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Rhode Island Energy™
a PPL company

May 30, 2023

VIA ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket No. 22-49-EL-The Narragansett Electric Company d/b/a Rhode Island Energy Advanced Metering Functionality Business Case
Responses to PUC Data Requests – PUC Set 6

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy ("Rhode Island Energy" or the "Company"), attached is the electronic version of Rhode Island Energy's responses to the Public Utilities Commission's Sixth Set of Data Requests in the above-referenced matter.[1] Pursuant to communications with Commission counsel, the Commission provided the Company with an extension to file its responses to the Commission's Sixth Set of Data Requests until May 30, 2023.

This filing includes a Motion for Protective Treatment of Confidential Information in accordance with Commission Rules of Practice and Procedure 1.3(H)(3) and R.I. Gen. Laws § 38-2-2(4) for the attachments provided in response to Request PUC 6-3, which contain confidential and proprietary business information. For the reasons stated in the Motion for Protective Treatment, the Company seeks protection from public disclosure of portions of Attachments PUC 6-3-1 through Attachment PUC 6-3-4. Accordingly, the Company has provided the Commission with an original and two complete, unredacted copies of the confidential document in a sealed envelope marked "**Contains Privileged and Confidential Information – Do Not Release**," and has included a redacted version of Attachments PUC 6-3-1 through PUC 6-3-4 for the public filing.

[1] Per communication from Commission counsel on October 4, 2021, the Company is submitting an electronic version of this filing followed by hard copies filed with the Clerk within 24 hours of the electronic filing.

Thank you for your time and attention to this matter. If you have any questions, please contact Jennifer Brooks Hutchinson at 401-316-7429.

Very truly yours,

Jennifer Brooks Hutchinson

Enclosures

cc: Docket No. 22-49-EL Service List
John Bell, Division
Leo Wold, Esq.

CERTIFICATE OF SERVICE

I certify that a copy of the within documents was forwarded by e-mail to the Service List in the above docket on the 26th day of May, 2023.

Adam M. Ramos, Esq.

The Narragansett Electric Company d/b/a Rhode Island Energy
Docket No. 22-49-EL Advanced Meter Functionality (AMF)
Service list updated 4/17/2023

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PUC 6-1

Request:

This question relates to Mr. Walnock's discussion at the May 10, 2023, Technical Session about the cloud setup costs.

a. Please explain what these costs are for.

b. Will they be capitalized?

c. Will the functionality be used by PA and/or KY affiliates in the future?

d. If the answer to part c is yes, please indicate if a portion of those costs will be allocated to PA and KY in the future. If not, why not?

Response:

a. The cloud setup costs include the initial installation of the Landis+Gyr Head End and Meter Data Management systems, which are described in the AMF Program and TSA Exit Program Statement of Work ("SOW") between Rhode Island Energy and Landis+Gyr Technology, Inc. ("Landis+Gyr") dated January 30, 2023, provided as Supplemental Attachment RR 1-4 to the Company's supplemental response to Record Request No. 1. These costs are identified as "milestone fees" and captured in Section 5 (Payment Milestones) of the SOW (see pages 39-41 of Supplemental Attachment RR 1-4). Rhode Island Energy will pay the milestone fees to Landis+Gyr upon Landis+Gyr's completion of the work specified for each milestone.

b. Yes, the costs for the cloud setup described in subpart (a), above, will be capitalized. The SOW allocates the costs between the TSA Exit and AMF milestones payments; none of the TSA Exit milestone payments are included in the Company's revenue requirement for the proposed AMF project.

c. The same cloud functionality that will be deployed for Rhode Island Energy may be deployed for PPL Corporation's ("PPL") Pennsylvania and/or Kentucky affiliates in the future; however, a final decision has not been made regarding such an approach. To the extent that Pennsylvania and/or Kentucky were to move to a cloud-based solution, the incremental costs associated with the cloud setup for the affiliate would be borne by Pennsylvania and/or Kentucky customers, as applicable, and not by Rhode Island Energy.

d. Please see response to subpart (c). If in the future the Pennsylvania and/or Kentucky affiliates moved to the same cloud-based solution as Rhode Island, the cloud setup costs identified in subpart (a) would not be retroactively allocated to Pennsylvania and/or Kentucky, respectively. To the extent such cloud-based functionality becomes a shared instance across the three affiliates in the future, the going-forward costs associated with the software for that functionality would be allocated in accordance with PPL's cost allocation methodology ("CAM").

PUC 6-2

Request:

Please explain where the data migration and conversion costs originate and where they are accounted for.

Response:

All costs associated with data migration and conversion are included in TSA Exit costs and are not included in Rhode Island Energy's AMF proposal. The data conversion and migration of the TSA Exit AMR data from the National Grid system(s) to the new PPL systems will be done by TCS, PPL's TSA Exit and AMF system integrator. All AMF meter data created will be new, 15-minute interval data; that will be created in the Headend system and Meter Data Management System upon the installation of a new AMF meter.

PUC 6-3

Request:

The AMF Program and TSA Exit Program Statement of Work filed on May 10, 2023, references Tata Consultancy Services (TCS) as the System Integrator.

a. Was TCS chosen through a competitive bid process?

b. If so, how many vendors bid?

c. Was TCS the lowest cost bidder?

d. If TCS was not chosen through a competitive bid process, how was TCS chosen?

e. When was TCS chosen?

f. Is there a separate contract between RI Energy or PPL and TCS related to Rhode Island work? If so, please provide a copy. If not, explain the arrangement.

g. Is TCS responsible for TSA work as well as AMF work?

h. If so, please explain in detail how the costs were allocated between the two activities.

i. Are the costs included in the AMF filing in this docket estimated or based on firm pricing? Please explain.

Response:

a. Yes, Tata Consultancy Services Limited ("TCS") was chosen as the system integrator for PPL Services Corporation ("PPL Services") as part of the IT hybrid services Request for Proposal.

b. PPL Services invited 7 bidders to participate, with 5 providing bids to PPL.

c. Yes, TCS was the lowest cost bidder.

d. Please see the Company's response to subpart (a).

e. TCS was selected through a competitive bid process conducted in late 2021. TCS and PPL Services executed a Master Professional Services Agreement ("MPSA") in February

2022, a copy of which is attached hereto as Attachment PUC 6-3-1. Upon signing the MPSA, TCS began individual scopes of work. The first metering-related scope of work with TCS was signed in March 2022 for the specific IT Strategy and Roadmap of Rhode Island Energy Metering, including both TSA Exit and potential Rhode Island AMF deployment ("Discovery & Strategy SOW"), a copy of which is attached hereto as Attachment PUC 6-3-2. This was completed and then led to a Statement of Work, which was executed on June 2022, for the Metering planning for implementation, including both TSA Exit and AMF deployment ("Planning SOW"), a copy of which is attached hereto as Attachment PUC 6-3-3. This work is complete. In September 2022, PPL Services signed a Statement of Work with TCS for TSA Exit and AMF implementation ("Implementation SOW"), a copy of which is attached hereto as Attachment PUC 6-3-4. Only costs for AMF implementation, pursuant to the Implementation Statement of Work, are included in the proposed revenue requirement for cost recovery.

f. Yes, please see the Company's response to subpart (e).

g. Yes, TCS is responsible for both TSA Exit work and AMF implementation work.

h. TSA Exit and AMF costs for TCS IT delivery services are allocated based on specific requirements identified and planned out during the scoping of the metering work, which led to the Planning SOW in June 2022 (Attachment PUC 6-3-3) and the Implementation SOW in September 2022. Each requirement was reviewed by both TCS and experienced PPL Services personnel to determine an expected effort level and the percentage of the requirement that was supporting TSA Exit and AMF capabilities. For illustrative summary purposes, requirements associated with implementing the AMF Headend system or AMF-enabled functionality, such as remote service switching, are assigned to the AMF implementation work. Requirements associated with supporting existing business operations, such as legacy meter reading, are assigned to TSA Exit work. In this manner the estimated effort for both TSA Exit and AMF implementation work was used to derive the costs assigned to each. The specific allocations are set forth in Attachment 6-3-4, and the Implementation SOW in Section 6 for Milestones and Pricing, and Section 5 for detailed milestone deliverables. Costs between TSA Exit and AMF are validated by PPL Services personnel against the Implementation SOW to ensure costs have been appropriately allocated prior to paying an invoice to TCS for a completed milestone.

i. TCS AMF costs in this docket are based on firm fixed milestone pricing as outlined in the TCS Implementation SOW.

Redacted

(Version 1.2) Contract Number: 9054523

MASTER PROFESSIONAL SERVICES AGREEMENT

between

TATA CONSULTANCY SERVICES LIMITED

and

PPL SERVICES CORPORATION

dated as of

February 28, 2022

Business Use

Redacted

TABLE OF CONTENTS

Business Use

Redacted

Master Professional Services Agreement

This Master Professional Services Agreement, dated as of February 28, 2022 (the "**Effective Date**"), is by and between Tata Consultancy Services Limited, a company incorporated in India, and authorized and registered to do business in the Commonwealth of Pennsylvania, United States, with branch offices located at 101 Park Avenue, 26th Floor, New York, NY 10178 USA (the "**Service Provider**") and PPL Services Corporation, a Delaware corporation with offices located at Two North Ninth Street, Allentown, PA 18101 (the "**Company**"). Service Provider and Company may be referred to individually as a "**Party**" or collectively as the "**Parties.**"

WHEREAS, Company desires to retain Service Provider to provide, from time to time, certain Services (as defined below) pursuant to Individual Releases and Authorizations issued from time to time by Company hereunder; and

WHEREAS, Service Provider has agreed with Company to perform the Services under each in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the Parties agree as follows:

ARTICLE I
DEFINITIONS

"**Affiliate**" of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with such Person. The term "control" (including the terms "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"**Agreement**" means these General Terms and Conditions, including any attachments and exhibits hereto, and all Releases incorporating these General Terms and Conditions, including any attachments and exhibits thereto, all written amendments, modifications and supplements to any of the foregoing, and any and all Authorizations.

"**Applicable Laws**" means all statutes, laws, ordinances, regulations, rules, codes, orders, constitutions, treaties, common laws, judgments, decrees, other requirements or rules of law of any federal, state, local or foreign government, political subdivision or regulatory agency thereof, or any arbitrator, court or tribunal of competent jurisdiction pertaining to the provision of Services.

"Authorization" means any authorization of Services issued pursuant to Section 3 of any General Release.

"Company Contractors" means vendors, suppliers, contractors, material-persons, consultants, and subcontractors of any tier, other than Service Provider Personnel, providing Deliverables or services directly or indirectly to Company in connection with the Services.

"Company Materials" means any documents, data, know-how, methodologies, software and other materials provided to Service Provider by Company, including computer programs, reports and specifications.

"Company Parties" means Company, its Affiliates and all Company Contractors, and their respective directors, officers, agents and employees.

"Damages" means: (a) for purposes of Section 11.2 only, any and all losses, costs, damages, injuries, liabilities, penalties and interest, including legal fees and expenses, suffered or incurred by any CompanyIndemnitee as a result of any Claim; and (b) for all other purposes, means, with respect to any party, any and all losses, costs, damages, injuries, liabilities, penalties and interest, including legal fees and expenses, suffered or incurred by such Party.

"**Deliverables**" means all documents, work product and other materials that are delivered to Company under this Agreement, any Release or Authorization, or prepared by or on behalf of Service Provider in the course of performing the Services, including any items identified as such in the applicable Statement of Work.

"**General Release**" means the applicable General Release executed as of or following the Effective Date by Company and Service Provider in substantially the form attached hereto as Exhibit A.

"**General Terms and Conditions**" means the terms and conditions comprising this Agreement, consisting of Articles 1 to 18 inclusive, including any exhibits hereto, as amended from time to time in accordance herewith.

"**Individual Release**" means the applicable Individual Release executed as of or following the Effective Date by Company or its Affiliates and Service Provider or its Affiliates in substantially the form attached hereto as Exhibit B.

"**Intellectual Property Rights**" means all (a) patents, patent disclosures and inventions (whether patentable or not), (b) trademarks, service marks, trade dress, trade names, logos, corporate names and domain names, together with all of the goodwill associated therewith, (c) copyrights and copyrightable works (including computer programs), and rights in data and databases, (d) trade secrets, know-how and other confidential information, and (e) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection in any part of the world.

"**Key Personnel**" means any Service Provider Personnel identified as being key in the Statement of Work.

"**Losses**" mean all losses, liabilities, fines, penalties, obligations, assessments, awards, deficiencies, costs and expenses whatsoever and Damages, including the costs of settlements, litigation, arbitration, judgments, penalties and interest, documented attorneys' fees, consultants' fees and other professional fees and disbursements and expenses (including documented attorneys' fees and litigation expenses incurred in establishing or enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers).

"**Milestone**" means an event or task described in the Statement of Work required to be completed by the relevant date set forth in the Statement of Work.

"Payment Schedule" means the Payment Schedule entered into by the Parties and attached to a Release as **Exhibit 2**.

"**Person**" means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other legal entity.

"Pre-Existing Materials" means all documents, data, know-how, methodologies, software and other materials provided by or used by Service Provider in connection with performing the Services, in each case developed or acquired by Service Provider independently of this Agreement or any enhancement or modifications made thereto as part of Services under this Agreement.

"**Release**" means the applicable Individual Release or applicable General Release, as applicable.

"**Service Provider Equipment**" means any equipment, systems, cabling or facilities provided by or on behalf of Service Provider and used directly or indirectly by Service Provider in the provision of the Services.

"**Service Provider Parties**" means Service Provider, its Affiliates and subcontractors, and their respective directors, officers, agents and employees.

"**Service Provider Personnel**" means all employees of Service Provider Parties engaged by Service Provider to perform the Services.

"**Services**" mean any professional or other services to be provided by Service Provider under this Agreement, any Release, or any Authorization, as described in more detail in the Statement of Work, and Service Provider's obligations under this Agreement, any Release, or any Authorization.

"**Statement of Work**" or "**SOW**") means the Statement of Work for the applicable Services set forth in Exhibit 1 to the applicable Individual Release or authorized from time to time pursuant to the applicable Authorization.

ARTICLE II
SERVICES

Section 2.1 The Parties are entering into these General Terms and Conditions and each General Release because Company and Service Provider may, from time to time, authorize Services to be released pursuant to one or more Authorizations and/or execute one or more Individual Releases identifying the Services to be provided by Service Provider, the compensation to be paid to Service Provider for such Services, the schedule for performing such Services and all other appropriate matters. In order to timely facilitate the efficient administration and documentation of the performance of the Services, the Parties desire to agree in advance to one or more General Releases which when executed shall be governed by these General Terms and Conditions as if these General Terms and Conditions were fully set out therein (subject to any modifications or supplements thereto set forth in the applicable General Release). In addition, the Parties may execute as of the date hereof or from time to time thereafter one or more Individual Releases which when executed shall be governed by these General Terms and Conditions as if these General Terms and Conditions were fully set out therein (subject to any modifications or supplements thereto set forth in the applicable Individual Release. The execution of these General Terms and Conditions is not a commitment by Company to Service Provider to issue any Release or to order or pay for any Services from Service Provider. The execution of one or more General Releases is not a commitment by Company to Service Provider to issue any Authorization or to order or pay for any Services from Service Provider. Service Provider shall not be obligated to perform any Services unless and until such Services are authorized by an Authorization or an Individual Release is executed with respect to such Services. Parties agree that Affiliates of the Parties may enter into Releases, Authorizations or Statements of Works and/or Service Provider may utilize the personnel, resources and facilities of its Affiliates listed in Exhibit F hereto (or that are expressly agreed to by Company in Releases, Authorizations or Statements of Works that are fully executed by both Parties) to provide Services and Deliverables to Company or an Affiliate of Company and Service Provider shall be responsible for the compliance of such Service Provider Affiliate's and such Service Provider Affiliate's personnel, resources and facilities compliance with this Agreement, any Releases, Authorizations or Statements of Works and Applicable Laws, and any and all liabilities arising from any failure of such Service Provider Affiliate's and the failure of such Service Provider's Affiliates or such Service Provider Affiliate's personnel, resources and facilities to comply with this Agreement, any Releases, Authorizations or Statements of Works and Applicable Laws. Each Release, Authorization or Statement of Work signed by an individual Company Affiliate together with the General Terms and Conditions incorporated therein, shall be deemed to constitute a separate agreement between Service Provider or Service Provider's Affiliate and the applicable Company Affiliate that

executed such Release, Authorization or Statement of Work. The Company Affiliate that executes its own Release, Authorization or Statement of Work shall be deemed to be "Company" hereunder for purposes of only such Release, Authorization or Statement of Work. Only such Company Affiliate shall be liable for its own obligations under such Release, Authorization or Statement of Work, and Service Provider shall look solely to such Company Affiliate (and not to Company) for satisfaction of any liability arising thereunder or relating thereto. Service Provider Affiliate shall invoice fees for the Services or Deliverables in accordance with the invoice terms of the applicable Company Affiliate Release, Authorization or Statement of Work, with designation on each invoice, as applicable, of the Fees allocated to the applicable Company Affiliate.

Section 2.2 Each Statement of Work shall include the following information, if applicable:

(a) a detailed description of the Services to be performed pursuant to the Statement of Work;

(b) the date upon which the Services will commence and the term of such Statement of Work;

(c) the location for performance of the Services;

(d) the name of the Service Provider Contract Manager (as defined in **Section 3.1(a)(i)**) and the position and role of any Key Personnel, unless the Parties otherwise agree to identify the name of such Key Personnel in the Statement of Work or amendment to a Statement of Work or in a writing executed by the Parties;

(e) Milestones;

(f) any criteria for completion of the Services; and

(g) any other terms and conditions agreed upon by the Parties in connection with the Services to be performed pursuant to such Statement of Work.

ARTICLE III
SERVICE PROVIDER'S OBLIGATIONS

Section 3.1 Service Provider shall:

(a) subject to the prior written approval of Company, not to be unreasonably withheld or delayed, appoint:

(i) a Service Provider employee to serve as a primary contact with respect to this Agreement and who will have the authority to act on behalf of Service Provider in connection with matters pertaining to this Agreement (the "**Service Provider Contract Manager**"); and

(ii) Service Provider Personnel, who shall be suitably skilled, experienced and qualified to perform the Services;

(b) maintain the same Service Provider Contract Manager throughout the Term (as defined in **Article VI**) except for changes due to: (i) Company's request pursuant to **Section 3.1(e)**; or (ii) replacement pursuant to **Section 3.1(d)**.

(c) assign Key Personnel to the Services if they are so designated in the Statement of Work. Once assigned, they will not be removed, replaced, or reassigned by Service Provider without Company's prior written consent in accordance with **Section 3.1(d)**.

(d) within 24 hours of being aware, notify Company if the Service Provider Contract Manager or any Key Personnel become unavailable for reasons beyond Service Provider's control, and submit justification in sufficient detail (including proposed replacement) to permit evaluation of the impact on the Services, and secure the approval of Company for any replacement. The Service Provider will provide Company with reasonable notice (in any event, no later than ten (10) business days, or such other period as agreed by Company in writing) of Service Provider employees it proposes to assign as Service Provider Personnel to perform the Services, which Service Provider employees shall be subject to the approval of Company before such Service Provider employee(s) are Service Provider Personnel and ten (10) days) prior written notice for removal of any Service Provider Personnel from performing Services (except in case of illness, death, termination/suspension of employment, resignation such prior written notice requirement is not applicable but notice shall be provided immediately thereafter).

(e) request from Company the clearance of the Service Provider Contract Manager and other Service Provider Personnel prior to their entrance onto Company property or access to any Company systems. Service Provider will supply all reasonable information requested by Company regarding such personnel. Company, at its sole discretion and for a lawful reason, may (i) determine whether and to whom to grant any clearance or access; (ii) request the removal and replacement of any Service Provider Personnel; or (iii) revoke access to Company property or systems. Service Provider will promptly comply with any request under (ii) or revocation under (iii) and not use such personnel again to perform the Services. Service Provider will provide Company with Company-approved replacements at no additional cost to Company and in a timely fashion so as not to impact the performance of the Services.

(f) before the date on which the Services are to start, obtain, and at all times during the Term maintain, all necessary licenses and consents applicable to the provision of the Services.

(g) prior to any Service Provider Personnel performing any Services: (i) ensure that such Service Provider Personnel have the legal right to work in the United States; and (ii) at its sole cost and expense, conduct background checks on such Service Provider Personnel, which background checks shall comprise, at a minimum, a review of civil litigation check (only for Service Provider Personnel who may have access to or receive Company's financial data, information or assets) references and criminal record, in accordance with state, federal and local law.

(h) comply, and ensure that all Service Provider Personnel and Permitted Subcontractors comply, with the following: (i) good industry practices; (ii) Applicable Laws; (iii) all Company procedures and requirements, including standards specified by Company and/or set forth in this Agreement regarding safety, security or health; (iv) Company's Contractor Environmental Requirements (Environmental Requirements"); and (v) Company's Standards of Conduct and Integrity for Suppliers ("Standards"). The current versions of the Environmental Requirements and Standards are available to Service Provider athttps://www.pplelectric.com/utility/about-us/for-ppl-suppliers.aspx/. Service Provider is responsible for reviewing and complying with any changes to the Environmental Requirements and/or Standards published by Company at the above-referenced web address.

(i) unless specifically exempted by law, perform its obligations under these General Terms and Conditions, any Release or any Authorization in full compliance with all applicable equal employment opportunity and affirmative action requirements including, but not limited to, those relating to: (i) equal employment opportunity and non segregated facilities; (ii) the utilization of minority business enterprises; (iii) Executive Order 11246, as amended and the implementing regulations at 41 CFR Part 60-1 et seq.; (iv) the Vietnam Era Veterans Readjustment Assistance Act of 1974, and the implementing regulations at 41 CFR Part 60-300 et seq.; (v) the Rehabilitation Act of 1973 and the implementing regulations at 41 CFR 60-741 et seq. and other requirements relating to the employment

of veterans and disabled persons, and all amendments thereto and all regulations, rules and orders issued thereunder; and (vi) the notification requirements established by 29 CFR Section 471, including displaying the required poster found at 29 CFR Section 471 Appendix A of Part A. **These laws, regulations and executive orders prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, national origin, religion, sex, sexual orientation or gender identity. Moreover, these laws, regulations and orders require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability. Moreover, these laws, regulations and executive orders prohibit unlawful harassment due to an individual's protected status (or statuses) and prohibit retaliation for engaging in protected conduct.**

(j) use its best efforts to assure that Small, Small Disadvantaged and Women Owned Small Business Concerns ("SSDWOSBCs") are given equitable opportunity to compete for procurements resulting from this Agreement. In this regard, Service Provider shall comply with the requirements in 48 CFR 52.219-8, which is hereby incorporated by reference. Service Provider shall also agree to participate in the SSDWOSBC set aside plan as required by 48 CFR 52.219-9.

(k) maintain books, records, accounts, documents and other information and accounting procedures and practices relating to the Agreement ("Records") sufficient to analyze Service Provider's (and its Permitted Subcontractors') fees and charges (other than confidential internal cost and margin records) and the performance and compliance with this Agreement. Records will be retained for a minimum of three (3) years after final payment. Service Provider will conduct such audits of itself and its Permitted Subcontractors to verify continuing full compliance with this Agreement. During the Term and for a period of one year after final payment, Company or its designee will have the right to access Service Provider's and its Permitted Subcontractors' facilities and systems during normal business hours (9:00 AM – 5:00 PM EST) for the purposes of inspection of the Services and to review, audit and verify Service Provider's fees and charges, performance and compliance with this Agreement. Service Provider and its Permitted Subcontractors will cooperate with Company's representatives in furnishing such access, Records and assistance as may be reasonably requested. Any such audit will be at Company's expense. However, if an audit reveals the overcharging of Company by Service Provider of any amount, Company may offset such amount against payments not yet made to Service Provider by Company under this Agreement and/or Company shall be entitled to a credit or refund, as selected by Company, of such amount from Service Provider. In addition, if an audit reveals (a) the overcharging of Company by Service Provider of [redacted] or more, or (b) any other material breach of this Agreement, Service Provider will reimburse Company within 30 days for all third party costs and expenses of the audit and correct any other material breach revealed by any such audit. If any material breach is not remedied by Service Provider within any applicable cure period, then Company may then perform additional audits at Service Provider's expense until an audit shows no overcharges or material breach.

(l) take all reasonable steps to avoid damaging or interfering with Company's work and property. Service Provider and Service Provider Personnel will not interfere with, disconnect, destroy, damage or otherwise disturb Company's work or property (including data and systems) without first obtaining Company's written consent. Subject to Section Article XII, Service Provider will be liable for such damages caused to Company's work or property (including data and systems) as a result of the negligent acts or omissions of Service Provider and Service Provider Personnel.

(m) obtain Company's written approval, which may be given or withheld in Company's sole discretion, prior to entering into agreements with or otherwise engaging any Person, including all subcontractors and Affiliates of Service Provider, other than Service Provider's employees to provide

any Services and Deliverables to Company (each such approved subcontractor or other third party, a "**Permitted Subcontractor**"). Company's approval shall not relieve Service Provider of its obligations under the Agreement, and Service Provider shall remain fully responsible for the performance of each such Permitted Subcontractor and its employees and for their compliance with all of the terms and conditions of this Agreement as if they were Service Provider's own employees. Nothing contained in this Agreement shall create any contractual relationship between Company and any Service Provider subcontractor or supplier.

(n) require each Permitted Subcontractor to be bound in writing by the confidentiality and intellectual property assignment or license provisions of this Agreement, and, upon Company's written request, to enter into a non-disclosure or intellectual property assignment or license agreement in a form that is reasonably satisfactory to Company.

(o) To the extent applicable to the Services to be performed under a Release or Statement of Work (or, to the extent permitted hereunder, cause the Services to be performed) in accordance with Exhibit D, and shall otherwise comply with the terms and conditions of Exhibit D.

(p) Perform the Services (or, to the extent permitted hereunder, cause the Services to be performed) in accordance with Exhibit E, and shall otherwise comply with the terms and conditions of Exhibit E.

Section 3.2 Service Provider is responsible for all Service Provider Personnel and for the payment of their compensation, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits. Service Provider expressly agrees and acknowledges that it is solely responsible for compliance with any and all laws and regulations pertaining to immigration, workers compensation, tax withholding, unemployment compensation, disability benefits, pension benefits, medical benefits, occupational safety and health, wage payment, wages and hours, or any other federal or state law which imposes affirmative obligations on an employer. Service Provider agrees to pay the employer's share of applicable state taxes, federal taxes, workers' compensation, F.I.C.A. and federal unemployment insurance and will furnish proof of said payments upon Company's request.

Section 3.3 Service Provider acknowledges that time is of the essence with respect to Service Provider's obligations hereunder and that prompt and timely performance of all such obligations, including all timetables, Milestones and other requirements in these General Terms and Conditions, any Release and any Authorization is strictly required.

Section 3.4 The obligations of Service Provider under these General Terms and Conditions, any Release and any Authorization shall be performed fully within the United States or India, unless approved in writing in advance by Company.

ARTICLE IV
COMPANY'S OBLIGATIONS

Section 4.1 Company shall:

(a) reasonably cooperate with Service Provider in all matters relating to the Services and appoint a Company employee to serve as the primary contact with respect to this Agreement and who will have the authority to act on behalf of Company with respect to matters pertaining to this Agreement (the "**Company Contract Manager**");

Redacted

(b) provide, subject to **Section 3.1(e) and (h)**, such access to Company's premises and such office accommodation and other facilities as may reasonably be requested by Service Provider and agreed upon by Company in writing in advance, for the purposes of performing the Services;

(c) respond promptly to any reasonable Service Provider request to provide direction, information, approvals, authorizations or decisions that are reasonably necessary for Service Provider to perform Services in accordance with the requirements of this Agreement;

(d) provide in a timely manner such Company information, complete and accurate in all material respects, as Service Provider may reasonably request and Company considers reasonably necessary for Service Provider to carry out the Services;

Section 4.2 If Service Provider's performance of its obligations under these General Terms and Conditions, any Release or any Authorization is prevented or delayed by any wrongful act or omission of Company or its agents, subcontractors, consultants or employees outside of Service Provider's reasonable control, Service Provider shall not be deemed in breach of its obligations thereunder or otherwise liable for any costs, charges or losses sustained or incurred by Company, in each case, to the extent arising directly or indirectly from such prevention or delay.

Section 4.3 Unless any other process or timeframe is specified in the applicable Release, Authorization or Statement of Work, Company will within [redacted] of delivery of the Deliverable (or any other period agreed in applicable Release, Authorisation or Statement of Work), notify of its acceptance ("Acceptance") or rejection (with reasonable details of non-conformities) of the applicable Deliverable (adhering to the mutually agreeable acceptance criterion stated in the SOW or agreed thereafter between both parties in course of project execution) provided pursuant to the terms of this Agreement or the applicable Release, Authorization or Statement of Work. In the event Company failed to notify its acceptance or rejection within such period, then Acceptance of the Deliverable shall be deemed to have occurredby Company.

ARTICLE V
CHANGE ORDERS

Section 5.1 If either Party wishes to change the scope or performance of the Services, it shall submit details of the requested change to other Party in writing. Service Provider shall, within a reasonable time after such request (but not more than five (5) business days after receipt of Company's written request), provide a written estimate to Company of:

(a) the likely time required to implement the change;

(b) any necessary variations to the fees and other charges for the Services arising from the change;

(c) the likely effect of the change on the Services; and

(d) any other impact the change might have on the performance of the Services.

Section 5.2 Promptly after receipt of the written estimate, the Parties shall negotiate and agree in writing on the terms of such change (a "**Change Order**"). Neither Party shall be bound by any Change Order unless mutually agreed upon in writing in accordance herewith.

Redacted

ARTICLE VI
TERM

This Agreement shall enter into full force and effect as of the Effective Date and remain in full force and effect, subject to any earlier termination of all or any portion of the Agreement or the Services in accordance herewith, on the third anniversary of the Effective Date provided, however, only with respect to those Release or Authorisation which has a term beyond the expiry or termination of the Agreement, this Agreement shall remain in full force with respect to such Release or Authorisation until the date on which Service Provider has completed the performance of all of the Services under each Individual Release and Authorization and there are no outstanding obligations under the Agreement **(the "Term")**, unless sooner terminated pursuant to **Article XIII**; provided that, Company shall have the right by written notice to Service Provider delivered at least thirty-days' in advance of the third anniversary (or fourth anniversary in the event that Company has previously timely exercised its right to extend the Term) of the Effective Date to extend the Term such that clause (i) thereof refers to the fourth anniversary (or fifth anniversary in the event that Company has previously timely exercised its right to extend the Term) of the Effective Date, in which case such clause (i) shall automatically without further action refer to the fourth anniversary or fifth anniversary of the Effective Date, as the case may be.

ARTICLE VII
FEES AND EXPENSES; PAYMENT TERMS

Section 7.1 In consideration of the provision of the Services by the Service Provider pursuant to any Release or Authorization, and the rights granted to Company under these General Terms and Conditions, Company shall pay the fees set forth in such Release or Authorization. Payment to Service Provider of such fees and the reimbursement of expenses pursuant to this **Article VII** shall constitute payment in full for the performance of the Services, and, Company shall not be responsible for paying any other fees, costs or expenses. Service Provider may not charge Company **more than the** "TOTAL PRICE" shown in the Release or Authorization without the prior written approval of Company. [redacted] In the event the respecitive index is no longer reported, it shall be replaced by such other index as the Parties may agree most closely resembles such index.

Section 7.2 If the Release or Authorization provides that Service Provider be reimbursed for travel expenses incurred while discharging duties connected with the Services, the reimbursement for lodging, meals and incidental expenses shall be limited to reasonable and necessary expenses with adequate supporting documentation. These expenses shall not exceed the maximum per diem rates, as prescribed by the U.S. General Services Administration at http://www.gsa.gov/portal/content/104877, "Per Diem Rates," applicable to the work locality. Reimbursement for personal car mileage incurred by Service Provider Personnel in performance of the Services also shall not exceed the standard mileage rate permitted by IRS guidelines. Service Provider must submit appropriate documentation supporting charges for lodging, meals and incidental expenses in order to receive consideration for reimbursement by Company.

Section 7.3 Service Provider will submit invoices with sufficient detail and documentation to allow verification of all charges. Company will pay the undisputed invoice amount within forty-five (45) days following the date of a correct invoice.

Section 7.4 Service Provider shall be responsible for billing state, county, and local sales tax to the extent applicable to the services (staff augmentation/help supply) performed pursuant to this Contract. Upon request, Services Provider shall provide evidence to the Company that the Service Provider has a sales tax license to collect and remit such tax to the appropriate taxing authority. Company shall not be responsible for any penalty or interest pursuant to non-payment of such taxes by Service Provider. In addition, Service Provider shall be responsible for all other taxes including, but not limited to, franschise and similar taxes on capital, employment taxes associated with its employees, property taxes, gross receipt taxes, and taxes based on its income, but excluding any taxes on Company's income.

Section 7.5 Without prejudice to any other right or remedy it may have, Company reserves the right to set off at any time any undisputed amount owing to it by Service Provider under this Agreement against any undisputed amount payable by Company to Service Provider under this Agreement.

ARTICLE VIII
INTELLECTUAL PROPERTY RIGHTS; OWNERSHIP

Section 8.1 Except as set forth in **Section 8.3**, Company is, and shall be, the sole and exclusive owner of all right, title and interest in and to the Deliverables, including all Intellectual Property Rights therein. Service Provider agrees, and will cause its Service Provider Personnel to agree, that with respect to any Deliverables that may qualify as "work made for hire" as defined in 17 U.S.C. §11, such Deliverables are hereby deemed a "work made for hire" for Company. To the extent that any of the Deliverables do not constitute a "work made for hire," Service Provider hereby irrevocably assigns to Company, and shall cause the Service Provider Personnel to irrevocably assign to Company, in each case without additional consideration, all right, title and interest throughout the world in and to the Deliverables, including all Intellectual Property Rights therein. Service Provider shall cause the Service Provider Personnel to irrevocably waive, to the extent permitted by Applicable Laws, any and all claims such Service Provider Personnel may now or hereafter have in any jurisdiction to so-called "moral rights" with respect to the Deliverables.

Section 8.2 Upon the request of Company, Service Provider shall, and shall cause the Service Provider Personnel to, promptly take such further actions, including execution and delivery of all appropriate instruments of conveyance, as may be necessary to assist Company to prosecute, register, perfect or record its rights in or to any Deliverables.

Section 8.3 Parties agree that this Agreement is not intended for licensing of certain Service Provider's Proprietary software or tools which require a separate written license agreement to be agreed by the Parties in writing and, if such license agreement is required, Service Provider agrees in good faith to enter into such license agreement with Company under commercially reasonable and industry standard terms and conditions. Service Provider and its licensors are, and shall remain, the sole and exclusive owners of all right, title and interest in and to the Pre-Existing Materials, including all Intellectual Property Rights therein. Service Provider hereby grants Company an irrevocable, perpetual, fully paid-up, royalty-free, non-transferable (except in accordance with **Section 18.6**), non-sublicenseable, worldwide license to use, perform, display, execute, reproduce, distribute, transmit, modify (including to create derivative works), import, make, have made, and otherwise exploit any Pre-Existing Materials to the extent incorporated in, combined with or otherwise necessary for the use of the Deliverables (except with respect to Service Provider owned software necessary for use of the Deliverables the use of which shall be pursuant to license terms and conditions agreed to by the Parties as part of an Authorization, Release or Statement of Work). The foregoing license does not authorize Company to separate

Pre-Existing Materials from the Deliverable in which they are incorporated. All other rights in and to the Pre-Existing Materials are expressly reserved by Service Provider.

Section 8.4 Company and its licensors are, and shall remain, the sole and exclusive owner of all right, title and interest in and to the Company Materials, including all Intellectual Property Rights therein. Service Provider shall have no right or license to use any Company Materials except solely during the Term to the extent necessary to provide the Services to Company. All other rights in and to the Company Materials are expressly reserved by Company.

Section 8.5 Each Party may use the general knowledge and experience gained and retained by such Party in the unaided human memory of its personnel in the performance of this Agreement and Statement of Work(s) hereunder without any use or aid of the other Party's Confidential Information or except as otherwise provided for in a Release or Authorization. Nothing contained in this Section shall relieve either Party of its confidentiality obligations with respect to the proprietary and Confidential Information or material of the other party.

ARTICLE IX
CONFIDENTIAL INFORMATION

Section 9.1 As used in this Agreement, "Confidential Information" means information or material, whether tangible or intangible and in whatever form provided, that is provided by one Party (the "**Disclosing Party**") to the other Party (the ("**Receiving Party**") in connection with this Agreement before or after the Effective Date and that should reasonably have been understood to be confidential or proprietary to the Disclosing Party because of legends or other markings, the circumstances of disclosure or the nature of the information itself, and includes information or materials that contain, reflect or are derived from the Confidential Information. Confidential Information also includes any information owned by a third party that was (i) disclosed by such third party to Disclosing Party subject to a confidentiality agreement, and (ii) disclosed by Disclosing Party to Receiving Party solely for use by Receiving Party in connection with this Agreement. The Receiving Party agrees it will: (a) use the Confidential Information solely in connection with and pursuant to this Agreement; (b) use reasonable precautions and exercise due care to maintain the confidentiality of the Confidential Information; and (c) not disclose the Confidential Information except with the Disclosing Party's prior written consent or as otherwise permitted in this Agreement. Service Provider may disclose Company's Confidential Information to Service Provider Personnel only to the extent they need the Confidential Information in connection with Service Provider's performance of its obligations hereunder and are bound by confidentiality obligations no less protective of Company than those in this Agreement. Company may disclose Service Provider's Confidential Information to Company Parties to the extent they need the Confidential Information in connection with the Services provided under this Agreement and are bound by confidentiality obligations no less protective of Service Provider than those in this Agreement. Service Provider will be liable for any use or disclosure of Company's Confidential Information by Service Provider in violation of this Agreement, and Company will be liable for any use or disclosure of Service Provider's Confidential Information by Company in violation of this Agreement. Upon request, the Receiving Party will promptly return or, at the Disclosing Party's request, destroy all copies of the Disclosing Party's Confidential Information other than those retained solely for archival or administrative purposes. The restrictions on use and disclosure of Confidential Information in this **Section 9.1** will not apply to any information or materials to the extent: (u) already known to the Receiving Party before receipt from the Disclosing Party; (v) it is or becomes publicly available other than through the acts of the Receiving Party; (w) it is received by the Receiving Party from a third party who, to the Receiving Party's knowledge, is not prohibited from disclosing the information to the Receiving Party by a contractual, fiduciary or other duty; (x) developed or derived by the Receiving Party without the aid, application or use of the Confidential Information; (y) authorized for disclosure in writing by the Disclosing Party, to the extent of such authorization; or (z) the Receiving Party is advised by legal counsel that it is required to disclose by law or legal process, provided, however, that prior to any such disclosure, the Receiving Party will give the Disclosing Party as much advance notice of the requirement as is practical, will cooperate with the Disclosing Party at the Disclosing Party's expense to protect against

disclosure, and if disclosure is still required, then disclose only such part of the Confidential Information that its legal counsel advises it must disclose and only to the extent of its compliance with such law or legal process.

Section 9.2 In the event that Company provides Service Provider with access to any non-public personal information of Company employees or customers ("**Personal Information**") in connection with the performance of this Agreement, Service Provider will comply with all Company procedures and practices for protecting the confidentiality, security and integrity of Personal Information, in addition to the requirements of **Section 9.1**, and the exceptions to the use or disclosure of Confidential Information in clauses (u) through (x) above shall not apply to Personal Information.

Section 9.3 In addition to the obligations under **Section 9.1**, and except as provided in the disclosure requirements of 10 CFR Part 21, Service Provider may not make any public statement or other announcement (including issuing a press release or pre-briefing any member of the press or other third party) relating to the Services or the terms or existence of this Agreement without the prior written approval of Company, at its sole discretion.

Section 9.4 The obligations set forth in this **Article IX** shall remain in effect for three (3) years after the expiration or termination of this Agreement. Notwithstanding the foregoing, with respect to any Personal Information, the restrictions set forth in this **Article IX** shall remain in effect indefinitely from the date such Personal Information was first disclosed to or obtained or discovered by Receiving Party.

Section 9.5 Upon expiration or termination of this Agreement or any part thereof for any reason Receiving Party shall (i) return to Disclosing Party all documents and tangible materials (and any copies) pertaining in any manner to the expired or terminated Services containing, reflecting, incorporating or based on the Disclosing Party's Confidential Information, (ii) permanently erase all of Disclosing Party's Confidential Information (or such Confidential Information applicable to terminated part of the Agreement if only part of the Agreement is terminated) from its computer systems and (iii) certify in writing to Disclosing Party that it has complied with the requirements of this clause; *provided, however*, that Company may retain copies of any Confidential Information of Service Provider incorporated in the Deliverables or to the extent necessary to allow it to make full use of the Services and any Deliverables.

ARTICLE X
REPRESENTATIONS AND WARRANTIES

Section 10.1 Each Party represents and warrants to the other Party that:

(a) it is duly organized, validly existing and in good standing as a corporation or other entity as represented herein under the laws and regulations of its jurisdiction of incorporation, organization or chartering;

(b) it has the full right, power and authority to enter into this Agreement, to grant the rights and licenses granted hereunder and to perform its obligations hereunder;

(c) the execution of this Agreement by its representative whose signature is set forth at the end hereof has been duly authorized by all necessary corporate action of the Party; and

(d) when executed and delivered by such Party, this Agreement will constitute the legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms.

Section 10.2 Service Provider represents and warrants to Company that:

(a) it shall perform the Services using personnel of required skill, experience and qualifications and in a professional and workmanlike manner in accordance with generally recognized industry standards for similar services and shall devote adequate resources to meet its obligations under these General Terms and Conditions and each applicable Release and Authorization;

(b) During the period of thirty days from the date of Acceptance under Section 4.3 (**"Warranty Period"**), and subject to Exceptions provided in sub-clause (e) below, all Services and Deliverables will be in conformity in all material respects with all requirements and specifications stated in these General Terms and Conditions and each applicable Release and Authorization;

(c) it is in compliance with, and shall perform the Services in compliance with, all Applicable Laws;

(d) it is in compliance with any and all laws and regulations pertaining to immigration, workers compensation, tax withholding, unemployment compensation, disability benefits, pension benefits, medical benefits, occupational safety and health, wage payment, wages and hours, or any other federal or state law which imposes affirmative obligations on an employer. Service Provider agrees to pay the employer's share of applicable state taxes, federal taxes, workers' compensation, F.I.C.A. and federal unemployment insurance and will confirm in writing of said payments upon Company's request.

(e) (i) none of the Services, Deliverables and Company's use thereof infringe or will infringe any Intellectual Property Right of any third party arising under the Applicable Laws of the United States, and, (ii) as of the Effective Date, there are no pending or, to Service Provider's knowledge, threatened claims, litigation or other proceedings pending against Service Provider by any third party based on an alleged violation of such Intellectual Property Rights due to Services or Deliverable, in each case, excluding any infringement or claim, litigation or other proceedings to the extent arising out of (x) any instruction, information, designs, specifications or other materials provided by Company to Service Provider, (y) use of the Deliverables in combination with any materials or equipment not supplied or specified by Service Provider, if the infringement would have been avoided by the use of the Deliverables not so combined, and (z) any modifications or changes made to the Deliverables by or on behalf of any Person other than Service Provider ("Exceptions").

Section 10.3 In the event the Services do not conform to these warranties, Service Provider, at no cost or expense to Company, will re-perform the Services to correct any nonconformity in a manner and time acceptable to Company. In the event Company does not require Service Provider, or Service Provider is unable in the manner and time set forth by Company, to correct any nonconformity, Service Provider will not invoice Company for any non-conforming Services and will reimburse Company within thirty (30) days of Company's request if an invoice has been previously paid for the nonconforming Services if the non-conforming services are rejected by Company or Service Provider is unable in the manner and time set forth by Company to correct any nonconformity. Subject to **Article XII**, in addition to its obligation to re-perform, Service Provider shall be liable for, any and all Damages incurred by Company or any Company Indemnitee arising out or relating to any breach of these warranties.

Section 10.4 EXCEPT FOR THE EXPRESS WARRANTIES IN THESE GENERAL TERMS AND CONDITIONS AND EACH APPLICABLE RELEASE AND AUTHORIZATION, (A) EACH PARTY HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE UNDER THIS AGREEMENT, AND (B) SERVICE PROVIDER SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

Redacted

ARTICLE XI
INDEMNIFICATION

Section 11.1 For purposes of this **Article XI**: **"Claims" means** third party claims, demands, suits, allegations, or causes of action by a third party, whether at law or in equity, and whether based on statute, regulation, rule, ordinance, code, or standard or on theories of contract, tort, strict liability or otherwise (even if such claims may be later proven false, fraudulent, or groundless regardless of whether a lawsuit has been filed). For the avoidance of doubt, Claims includes, but is not limited to, investigations conducted by any governmental agencies and entities. **"Company Indemnitees"** means Company and its Affiliates and their respective directors, officers, and employees.

Section 11.2 Service Provider shall indemnify, defend, and hold harmless Company Indemnitees from and against all Claims and Losses related to, arising out of, based upon, occasioned by, or in connection with Claims brought against any or all Company Indemnitees:

(a) arising from or in any manner relating to any Service Provider **Parties'** negligence (subject to the limit set forth in Section 12.3(c)), gross negligence or willful misconduct in performance of the Services, or willful misconduct resulting in failure to comply with the terms of this Agreement. [redacted] Service Provider agrees that nothing in the preceding sentence shall affect Service Provider's obligation to indemnify, defend and hold harmless as set forth above in this Section 11.2(a);

(b) by or on behalf of Service Provider Personnel, whether or not such Service Provider Personnel have **been declared to have "common law" or "employee" status** with respect to the Services performed under this Agreement. Such Claims include those arising from or in any manner relating to injuries to or death of Service Provider Personnel, whether (i) arising from or in any manner relating to the active, passive, concurrent, or sole negligence, including gross negligence, or other legal fault of one or more Service Provider Parties, the active, passive, or concurrent negligence, or other legal fault of one or more Company Indemnities , or the active, passive, or concurrent negligence, or other legal fault of both one or more Service Provider Parties and one or more of Company Indemnitees, or (ii) based on tort, contract, or any other legal theory. Service Provider expressly acknowledges and agrees that the indemnity provided for in this Section 11.2(b) shall not be limited by the provisions of any **Workers' Compensation** Act or other similar statute or provisions. On behalf of Service Provider Parties, as between Company Indemnitees and Service Provider Parties, Service Provider expressly waives any and all immunity Service Provider may have for injuries to or death of Service Provider **Personnel under the Pennsylvania Workers' Compensation** Act or similar statutes or provisions. [redacted]

Redacted

[redacted]The Parties agree that nothing in the preceding sentence shall affect Service Provider's (x) obligation to indemnify, defend and hold harmless as set forth above in this Section 11.2(b) or (y) express waiver of immunity as set forth above in this Section 11.2(b);

(c) by or on behalf of any governmental body, agency, other regulatory authority or other third party (including Service Provider Personnel) to the extent arising from failure to pay premiums, contributions, or taxes payable under any workers' compensation, unemployment compensation, disability benefit, pension benefit, medical benefit, or tax withholding laws as well as liability under immigration laws, state or federal anti-discrimination statutes, state or federal wage payment or wage and hour laws, the Occupational Safety and Health Act, the Employee Retirement Income Security Act, the Affordable Care Act, or any other state or federal statute which exposes an employer to liability arising out of the employment relationship for which any Company Indemnitees are alleged to be liable.

(d) by or on behalf of third parties arising out of or connected with any infringement or alleged infringement of any patent, copyright, trademark, service mark, trade or business secret, or other intellectual property right of such third parties in connection with any Service Provider Parties' performance and delivery of the Services hereunder or Company's use thereof provided however, Service Provider shall not be liable to indemnify under this Section 11.2(d) if any such Claims or Losses are due to Exceptions specified in section 10.2(e). In addition to the indemnity obligation set forth in this Section 11.2(d), Service Provider at its expense shall (i) use its best efforts to procure for Company a license to use such goods or services or part thereof on terms no more restrictive than those contained in this Agreement; (ii) if the result described in (i) above is not possible, even after the use of Service Provider's best efforts, then Service Provider shall use its best efforts to modify the goods or services so as not to infringe any third party's intellectual property rights, provided that such modification results in the goods or services being equally suitable and functionally equivalent; and/or (iii) if the results described in (i) and (ii) above are not possible, even after the use of Service Provider's best efforts, then Service Provider shall provide Company with substitute or replacement goods and/or services and a right to use the same, provided that such goods and/or services shall (alone or in combination with the portion of the goods and/or services not subject to the third party's Claim) perform in an equally suitable and functionally equivalent manner. In the event Service Provider is not able to accomplish either of (i), (ii), or (iii) above, then such failure shall constitute a material breach by Service Provider hereunder entitling Company to exercise all rights and remedies in connection therewith (including the right to terminate this Agreement upon written notice to Service Provider and to require Service Provider to refund or credit, as selected by Company, a pro rata portion of any amounts paid by Company for the relevant Services).

(e) with respect to non-payment of any amounts due to any or all of the subcontractors pursuant to any or all of the subcontracts that are payable in connection with the Services.

(f) arising from or in any manner relating to any negligent act or omission of any Service Provider Party that results in, or causes in whole or in part, tangible property (including systems) of any Company Indemnitee, to be damaged, destroyed or impaired, unless such act or omission was expressly and specifically required pursuant to applicable Statement of Work and made in accordance with all of the terms and conditions of this Agreement, or arising from any breach by Service Provider of its obligations with respect to Confidential Information set forth in Article IX or its obligations concerning Information under Exhibit E.

Redacted

Section 11.3 Company shall give prompt notice to Service Provider of any Claim subject to indemnification hereunder; provided that the failure of Company to give such notice shall not relieve Service Provider of its indemnification obligations under this Agreement, except to the extent that such failure materially prejudices the rights of Service Provider. Service Provider's duty to defend arising under this **Article XI** shall be with counsel reasonably acceptable to Company, and Service Provider shall cause such counsel to consult with Company on all major decisions relating to Claims. Service Provider shall not, without the prior written consent of each applicable Company Indemnitee, settle or compromise, or permit a default judgment or a consent to entry of any judgment with respect to, any Claim for which Service Provider has indemnification obligations under this Agreement, unless such settlement or compromise or judgment is solely for the payment of money and includes a full, unconditional release of each applicable Company Indemnitee with respect to all liability related to such Claim. Company reserves the right to defend itself at its own expense and, in the event that Service Provider fails to timely assume or diligently conduct the defense of any Claim under this **Article XI** or Company reasonably concludes that there may be legal defenses available to any Company Indemnitee which are different from or additional to, or inconsistent with, those available to Service Provider, Company shall have the right to select up to one separate counsel to participate in such action or proceeding on its own behalf at Service Provider's expense. Service Provider's monetary obligations under this **Article XI** shall not be limited to the amount of insurance coverage carried or required to be carried by Service Provider under this Agreement or limited in any way by any limitation on the amount or type of Damages, compensation or benefits payable by or for Service Provider or any subcontractor or Company or any of its Affiliates under any insurance policy or workers' or workmen's compensation acts, disability benefits acts or other employee benefit acts.

Section 11.4 Service Provider acknowledges that the Parties are contractually allocating the risks described in Section 11.2 to Service Provider. The defense and indemnity provided in this **Article XI** shall survive the expiration or termination of this Agreement, including to the extent third party liability arises after performance of this Agreement.

Section 11.5 [redacted]

ARTICLE XII
LIMITATION OF LIABILITY

Section 12.1 EXCEPT AS OTHERWISE PROVIDED IN SECTION 12.3, IN NO EVENT WILL EITHER PARTY BE LIABLE TO THE OTHER OR TO ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL OR PUNITIVE DAMAGES WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, REGARDLESS OF WHETHER SUCH DAMAGE WAS FORESEEABLE AND WHETHER OR NOT SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Section 12.2 EXCEPT AS OTHERWISE PROVIDED IN **SECTION** 12.3 **AND SECTION 12.4**, IN NO EVENT WILL EITHER PARTY'S LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, [redacted]

Redacted

Section 12.3 The exclusions and limitations in Section 12.1, **Section 12.2 and Section 12.4 (except as otherwise set forth herein** shall not apply to:

(a) Damages or other liabilities arising out of or relating to a Party's failure to comply with its obligations under **Article VIII** (Intellectual Property Rights; Ownership);

(b) Damages or other liabilities arising out of or relating to a Party's failure to comply with its obligations under **Article IX** (Confidentiality);

(c) a Party's indemnification obligations under **Article XI** (Indemnification)

(d) Damages or other liabilities arising out of or relating to a Party's gross negligence, willful misconduct or intentionally wrongful acts; and

(e) death or bodily injury or damage to real or tangible personal property resulting from a Party's negligent acts or omissions.

Section 12.4

ARTICLE XIII
TERMINATION; EFFECT OF TERMINATION

Section 13.1 Company, in its sole discretion, may terminate this Agreement, or any or all Releases or Authorizations, in whole or in part, at any time for its convenience, without cause and without any requirement of changed circumstances related to this Agreement or any Releases or Authorizations at any time by providing at least sixty (60) days' prior written notice to Service Provider and Company will pay Service Provider for fees incurred for Services performed and Deliverables delivered in compliance with the Agreement or the applicable Authorization or Release upto the effective date of termination along with termination charges, if applicable and agreed in the applicable Authorization or Release between Parties

Section 13.2 Either Party may terminate this Agreement, any or all Releases or Authorizations, in whole or in part, as applicable, effective upon written notice to the other Party (the **"Defaulting Party"**), if the Defaulting Party:

(a) materially breaches these General Terms and Conditions or any Release or Authorization, and such breach is incapable of cure, or with respect to a material breach capable of cure, the Defaulting Party does not cure such breach within thirty (30) days after receipt of written notice of such breach.

(b) (i) becomes insolvent or admits its inability to pay its debts generally as they become due; (ii) becomes subject, voluntarily or involuntarily, to any proceeding under any domestic or foreign bankruptcy or insolvency law, which is not fully stayed within seven (7) business days or is not dismissed or vacated within forty-five (45) days after filing; (iii) is dissolved or liquidated or takes any corporate action for such purpose; (iv) makes a general assignment for the benefit of creditors; or (v) has a receiver, trustee, custodian or similar agent appointed by order of any court of competent jurisdiction to take charge of or sell any material portion of its property or business.

Section 13.3 Upon termination for any reason:

(a) Service Provider shall (i) terminate the Services specified in the applicable termination notice (but shall continue with all other Services not so terminated in accordance with the terms of this Agreement), (ii) promptly deliver to Company all Deliverables in connection therewith (whether complete or incomplete) for which Company has paid, (iii) promptly remove any Service Provider Equipment located at Company's premises in connection with such terminated Services, and (iv) on a pro rata basis, repay all fees and expenses paid in advance for any terminated Services or Deliverables in connection therewith which have not been provided.

(b) In no event shall Company be liable for any Service Provider Personnel termination costs arising from the expiration or termination of this Agreement. Upon any termination, Company shall make payments of all amounts due up to the effective date of termination for Services and Deliverables performed in compliance with this Agreement and the applicable Authorization or Release.

Section 13.4 The rights and obligations of the Parties set forth in this **Sections 13.3** and **Article III**, **Article VIII**, **Article IX**, **Article X**, **Article XI**, **Article XII**, **Article XIV**, **Article XV**, and **Article XVIII**, and any right or obligation of the Parties in this Agreement which, by its nature, should survive termination or expiration of this Agreement, will survive any such termination or expiration of this Agreement.

ARTICLE XIV
INSURANCE

Section 14.1 Service Provider shall, and shall cause all subcontractors (if any) to, at Service Provider's sole cost, purchase and maintain the minimum insurance coverages specified in this **Article XIV** and in Exhibit C (**"Required Coverages"**), and shall maintain such coverages in full force and effect through the expiration of this Agreement. All insurance shall be placed with insurance companies fully licensed to do business in the State where the Services are to be performed, and include all of the requirements set forth in this **Article XIV**. The insurance companies must have an A.M. Best Insurance Rating of at least 'A-' or better and financial strength category of VIII or higher

Section 14.2 Each insurance policy required hereunder (whether by Exhibit C or otherwise by this Agreement), except Workers' Compensation/Employer's Liability and Professional Liability, Cyber Liability, shall identify Company and its officers, directors and employees as additional insureds and shall include a waiver of subrogation in favor of the additional insureds. The insurance coverages afforded under the policies required hereunder shall (i) be primary and non-contributing with respect to any insurance carried independently by the additional insureds to the extent of claims brought against Service Provider for its liability on the project and (ii)

indicate that as respects the insureds (whether named or otherwise), cross-liability and severability of interests shall exist with respect to Commercial General Liability. .

Section 14.3 Concurrently with the execution of this Agreement, Service Provider shall provide Company with the following insurance documents evidencing the insurance required pursuant to this **Article XIV**.

(a) A certificate of insurance evidencing the required coverage to Company;

(b) A schedule of underlying coverage on the excess/umbrella policy up to $ 2,000,000 ; and

(c) An endorsement adding Company as an additional insured on the primary and excess general liability policies except Professional Liability, Cyber Liability.

Section 14.4 Service Provider shall not commence Service hereunder until it has procured, and furnished Company with the documents required to be delivered under Section 14.3 and all insurance required under this Agreement is in full force and effect in accordance herewith.

Section 14.5 Notwithstanding anything to the contrary contained in this Agreement, Company shall neither have any obligation to insure against, nor be responsible for, any loss or damage to tools, materials or other property of any kind owned, rented or leased by Service Provider or any subcontractors, or any of their respective employees, consultants or agents.

Section 14.6 The required coverages, provisions, and limitations of this **Article XIV** shall not limit Service Provider's liability, and Company, at its discretion and upon notice to Service Provider, may increase the minimum limits of coverage for those insurance policies that Service Provider is required to maintain under this Agreement.

ARTICLE XV
NON-SOLICITATION

Section 15.1 Service Provider and Company agree that, except as may be otherwise set forth in this Article, or as otherwise mutually agreed upon between the Parties, neither Party will directly or indirectly solicit or hire any employee of the other Party (including employees of Service Provider's Affiliates pre-approved by Company under a Release executed by the Parties) who perform Services during the Term and for twelve (12) months following the termination or expiration of this Agreement or the relevant Individual Release, as applicable; **Section 15.2** The preceding prohibition shall not apply to (i) advertising of open positions, participating in job fairs and comparable activities, or other forms of soliciting candidates for employment or contract opportunities that are general in nature; (ii) responding to non-targeted, general camaigns, unsolicited inquiries about employment; or (iii) In the event of a termination by Company for cause, the Parties mutually agree and execute a waiver agreeing Article XV shall not apply to a Service

Provider Key Personnel identified in such waiver up to a maximum of 15% Key Personnel active in the engagement at the time of such termination, understanding Service Provider shall not unreasonably withhold its approval to any such waiver and, the event the Parties agree to such waiver, Company will pay Service Provider as follows:

(a) Between 61-120 days of such Service Provider Personnel's commencing Services to Company – 15% of Starting Salary;

(b) Between 121-180 days of such Service Provider Personnel's commencing Services to Company – 10% of Starting Salary

(c) After 180 days of such Service Provider Personnel's commencing Services to Company – No compensation due to Service Provider.

The above flat, lump sums represent Company's entire obligation to Service Provider for the solicitation and hire of any Service Provider Personnel solicited and hired pursuant to a waiver under this Section 15.2.

ARTICLE XVI
NON-EXCLUSIVITY; NON-COMPETE

The Service Provider retains the right to perform the same or similar type of services for third parties during the Term. Nothing in this Agreement shall be deemed to preclude Company from retaining the service of other persons or entities undertaking the same or similar services as those undertaken by Service Provider or from independently developing or acquiring services that are similar to, or competitive with, the services provided under this Agreement.

ARTICLE XVII
FORCE MAJEURE

Section 17.1 Neither Party shall be liable or responsible to the other Party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement (except for any obligations to make payments to the other Party hereunder), when and to the extent such failure or delay is caused by or results from acts beyond the affected Party's reasonable control, including, without limitation:

(a) acts of God;

(b) flood, fire or explosion;

(c) war, invasion, act of terrorism, riot or other civil unrest;

(d) actions, embargoes or blockades in effect on or after the Effective Date;

(e) national or regional emergency;

(f) shortage of adequate power or telecommunications or transportation facilities; or

(g) any other event that is beyond the reasonable control of such Party.

(each of the foregoing, a "**Force Majeure Event**"). A Party whose performance is affected by a Force Majeure Event shall give notice to the other Party, stating the period of time the occurrence is expected to continue and shall use diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

Notwithstanding anything to the contrary in the foregoing, and for the avoidance of doubt, the following shall not constitute Force Majeure Events:

(a) non-performance or delay in performance by a Party unless such non-performance or delay is caused directly by a Force Majeure Event;

(b) boycotts, strikes, lockouts, other industrial disturbances or unavailability of, or with respect to, laborers, Service Provider Personnel or Permitted Subcontractors, or collective bargaining agreements of Service Provider or Permitted Subcontractors resulting in a delay or stoppage of the Work;

(c) boycotts, strikes, lockouts, or other industrial disturbances with respect to Company employees, or collective bargaining agreement of Company resulting in a delay or stoppage of any work on the part of Company employees without regard to whether Company was performing in connection with this Agreement or not;

(d) the failure of Service Provider to engage appropriately qualified subcontractors or personnel or an adequate number of personnel for the performance of the relevant tasks; or

(e) economic hardship or changes in market conditions or any inability or failure to pay money, any inability to raise financing or any change in price.

Section 17.2 During the Force Majeure Event, the non-affected Party may similarly suspend its performance obligations until such time as the affected Party resumes performance.

Section 17.3 The non-affected Party may terminate this Agreement if such failure or delay continues for a period of ten (10) days or more and, if the non-affected Party is Company, receive a refund of any amounts paid to the Service Provider in advance for the affected Services. Unless this Agreement is terminated in accordance with this **Section 17.3**, the Term shall be automatically extended by a period not in excess of the period of suspension.

ARTICLE XVIII
MISCELLANEOUS

Section 18.1 The relationship between the Parties is that of independent contractors. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise, employment or fiduciary relationship between the Parties, and neither Party shall have authority to contract for or bind the other Party in any manner whatsoever. All Persons whom Service Provider employs will be deemed solely the employees of Service Provider and will not be considered employees of Company for any purposes.

Section 18.2 Neither Party shall issue or release any announcement, statement, press release or other publicity or marketing materials relating to this Agreement, or otherwise use the other Party's trademarks, service marks, trade names, logos, symbols or brand names, in each case, without the prior written consent of the other Party.

Section 18.3 All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by electronic Ccommunication (with receipt of confirmation of successful transmission) if sent during normal business hours of the recipient, and on the next business day if sent after normal business hours of the recipient or (d) on the third day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective Parties at the addresses indicated below (or at such other address for a Party as shall be specified in a notice given in accordance with this **Section 18.3**.

If to Service Provider:
Tata Consultancy Services Limited
101 Park Avenue, 26th Floor,
New York, NY 10178
Attention: Legal Department
Email:- us.legal@tcs.com

If to Company:
PPL Services Corporation
Two North Ninth Street
Allentown, PA 18101
Attention: Abhijit Bhatwadekar
Email: abhatwadekar@pplweb.com

Copy to:
PPL Office of General Counsel
Attn: Contracts Attorney
Two North Ninth Street, TW4
Allentown, PA 18101
Email: OGCContractsAttorney@pplweb.com

Section 18.4 For purposes of this Agreement, (a) the words "include," "includes" and "including" shall be deemed to be followed by the words "without limitation"; (b) the word "or" is not exclusive; and (c) the words "herein," "hereof," "hereby," "hereto" and "hereunder" refer to this Agreement as a whole (including each Release and Authorization). Unless the context otherwise requires, references: (x) to an agreement, instrument or other document means such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and (y) to a statute means such statute as amended from time to time and includes any successor legislation thereto and any regulations promulgated thereunder. This Agreement shall be construed without regard to any presumption or rule requiring construction or interpretation against the Party drafting an instrument or causing any instrument to be drafted. The Schedules, Exhibits and Statements of Work referred to herein shall be construed with, and as an integral part of, thse General Terms and Conditions, the applicable Releases and Authorization to the same extent as if they were set forth verbatim therein.

Section 18.5 This Agreement (including these General Terms and Conditions and the Releases executed under and Authorizations issued pursuant to these General Terms and Conditions), together with all Schedules, Exhibits and Statements of Work and any other documents incorporated therein by reference,

constitutes the sole and entire agreement of the Parties to this Agreement. All prior and contemporaneous understandings and agreements between the Parties on the matters contained in this Agreement are expressly merged into and superseded by this Agreement.

Section 18.6 Neither Party may assign, transfer or delegate any or all of its rights or obligations under this Agreement, without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed; *provided, that*, upon prior written notice to the other Party, either Party may assign the Agreement to an Affiliate of such Party or to a successor of all or substantially all of the assets of such Party through merger, reorganization, consolidation or acquisition. No assignment shall relieve the assigning Party of any of its obligations hereunder. Any attempted assignment, transfer or other conveyance in violation of the foregoing shall be null and void. This Agreement shall be binding upon and shall inure to the benefit of the Parties hereto and their respective successors and permitted assigns.

Section 18.7 It is understood and agreed that any delay, waiver, or omission by Company to exercise any right arising from any breach or default by Service Provider of any of the terms of this Agreement shall not be construed to be a waiver by Company of any subsequent breach or default by Service Provider.

Section 18.8 This Agreement is for the sole benefit of the Parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other Person any legal or equitable right, benefit or remedy of any nature whatsoever, under or by reason of this Agreement.

Section 18.9 The headings in this Agreement are for reference only and shall not affect the interpretation of this Agreement.

Section 18.10 This Agreement may only be amended, modified or supplemented by an agreement in writing signed by each Party hereto. No waiver by any Party of any of the provisions hereof shall be effective unless explicitly set forth in writing and signed by the Party so waiving. Except as otherwise set forth in this Agreement, no failure to exercise, or delay in exercising, any rights, remedy, power or privilege arising from this Agreement shall operate or be construed as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege.

Section 18.11 If any term or provision of this Agreement is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the Parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the Parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

Section 18.12 All matters arising under or relating to this Agreement will be governed by the laws of the Commonwealth of Pennsylvania, notwithstanding conflicts of law rules. Parties will bring any legal action or proceeding arising out of or relating to this Agreement in federal courts in the Eastern District of Pennsylvania or in the state courts in Lehigh County, Pennsylvania. Parties consents to the exclusive jurisdiction of such courts for the purpose of all legal actions and proceedings arising out of or relating to this Agreement. Each Party waives, to the fullest extent permitted by law, any objection that it may now or later have to the laying of venue as provided in this **Section 18.12** and any claim that any action or proceeding brought in any such court has been brought in an inconvenient forum. EACH PARTY, TO THE EXTENT PERMITTED BY LAW, KNOWINGLY, VOLUNTARILY, AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY IN ANY ACTION OR OTHER LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT. THIS

WAIVER APPLIES TO ANY ACTION OR LEGAL PROCEEDING, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE.

Section 18.13 Each Party acknowledges that a breach by a Party of **Article VIII** (Intellectual Property Rights; Ownership) or **Article IX** (Confidentiality) may cause the non-breaching Party irreparable damages, for which an award of damages would not be adequate compensation and agrees that, in the event of such breach or threatened breach, the non-breaching Party will be entitled to seek equitable relief, including a restraining order, injunctive relief, specific performance and any other relief that may be available from any court, in addition to any other remedy to which the non-breaching Party may be entitled at law or in equity. Such remedies shall not be deemed to be exclusive but shall be in addition to all other remedies available at law or in equity, subject to any express exclusions or limitations in this Agreement to the contrary.

Section 18.14 In the event that any action, suit, or other legal or administrative proceeding is instituted or commenced by either Party hereto against the other Party arising out of or related to this Agreement, the prevailing Party shall be entitled to recover its reasonable attorneys' fees and court costs from the non-prevailing Party.

Section 18.15 This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

[SIGNATURE PAGE FOLLOWS]

Redacted

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the Effective Date.

PPL SERVICES CORPORATION

By William Pettit (Mar 1, 2022 10:30 EST)

Name: William Pettit

Title: Director Supply Chain

Date: 03/01/2022

TATA CONSULTANCY SERVICES LIMITED

By sabyasachi chandra (Mar 2, 2022 06:53 EST)

Name: sabyasachi chandra

Title: Business Unit Head - Utilities Americas

Date: 03/02/2022

Business Use

Redacted

EXHIBIT A

FORM OF GENERAL RELEASE

Business Use

Redacted

EXHIBIT B

FORM OF INDIVIDUAL RELEASE

This individual release **("Individual Release")** is made and entered into as of _____, 20___ by and between PPL Electric Utilities Corporation/PPL Services Corporation **("Company")** and _____ **("Service Provider").**

WHEREAS, Company and Service Provider have executed that certain _____ (Contract No. [Insert]) dated as of _____, 20__ (the **"Agreement"**) pursuant to which Company and Service Provider agreed to certain provisions regarding Services to be performed by Service Provider;

WHEREAS, Company desires to engage Service Provider to perform the Services described in this Individual Release on the terms and conditions stated in the Agreement and this Individual Release;

NOW, THEREFORE, Company and Service Provider hereby agree as follows:

1. Contract. Capitalized terms used but not defined herein shall have the respective meanings given such terms in [SECTION/ARTICLE #] of the Agreement. This Individual Release shall be governed by the terms and conditions of the Agreement (including all current and future Change Orders and amendments thereto), as expressly modified or supplemented hereby, all of which are hereby incorporated herein. In the event of a conflict or inconsistency between the Individual Release and the Agreement, the terms and conditions set forth in the Agreement shall prevail.

2. Project. The project that is the subject of this Individual Release is as follows: _____ (the **"Project"**).

3. Services. The Services to be performed by Service Provider under this Individual Release from time to time as may be authorized from time to time by Company in its sole discretion pursuant hereto is described in the Statement of Work set forth in Exhibit 1 to this Individual Release.

4. Authorization of Services. Company may from time to time in its sole discretion authorize Service Provider in writing to perform Services under this Individual Release within the Statement of Work as so authorized, and Service Provider agrees to perform such Services in accordance with each such Authorization and to be bound by each such Authorization. Company and Service Provider agree that any Services authorized by Company within the Statement of Work shall, unless otherwise expressly agreed to in writing by Company and Service Provider, be deemed to constitute Services authorized pursuant to this Individual Release.

5. Invoices. Invoices shall be issued to Company pursuant to [SECTION/ARTICLE #] of the Agreement.

6. Services Commencement and Schedule. The schedule and commencement date for any Services under this Individual Release shall be _____ **(the "Effective Date")** or such other date as instructed by Company.

7. Contract in Full Force and Effect. As expressly modified or supplemented by this Individual Release, the General Terms and Conditions remain in full force and effect.

Counterparts. This Individual Release may be executed in one or more counterparts (or by combining facsimile and/or original signatures into one or more counterparts), each of which shall be an original, and all of which, when taken together, shall constitute but one and the same Individual Release. Execution and delivery of this Individual Release by exchange of facsimile or other electronically transmitted counterparts bearing the signature of a Party shall be equally as effective as delivery of a manually executed counterpart by such Party.[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the parties hereto have caused this Individual Release to be duly executed as of the day and year first above written by their duly authorized representatives, intending to be legally bound thereby.

COMPANY:

[COMPANY AFFILIATE/PPL SERVICES CORPORATION

[By: PPL Services Corporation, its agent]

By: _____

Name: _____

Title: _____

Date: _____

SERVICE PROVIDER:

_____

By: _____

Name: _____

Title: _____

Date: _____

Exhibit 1 – Statement of Work

Redacted

EXHIBIT 1

STATEMENT OF WORK

This Statement of Work is made and entered into as of _____, 20___ by and between [PPL Legal Entity Name] **("Company") and** [Service Provider Legal Entity Name] **("Service Provider")** pursuant to Agreement specified below.

WHEREAS, Company and Service Provider executed that certain [Agreement Name] (Contract No. [Insert]) dated as of _____, 20___ and Individual Release dated _____**(the "Agreement")** pursuant to which Company and Service Provider agreed to certain provisions regarding Services be performed by Service Provider;

WHEREAS, Company desires to engage Service Provider to perform the Services described in this Statement of Work on the terms and conditions stated in the Agreement;

NOW, THEREFORE, Company and Service Provider hereby agree as follows:

1. Agreement. Capitalized terms used but not defined herein shall have the respective meanings given such terms in the Agreement. This Statement of Work shall be governed by the terms and conditions of Sections 1 through ____, inclusive, of the Agreement (including all amendments thereto, as expressly modified or supplemented hereby, all of which are hereby incorporated herein.

2. Services. The Services to be performed by Service Provider under this Statement of Work are as follows:

(a) [Insert Services to be performed]

3. Service Provider Contract Manager, Key Personnel and Service Provider's Affiliates

(a) The Service Provider Contract Manager shall be:
Name:
Address:
Telephone number:
Email address:

(b) The Key Personnel shall be:
Title/position:
Jurisdiction:

(c) Service Provider's Affiliates Identified in Exhibit F:
Name:
Address:
Telephone number:
Email address:

4. Schedule. The schedule for the Services to be performed by Service Provider under this Statement of Work are as follows:

Line Item	Task	Completion Date
1		
2		

4. Deliverables. The Deliverables required under this Statement of Work, along with a description of the Deliverables and completion date, are described below:

Line Item	Task	Completion Date
1		

Business Use

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2		

5. Milestones.

Task	Due Date

6. Pricing. All costs listed below are based on the scope and assumptions included in this Statement of Work.

Item	Price [per unit/[OTHER]]	[Cost Structure]
Total:		

7. Term. This Statement of Work will remain in effect for a period of _____months/years, unless earlier terminated in accordance with the Agreement.

8. Payment Terms. Payment Terms shall be as agreed in the Agreement.

9. [Additional Terms.]

[SIGNATURE PAGE FOLLOWS]

Business Use

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IN WITNESS WHEREOF, the Parties hereto have executed this Statement of Work as of the date first above written.

COMPANY:

[PPL LEGAL ENTITY NAME]

By: _____

Name: _____

Title: _____

Date: _____

SERVICE PROVIDER:

[Service Provider Legal Entity Name]

By: _____

Name: _____

Title: _____

Date: _____

EXHIBIT C

REQUIRED INSURANCE COVERAGES

The Commercial General Liability coverage required of Service Provider and each subcontractor, as applicable, shall be written on an occurrence basis. Deductibles of applicable liability insurance policies shall be at levels that are reasonable and customary in the applicable services industry, and Company reserves the right to request deductible information from Service Provider and any subcontractors as needed.

Prior to performing any Services and thereafter promptly following each request by Company at any time from the Effective Date through the expiration of the Agreement, Service Provider shall furnish to Company a certificate of insurance, the declarations page and all endorsements acceptable to Company evidencing the Required Coverages. If any or all of the insurance policies required hereunder would otherwise expire during the Term of this Agreement, Service Provider shall renew, or cause the applicable subcontractor to renew, as applicable, such insurance and provide renewal certificates of insurance to Company not later than ten (10) days prior to the applicable policy renewal date.

Service Provider shall provide, and shall cause each subcontractor to provide, immediate written notice to Company of any cancellation or termination of said insurance, and each of the required policies shall contain language that coverage is primary in all instances regardless of what, if any, like coverages are carried by Company. Service Provider's liability under this Agreement shall not be limited to the Required Coverages.

MINIMUM INSURANCE

	TYPE OF COVERAGE	COVERAGE REQUIRED
1.	Workers Compensation	Statutory
	Employer's Liability	$1,000,000
2.	Commercial General Liability	
	Bodily Injury and	$2,000,000
	Property Damage	General Aggregate

Including, but not limited to, the following with the same above limit of liability for Bodily Injury and Property Damage:

(a) Contractual Liability

(b) Products and Completed Operations

(c) Broad Form Property Damage

The Commercial General Liability policy shall contain either by inclusion in the form or by separate endorsement the following coverages:

- Waiver of subrogation in favor of the additional insureds;
- Service Provider shall ensure that Company is included as an additional insured on the primary and excess/umbrella general liability policies.
- Service Provider shall ensure that the "other insurance" clause in its policies shall be modified so that Service Provider's policy is primary and non-contributory to any of Company's valid and collectible policies. It is further understood and agreed that any policies maintained by Company or in Company's name or on its own behalf, shall be excess only over any valid and collectible insurance maintained by Service Provider on its own behalf and on behalf of Company.

3. Comprehensive Vehicle Liability

Coverage shall include all owned, leased, hired or borrowed vehicles or automotive equipment when used in connection with performance of this Agreement.

Bodily Injury and	$1,000,000
Property Damage	Combined Single Limit

4. Professional Liability $5,000,000 per claim and in the aggregate

For any Services that include any engineering, design or professional services for which professional liability insurance is available, Service Provider shall obtain and maintain in full force and effect Professional Liability coverage on a claims made policy form.

5. Umbrella / Excess Liability $20,000,000 per Occurrence and General Aggregate

An umbrella or excess liability policy written on an occurrence form to apply to all coverages outlined in Exhibit D, items 1, 2, and 3.

6. Cyber Liability $ 10,000,000 per Occurrence and in the Aggregate

If applicable, coverage shall in the minimum include (i) liability arising from theft, dissemination, and/ or use of confidential information (a defined term including, but not limited to, bank and credit card account information or personal information, such as name, address, social security numbers, etc.) stored or transmitted in electronic form; (ii) network security liability arising from the unauthorized access to, use of, or tampering with computer systems, including hacker attacks or inability of an authorized third party to gain access to your services, including denial of

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service, unless caused by a mechanical or electrical failure; and (iii) liability arising from the introduction of a computer virus into, or otherwise causing damage to, a computer system, network, or similar computer related property and the data, software, and programs thereon.

Business Use

EXHIBIT D

NERC CIP REQUIREMENTS

1. Certain Defined Terms and Interpretative Guidelines. Capitalized terms used in this Exhibit D that are not defined in the Agreement or this Exhibit D shall have the meaning assigned to them in the North American Electric Reliability Corporation ("**NERC**") Glossary of Terms Used in Reliability Standards, as amended, supplemented or modified from time to time (the "**NERC Glossary**") or information associated therewith. All references in this Exhibit D to applicable laws, regulations or standards include any amendments, updated versions, supplements or modifications thereto that may be effective from time to time.

2. Personnel Risk Assessments.

(a) Service Provider agrees that each of its employees, subcontractors or other persons that perform any portion of the Services with respect to (i) Company's BES Assets and BES Cyber Systems, including associated BES Cyber Assets, (ii) Company's Cyber Assets used in access control and monitoring of Company's Electronic Security Perimeter(s), (iii) Company's Cyber Assets that authorize or log access to Company's Physical Security Perimeter(s) or (iv) any information relating to Company's BES Cyber Systems or BES Cyber Assets (collectively, "**NERC CIP Assets and Information**") (each, a "**NERC CIP Asset Worker**") shall be subject to the provisions of this Exhibit D, including, without limitation, this Section 2.

(b) Service Provider shall permit, and Service Provider shall cause each NERC CIP Asset Worker to permit, Company to conduct, or cause to be conducted, a Personnel Risk Assessment ("**PRA**") in accordance with the NERC Critical Infrastructure Protection ("**CIP**") reliability standard CIP-004 R3 and any similar standards that have been promulgated by a NERC-designated Regional Entity for NERC CIP Asset Workers. Each such PRA shall be conducted in accordance with Company's Personnel Risk Assessment Program. NERC CIP Asset Workers shall be deemed Service Provider Parties pursuant to the Agreement. Company shall inform Service Provider when a PRA is necessary but shall not be obligated to identify any of Company's NERC CIP Assets and Information.

(c) Service Provider understands and agrees each NERC CIP Asset Worker will be ineligible to perform any portion of the Services involving Company's NERC CIP Assets and Information until Company has provided Service Provider with notice that such NERC CIP Asset Worker has been deemed eligible for such access in accordance with this Section 2(c). Prior to any NERC CIP Asset Worker's access to Company's NERC CIP Assets and Information, Company shall complete or have completed a PRA with respect to each such NERC CIP Asset Worker. If any NERC CIP Asset Worker is deemed ineligible for access as a result of any such PRA, (i) neither Company nor Service Provider shall grant such NERC CIP Asset Worker any access to Company's NERC CIP Assets and Information and (ii) such NERC CIP Asset Worker shall be prohibited from performing any portion of the Services. Service Provider understands and agrees that (A) it is solely and exclusively Service Provider's obligation to provide sufficient personnel who are eligible to perform the Services in accordance with the terms hereof, and (B) Service Provider shall bear the responsibility for any Services that is not completed fully and on a timely basis including, without limitation, any Services that is not completed fully and on a timely basis as a result of Service Provider's failure to provide sufficient personnel who are eligible to perform the Services in accordance with the terms hereof.

(d) Service Provider shall continually evaluate each NERC CIP Asset Worker's reliability trustworthiness and qualifications to perform Services related to Company's NERC CIP Assets and Information and immediately inform Company (per the contact information in Section 4 and the Company Supervisor identified in the Statement of Work) if Service Provider believes such access should be revoked based upon such evaluation; for purposes of this Section 2(d) "**immediately**" means within eight (8) hours from when Service Provider believes such access should be revoked based upon the aforesaid evaluation. Only Company will conduct an updated PRA with respect to each NERC CIP Asset Worker at least once every three (3) years after the initial PRA, and more often (i) if Service Provider or Company discovers or has reason to suspect the existence of any information that would warrant such an updated PRA, (ii) at the reasonable discretion of Company or (iii) as required by the NERC CIP reliability standards or any similar standards promulgated by a NERC-designated Regional Entity. In each of the foregoing circumstances, Service Provider shall permit, and shall cause each NERC CIP Asset Worker to permit, Company to complete, or cause to be completed, such an updated PRA.

3. Worker Training.

(a) Service Provider shall require that each NERC CIP Asset Worker (i) be trained in accordance with Company's NERC Cyber Security training program(s) and such additional training programs required by Company prior to performing, or during the performance of, any portion of the Services, and (ii) receive updated training in accordance with such programs on at least an annual basis, and more often at the request of Company or as required by the NERC CIP reliability standards or any similar standards promulgated by any NERC-designated Regional Entity. Service Provider agrees to comply with reasonable Company requests related to the delivery and monitoring of training and information dissemination to NERC CIP Asset Workers, as required by Company from time to time.

(b) Service Provider understands and agrees each NERC CIP Asset Worker will be ineligible to perform any portion of the Services involving Company's NERC CIP Assets and Information and the NERC CIP Asset Worker will not have access to Company's NERC CIP Assets until the NERC CIP Asset Worker has completed the training required by subsection (a) herein. Service Provider understands and agrees that (i) it is solely and exclusively Service Provider's obligation to provide sufficient personnel who have taken the necessary training to perform the Services in accordance with the terms hereof, and (ii) Service Provider shall bear the responsibility for any Services that is not completed fully and on a timely basis including, without limitation, any Services that is not completed fully and on a timely basis as a result of Service Provider's failure to provide sufficient personnel with the necessary training to perform the Services in accordance with the terms hereof.

4. Obligations Regarding Terminated Workers or Reassignment. In the event that (a) the employment relationship between Service Provider and any NERC CIP Asset Worker of Service Provider ends for any reason, (b) any NERC CIP Asset Worker is reassigned or transferred to a position that results in a change in the need for authorized electronic access to individual accounts and/or authorized unescorted physical access, or (c) Service Provider for any reason determines that any NERC CIP Asset Worker will no longer perform any portion of the Services, Service Provider shall, immediately at the time of such termination, transfer, reassignment or determination, notify Company by live communication (voice mail is not acceptable) with Company's NERC compliance representative for this Agreement:

Redacted

For PPL Electric Utilities:
1. Company Supervisor – See Contact Information identified in the Statement of Work
2. Manager – NERC & FERC Compliance
Phone: 484-633-0996
Email: EUNERCCOMP@pplweb.com
Alternate Contact for PPL Electric Utilities:
610-774-7777 (Help Center line)

For purposes of this Section 4, "**immediately**" means within eight (8) hours from when Service Provider determines that any NERC CIP Asset Worker will no longer perform any portion of the Services. Company can change the foregoing recipients of such notice upon delivering written notice thereof to Service Provider. In each case, Service Provider shall (x) instruct each such Company contact to take appropriate actions to remove such NERC CIP Asset Worker's access to Company's NERC CIP Assets and Information, and (y) inform each such Company contact of the effective time of any of the events described in clauses (a), (b), and (c) of this Section 4. Service Provider shall immediately collect from such NERC CIP Asset Worker any documents, security tokens, work product, or other Company property and return all such items to a Company representative. Service Provider represents and warrants that there are no electronic or physical Service Provider-maintained designated storage locations for BES Cyber System Information.

5. Compliance with Applicable Policies and Procedures. Service Provider shall, and shall cause each NERC CIP Asset worker to, review and comply with all applicable NERC Standards, and all Company policies and procedures (in their current form, and as they may be modified from time to time) that Company deems necessary for Service Provider to follow, and that Company identifies and makes available to Service Provider sufficiently in advance of the Services to which the policy or procedure applies so as to allow Service Provider and the NERC CIP Asset Worker to review and understand the requirements. Service Provider will ensure that each NERC CIP Asset Worker understands and is familiar with the same.

6. Confidentiality. Notwithstanding any other applicable confidentiality provisions in the Agreement, the following provisions of this Section 6 shall apply with respect to Company's NERC CIP Assets and Information, including, without limitation, confidential information relating to the reliability or operability of the BES and information generated or otherwise developed by Service Provider in connection with its performance of the Services that constitutes or is otherwise related to Company's NERC CIP Assets and Information (collectively, "**BES Cyber Security Information**" or "**BCSI**", previously labeled as "Confidential CIP Asset Information" or "CCAI"). Service Provider shall not disclose any BES Cyber Security Information to any person or entity, except that Service Provider may disclose BCSI to a NERC CIP Asset Worker if Service Provider and such NERC CIP Asset Worker have complied with all conditions set forth in this Exhibit D. Service Provider and any of its NERC CIP Asset Workers in possession of BCSI, in physical or electronic form, must agree to all of Company's policies relating to such BCSI that have been provided to Service Provider. Service Provider will provide notification by contacting Company's NERC Compliance representative for this Agreement immediately upon becoming aware that it has disclosed any BCSI in violation of this Section 6. Service Provider shall ensure that each of its NERC CIP Asset Workers understands and complies with the requirements to protect BCSI from inappropriate disclosure as set forth in this Section 6. Notwithstanding anything to the contrary in the Agreement, with respect to any BCSI, the restrictions set forth in this Section 6 shall remain in effect indefinitely from the date such BCSI was first disclosed to or obtained or discovered by Service Provider.

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7. Audit. In addition to the audit rights provided to Company in the Agreement, Service Provider shall, upon reasonable advance notice from Company, provide Company and its authorized representatives copies of requested documentation or access, during normal business hours and without unreasonably interfering with Service Provider's conduct of its business, to all records and other materials reasonably necessary to enable Company to evaluate Service Provider's compliance with its obligations under this Exhibit D. In the event that Company determines, through a review or audit conducted by Company, that Service Provider's compliance with its obligations under this Exhibit D is deficient, (a) Company may immediately suspend the access of any NERC CIP Asset Workers to Company's NERC CIP Assets and Information, and (b) Company may provide written notice of such deficiency determination to Service Provider (a "**Deficiency Notice**"). In the event that Company delivers a Deficiency Notice to Service Provider in accordance with the immediately preceding sentence and Service Provider fails to cure the deficiency to Company's satisfaction within ten (10) days after its receipt of such a Deficiency Notice, Company shall have the right, but not the obligation, to terminate the Agreement. Notwithstanding anything herein to the contrary, any audit under this Agreement shall be subject to the following limitations: Customer or any auditor conducting any such audit shall at all times comply with any and all reasonable security and confidentiality guidelines of Service Provider with respect to the audit.

8. Subcontractors. Service Provider shall be responsible for ensuring any duly approved Subcontractor's compliance with the terms and conditions of this Exhibit D, including, without limitation, making any such Subcontractor available to Company for Company to perform a PRA on such subcontractor prior to such Subcontractor's performance of any portion of the Services.

9. Precedence of Terms. In the event of any conflict between the terms of this Exhibit D and the other terms of the Agreement, with respect to compliance with NERC Critical Infrastructure Standards, the terms of this Exhibit D shall govern.

10. Reserved.

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EXHIBIT E

INFORMATION AND SYSTEM SECURITY AGREEMENT

Parties agree that Service Provider Personnel, Service Provider Affiliates identified in Exhibit F, or Permitted Subcontractors may be required to work in the Secure Borderless Work Space ("SBWS") model where Service Provider personnel will be working away from the approved Service Provider facilities (for e.g. Home) but within the geographical/jurisdictional locations approved in writing by Company with Service Provider approved devices using a secured access to work environment including Company network and systems. Service Provider shall use information technology industry standards within the United States and reasonable best efforts to minimize any disruptions in the provision of the Services caused by the SBWS model. Company has determined that certain Services Service Provider will provide to Company and/or one or more Affiliates of Company under the Agreement involves access to, receipt, and/or handling of, or hosting or storing of Company's Information (as defined below) external to Company's networks, making the terms and conditions of this Information and System Security Agreement set forth in this Exhibit E to the Agreement necessary and appropriate under one or more of Company's policies. Accordingly, Company and Service Provider agree that the following provisions shall be additional terms and conditions of the Agreement. All capitalized terms not otherwise defined in this Exhibit E shall have the meaning set forth in the Agreement. This Exhibit E shall be governed by the terms and conditions of the Agreement and any amendment thereto, as expressly modified or supplemented hereby, all of which are hereby incorporated into this Exhibit E.

1. Information Defined and Ownership of Information. For the purposes of this Exhibit E, "**Information**" means all non-public information, including Company's Confidential Information (as defined in the Agreement), Personal Information (as defined below), Hosted Information (as defined below), information concerning Company and its business, including the products and services provided under the Agreement, and confidential or proprietary information of any other person or entity, in whether tangible or intangible and in whatever form provided, electronic or digital form or included on any paper/physical records that is either (a) provided by Company[1] to Service Provider or (b) collected, received and/or processed by Service Provider in the process of providing the Services to Company or performing under the Agreement; in either event, which information is stored, hosted, retained, received, processed, and/or transmitted by Service Provider (other than Service Provider Confidential Information). For the purposes of this Exhibit E, Information stored, hosted, retained, received, processed, and/or transmitted by Service Provider (other than Service Provider Confidential Information) shall remain the property of Company. To the extent performance of the Services for Company requires Service Provider to have license rights to use Information and such rights are not granted in the Agreement or another separate agreement between Service Provider and Company, Company hereby grant such license rights to Service Provider expressly in writing hereunder. Except as Company expressly granted such a license in writing hereunder, Service Provider shall have no license or other rights with respect to Information. Under no circumstances shall Service Provider obtain any ownership or other rights, title, or interest in Information.

2. Restrictions on Access, Usage, and Disclosure. Service Provider may not use Information for purposes other than performing the Services, and Service Provider must ensure that its

[1] As used in the remainder of this Exhibit, "Company" refers to Company and/or its Affiliates.

approved subcontractors are restricted from any use of Information other than for purposes of performing the Services. All access to Information by Service Provider's or any approved subcontractor's personnel shall be on a need-to-know basis. Except as otherwise expressly permitted under the Agreement, Service Provider and its subcontractors cannot disclose Information other than to the minimum extent required by law or a governmental authority having jurisdiction over Service Provider or its approved subcontractor, as applicable. In the event of such required disclosure, Service Provider must notify Company in advance (if legally permissible to do so, as determined by legal counsel for Service Provider) of any such required disclosure and must reasonably cooperate with any decision by Company to seek to condition, minimize the extent of, or oppose such disclosure.

3. Audit Trail and Litigation Holds. Service Provider shall log all access to Information on Service Provider's systems or networks (including the systems or networks of any approved subcontractor). Such logs shall be maintained for each access for a minimum of one (1) year following such access. During such one-year period, Service Provider shall maintain such logs such that they can be promptly retrieved at the request of Company and provided to Company as raw Information logs in an Excel data file or text file. Service Provider shall provide administrative functionality such that Company may deliver notices to Service Provider for the purposes of issuing and maintaining litigation holds with the effect of (a) preventing deletion of some or all Information on Service Provider's systems or networks for the duration of any such litigation hold (including the suspension of automated processes as necessary to prevent such deletion), or (b) causing Service Provider to deliver such Information to Company for preservation. In the event of termination of the Agreement or other contractual arrangement under which Service Provider provides the Services to Company at a time when such a litigation hold is in effect, Service Provider shall return to Company all Information subject to such hold(s) (including all associated metadata) without alteration.

4. Separation of Information. Service Provider shall maintain Information such that other customers and clients of Service Provider and other third parties do not have access to such Information. If Service Provider is utilizing a shared hosting model or shared storage with respect to Information, such Information should be segregated physically rather than logically.

5. Subcontractors. Service Provider shall not provide Information or access rights to Information to any subcontractor or other third party without the express, advance written consent of Company (including as may be provided in the Agreement) (each such subcontractor or third party as to which Company so consents, an "approved subcontractor"). Without limiting Section 15 below, before Service Provider discloses or otherwise provides access to Information to any approved subcontractor, Service Provider shall require such subcontractor to comply with the terms and conditions of this Exhibit E. Moreover, Service Provider shall be responsible and liable to Company for any acts or omissions of any approved subcontractor under this Exhibit E the same as if such acts or omissions were those of Service Provider.

6. Monitoring of Usage (for Hosted Information). **"Hosted Information"** is Information received, held, stored or retained by Service Provider in connection with the Services or for processing and to be accessed for use by Company, its customers, and/or its employees, contractors or subcontractors. If Service Provider stores, hosts, saves or receives any Information for use by Company, its customers or its employees, Service Provider shall not analyze such Information or monitor Company's or Company's users' Information system

usage for any purpose other than providing Services to Company. Service Provider may not record or calculate usage statistics of such users of Information systems unless such statistics are aggregated and maintained only in such a manner that neither Company nor Company's Information system users can be identified in any way. Information system usage data pertaining to Company is owned by Company and is Confidential Information of Company, provided that Service Provider may collect and use aggregated usage information on a confidential basis as reasonably needed to support or improve the provision of the Services to Company.

7. Security Program. Service Provider represents and warrants that the Services and Service Provider's information security program includes reasonable and appropriate administrative, technical, and physical safeguards that are risk-based, appropriate to the nature of Information being secured, and meet or exceed generally accepted best practices (i.e ISO 27001:2013) and are designed, implemented, and maintained, and periodically reviewed and updated, to appropriately safeguard Information against intrusion, theft, ransomware, malicious codes or viruses, destruction, loss, alteration, or unauthorized access, and/or interference by third parties. Service Provider shall implement and maintain a comprehensive written data and information security policy and appropriate procedures, and Service Provider's data security policies, practices and procedures shall (a) comply with all Applicable Privacy and Data Security Laws; (b) protect against any anticipated or actual threats or hazards to the confidentiality, availability, or integrity of Information, and from the loss of Information, including Personal Information; and (c) include training and security awareness programs for the personnel of Service Provider and any approved subcontractors who have access to Information. Company reserves the right to review, upon request to Service Provider, Service Provider's policies, procedures and practices used to maintain the privacy, security and confidentiality of Information. Without limitation of the above, Service Provider shall: (i) notify Company (as provided for in Section 9) of known security vulnerabilities or suspected vulnerabilities related to the Services or other products, materials or services provided to Company; (ii) proactively monitor vulnerabilities and rectify any such vulnerabilities that concern the Services or Service Provider's systems or networks (including any systems or networks of approved subcontractors that process or store any Information); these vulnerabilities shall be evaluated and patched in a timing commensurate with the risk and mitigation of that risk; (iii) upon request, vendor will provide report depicting results from periodic (at least annual) internal penetration testing for the dedicated Infrastructure used by Service Provider for providing Services to Company. This sharing may be via a virtual meeting (iv) prohibit Service Provider's and any approved subcontractor's personnel from transporting or transmitting Information in any form (paper or electronic) and on any media to their homes, personal computers, personal e-mail accounts, personal devices or personal media; however, Working remotely can be accommodated as long as work is performed on Service Provider issued hardware, software, and devices with appropriate physical/electronic safeguards implemented with communication to Service Provider's corporate systems or networks via a secure communication channel; all except as may otherwise be expressly permitted by Company in advance in writing; (v) change default security settings (such as default passwords) and promptly install all security updates and patches made available by the vendors of any of the third party software or other products used in connection with the collection, processing, storage or distribution of Information; (vi) employ adequate authentication protocols for online account access to prevent unauthorized users from accessing accounts with access to Information; (vii) refrain from attempting to re-identify personal information that has been provided to Service Provider in a de-identified form or that Service Provider is only permitted to use in a de-identified form; (viii) adopt and utilize up-to-date and fully supported technologies for the safe, secure and accurate collection,

processing, storage, and distribution of Information; (ix) utilize open-source software only with all applicable security updates, in compliance with the applicable license, and in a manner that does not jeopardize the security of any Information or systems or networks that process or store Information; and (x) absent Company's advance written approval, refrain from reassigning to a third party an internet protocol (IP) address previously assigned to Company for use in connection with Service Provider's performance of the Services. For purposes of this Exhibit E, "Applicable Privacy and Data Security Laws" shall mean: (i) all privacy, security, data protection, direct marketing, consumer protection and workplace privacy laws, rules and regulations of any applicable jurisdiction (including, without limitation, the U.S. and each state of the U.S.), and all then-current industry standards, guidelines issued by any Federal, State or local governmental authorities with respect to privacy, security, data protection, direct marketing, consumer protection and workplace privacy, or Company provided data security, cyber security and proviacy policies, including the collection, processing, storage, protection and disclosure of Personal Information; (ii) the applicable data security and privacy policies of Service Provider; and (iii) the applicable data security and privacy policies of Company that are either published on Company's web site(s) or otherwise provided by Company to Service Provider).

8. User Authentication. With respect to access to Hosted Information, Service Provider shall provide the ability for Company to utilize strong credentials when authenticating into the service. The authentication system must meet the following minimum requirements: (a) be a minimum of eight (8) characters in length; (b) include three of the following four types of characters: (i) upper-case letters; (ii) lower-case letters; (iii) numbers (0-9); (iv) special characters (e.g. #,*,&, etc.); (c) expire after a given period of time based on the risk to Information protected; as a general rule, ninety (90) days should be the enforceable maximum; (d) any default passwords that come with the service will be changed immediately after the initial setup of the service; (e) not allow reuse of a password until at least three (3) other passwords have been used; and (f) all administrative and remote access to the service requires multi factor authentication.

   Service Provider shall employ equivalently strong authentication requirements in connection with all access by Service Provider's users (including the users of any approved subcontractor) to any Information or Company systems, regardless of whether such access is performed remotely or from any Service Provider system.

   With respect to access to all other Information and systems or networks related to products and/or services provided to Company, Service Provider shall use multi-factor authentication and Service Provider shall utilize best security practices for strong credentials and password complexity (including length and timing of forced updates) when authenticating access to Information and systems related to product and services provided to Company.

9. Security Incident Response. In the event that Service Provider learns or has reason to believe that there has been unauthorized access to or use or impairment of, or any other security breach relating to or affecting, Information, including Personal Information in Service Provider's (including any approved subcontractor's) possession, custody, or control, or that any person who has had access to such Information has violated or intends to violate the terms of the Agreement or this Exhibit E (any of the foregoing, a "**Security Incident**"), Service Provider shall notify Company of such event promptly, but no later than [redacted] following Service Provider's discovery of any Security Incident. In addition, notification shall be no later than [redacted] for suspected ransomware and other similar intrusions where timing is critical to stopping proliferation and propagation and

Redacted

Service Provider has any access to Company's network or is Hosting Information. Notice of the Security Incident (or any other matter concerning this Exhibit E) shall be sent to:

Company IT Security via:
Email: [redacted]
Telephone: [redacted]

Notice of the Security Incident shall include details concerning: (a) date and time of Security Incident; (b) type of Security Incident (i.e., data breach, malware, ransomware, etc.); (c) extent of the Security Incident and its known impact to Company; (d) primary business contact person (name, email, and phone) for Service Provider; (e) primary IT cyber security contact person for Service Provider (name, email and phone); (f) immediate, intermediate, and long-term mitigations known at the time of notification; and (g) exposure areas and risks to Company. Service Provider shall immediately take measures as appropriate to preserve evidence (including, as applicable, images of drives, as well as inbound and outbound network logs, application logs, internet traffic logs, firewall logs, router information or logs from any packet capture, network monitoring, intrusion detection or security event and incident management systems for any parts of the network accessible from the potentially affected equipment). All steps taken in responding to a Security Incident shall be properly documented and chain of custody shall be maintained for any images captured. If Service Provider does not have the in-house capability to perform the actions required in a professional and competent manner, Service Provider shall retain an outside forensic expert to do so at Service Provider's own expense. Subject to section 12.4 (Data Liability Cap) of the Agreement, in the event any such Security Incident is caused by Service Provider, in whole or in part then Service Provider shall be responsible for the actual and reasonable costs (whether incurred by Service Provider or Company) of responding to and mitigating any Security Incident, including, but not limited to, actual and reasonable costs associated with investigation and identification of the nature and scope of such Security Incident (including reasonable attorneys' fees) and, as directed and approved by Company in its discretion subject to applicable law: notification of any individuals whose privacy is potentially impacted; notification of and responding to inquiries from regulators as necessary or appropriate; and providing identity protection and credit-monitoring or similar services to any individuals whose privacy is potentially impacted. Service Provider shall cooperate with Company in investigating and responding to the foregoing, notifying customers or other affected individuals, and seeking injunctive or other relief from and against any person or persons who have violated or attempted to violate the confidentiality or security of Information. In event that a Security Incident involves any payment cardholder data Service Provider shall also pay or reimburse Company for associated costs, fees, and fines imposed by credit card associations, merchant banks or financial account institutions, and costs passed on by individual card companies, banks and other financial institutions, such as the costs of issuing replacement cards, fraud liability, chargebacks, compromise fees, and other remediation costs.

10. Information Protection. Service Provider shall take all necessary and reasonable steps to protect Information against any unauthorized access or improper use during both storage (while "at rest") and transmission while in Service Provider's (including its approved subcontractors') care, custody, or control. Such steps must include protections for both physical and electronic data. To the extent that the handling of any Information is governed by the Health Insurance Portability and Accountability Act ("**HIPAA**") and its regulations, the parties shall enter to and abide by a separate Business Associate Agreement in compliance with HIPAA before Service Provider accesses any such Information. To the extent that any

Information constitutes payment cardholder data, Service Provider shall, in addition to complying with this Exhibit E, abide with all applicable provisions of the Payment Card Industry Data Security Standard in connection with handling such Information, and the parties shall execute a separate addendum with additional terms concerning such Information. Protection of Information in storage (including storage on any portable device, including laptops, or removable storage media, including USB drives and backup tapes) shall include encryption of Information using an encryption product/technology that meets or exceeds industry best practices for encryption while in transit or at rest. Protection of Information during transmission shall include the encryption of Information sent over a data network connection, including the Internet or Service Provider's internal network connections as well as any connections to third parties, using a secure, encrypted communications method that meets or exceeds industry best practices for encryption.

11. Personal Information. In performing obligations hereunder, Service Provider may obtain or have access to, or otherwise store, process or transmit, certain personal information of Company's employees, other personnel, agents, officers, directors, contractors, customers, potential and prospective customers, dealers, suppliers, and/or other persons, which information may include without limitation name, address, other contact information, financial account information, health or medical information, insurance information, social security number, tax ID number, driver's license or non-driver identification card number, passport information, government ID number, tribal ID number, mother's maiden name, date of birth, password, PIN, access code, routing code, security code, biometrics, DNA profile information, electronic signature or serial number, employee ID number, payroll records, salary information or other human resources records and information, "protected health information" as defined by the Health Insurance Portability and Accountability Act, "non-public information" as defined by the Gramm-Leach-Bliley Act, consumer report information, FICO scores, alien registration number or naturalization number, personal identification number or code, electricity system equipment and usage information, other account information and/or account activity information, other information or data that can be used for identity theft (including that which is not personally identifiable) and other sensitive information regarding such persons (collectively, "**Personal Information**"). Notwithstanding anything to the contrary, as between Company and Service Provider, all Personal Information is and shall remain the sole and exclusive property of Company, and shall be deemed Company's Confidential Information, perpetually and regardless of whether it is marked as such and regardless of whether it falls into an exception to the confidentiality provision set forth or cross-referenced in the Agreement. Service Provider acknowledges that it is responsible for the security of Personal Information that it receives or accesses in performing the Services, and Service Provider shall at all times maintain appropriate information-security measures with respect to such Personal Information in a manner consistent with Applicable Privacy and Data Security Laws. Without limiting the foregoing, Service Provider shall comply with all applicable laws pertaining to privacy, data security, data protection, consumer protection, email and other digital marketing, telecommunication (including text message) marketing, and workplace privacy in connection with Service Provider's handling of Personal Information.

12. Return or Disposal. As soon as possible after any Information (or a portion thereof) is no longer needed by Service Provider to fulfill its obligations hereunder, and in any event at any time upon Company's request, including upon termination of the Agreement or other contractual arrangement under which Service Provider provides the Services to Company, as applicable, for any reason: (a) such Information in Service Provider's possession or control (including the possession or control of any approved subcontractors) shall be returned in an

agreed-upon format (or in the absence of an agreement, in the format in which received) to Company by Service Provider, or at Company's request destroyed (including without limitation, with respect to any hard copy, cross-shredded); (b) to the extent requested by Company, all electronic copies of Information in Service Provider's possession or control shall be deleted, including wherever applicable through the use of secure erase over-writing software on storage devices containing such Information as detailed in the National Institute of Standards and Technology ("**NIST**") Guidelines for Media Sanitization (NIST Special Publication 800-88, in a manner that makes Information non-readable and non-retrievable; and (c) Service Provider shall certify to Company, in writing, that Service Provider has complied with its obligations under this Section 12. Upon disposal under any of the above circumstances, unencrypted Information contained in print or electronic media shall be shredded, destroyed, or modified so that it is irretrievable and unreadable. Service Provider shall not charge any additional fees or impose any conditions for complying with the obligations in this Section. Notwithstanding the foregoing, the Service Provider shall not be required to return to Company or destroy copies of Company's Information that (i) reside on the Service Provider's backup, disaster recovery or business continuity systems, all such Information shall permanently be removed and irreversibly destroyed within a reasonable timeframe but no later than three (3) years from the termination or expiration of the Agreement, or (ii) that the Service Provider is obligated by Applicable Law.The confidentiality obligations will continue as long as Company's Data is in Service Provider's possession. Any Information that is not returned to Company shall remain subject to all confidentiality obligations set forth in the Agreement and this Exhibit. Data processing and storage should be done within VDI / Citrix environment given by Company and all mail communications should be handled within Company's mail systems/server.

13. Reserved

14. Limitation of Liability. [redacted]

15. Information Location. Unless otherwise expressly authorized in writing by Company, all Information centers, servers, and backup Information storage locations used by Service Provider for performance of the Services shall be located in the United States of America and/or Canada, India or any other countries as agreed to in writing by Company, which countries shall be specified in an Authorisation, Release or Statement of Work. Service Provider shall create and maintain records of the locations at which Service Provider (including any approved subcontractor) stores Information and retain such records for each such location for a minimum of five (5) years following the removal of Information from such location. Service Provider shall notify Company when changes occur to such storage locations (new, retirement of old, migration from one to another). In the event that Information is hosted at a Service Provider location and Service Provider plans to move Information to an off-site location, Service Provider must notify Company.

16. Country of Origin. All Services, products, services, software (including design and development), and programmable hardware manufacture for products provided to Company

shall not, including with respect to components or materials, be designed, developed, manufactured, or supplied by a foreign adversary of the United States, as such term is defined, from time to time, by the United States government, including Department of Energy ("**DOE**") or Department of State ("**DOS**"), which countries shall include [redacted] and such other countries identified by DOE or DOS from time to time.

17. Attestations. Service Provider must comply with following, or comparable privacy and information-security validation measures, as determined by Company:

(a) [redacted]

18. Upgrades. Service Provider shall provide fourteen (14) days' notice to Company prior to major changes to system configuration, including changes that can affect certification status (if applicable), security or network processes, encryption key lengths, etc. In the event Service Provider plans upgrades or changes to Service Provider's systems or networks that would interfere with Company's business operations, Company may elect to require Service Provider to defer such upgrades for the duration of the then-current contractual arrangement, except to the extent such changes or modifications are reasonably necessary to address security vulnerabilities or prevent interference with business operations.

19. Survival. The obligations of Service Provider set forth above in this Exhibit E shall survive any expiration or termination of the Agreement and shall remain in place for as long as any Information remains in Service Provider's possession, custody, or control (including in the possession, custody, or control of any approved subcontractor).

Redacted

EXHIBIT F

SERVICE PROVIDER'S AFFILIATES

#	Service Provider's branch office or Affiliate's Legal Entity Name	Service Provider's branch office or Affiliate's Jurisdiction and Address
	Tata Consultancy Services Limited	379 Thornall Street, Edison, NJ 08837 Jusrisdiction : USA
	Tata Consultancy Services Limited	Corporate Office at TCS House, Raveline Street, Fort , Mumbai , India 400001 Jurisdiction : India

Business Use

Redacted

PPL Master Professional Services Agreement

Final Audit Report 2022-03-02

Created:	2022-03-01
By:	Ron Sizemore (rsizemore@pplweb.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAKIIIMnnn2IIjUAbND_Is3mftf8wfNOiO

"PPL Master Professional Services Agreement" History

Document created by Ron Sizemore (rsizemore@pplweb.com)
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Agreement completed.
2022-03-02 - 11:53:57 AM GMT

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Exhibit 1
STATEMENT OF WORK

This Statement of Work is made and entered into as of March 16, 2022, between PPL Services Corporation, a Delaware corporation with offices located at Two North Ninth Street, Allentown, PA 18101 (the "**Company**"). and Tata Consultancy Services Limited, a company incorporated in India, and authorized and registered to do business in the Commonwealth of Pennsylvania, United States, with branch offices located at 101 Park Avenue, 26th Floor, New York, NY 10178 USA (the "**Service Provider**").

WHEREAS, Company and Service Provider have executed that Master Professional Services Agreement (Contract Number: 9054523) (the "**Agreement**"), dated as of February 28, 2022 (the "**Effective Date**") pursuant to which Company and Service Provider agreed to certain provisions regarding Services to be performed by Service Provider;

WHEREAS, Company desires to engage Service Provider to perform the Services described in this Statement of Work on the terms and conditions stated in the Agreement;

NOW, THEREFORE, Company and Service Provider hereby agree as follows:

1. Agreement. Capitalized terms used but not defined herein shall have the respective meanings given such terms in the Agreement. This Statement of Work shall be governed by the terms and conditions of Sections 1 through, inclusive, of the Agreement (including all amendments thereto, as expressly modified or supplemented hereby, all of which are hereby incorporated herein.

2. Services. The Services to be performed by Service Provider under this Statement of Work are as follows:

(a) Background:

The described are for the discovery and planning of the Company's AMI integration of Rhode Island (RI) resources/operations/systems into the larger PPL PA operations. The AMI Program refers to the combination of the AMR related work to support exiting the TSA, and the AMF program to deploy smart meters to RI. These services will prepare the Company for AMI/AMR work related to RI up to the point of Vendor Contract Negotiations, Design & Implementation.

(b) Objectives:

The Company has identified two primary objectives for the AMI/AMR program.

- "TSA-Exit" Roadmap for the RI interim solution to exit the TSA by 2024.
- "RI AMI Deployment" Roadmap for the RI AMI enterprise solution to deploy AMI electric meters immediately following the TSA-Exit.

Beyond these two objectives, there are a number of additional tactical objectives associated with the efforts.

- Support RI AMR solution
- Minimize "throw-away" work
- Integrate RI AMI/AMR plan with overall TSA-Exit Program
- Support peripheral TSA Exit work related to RI AMI as required by other external programs once approved.

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(c) Services:

The services are divided into three sets of key activities.

i. Discovery & Program Strategy:

The first phase of work involves a rapid documentation and assessment of the overall AMI/AMR strategy for RI. This work includes the following key activities:

- Confirm RI AMI/AMR strategy, document future state architecture
- Document high level architecture changes (new/updated interfaces, affected applications)
- Verify new software, if needed
- Determine functional adjustments and change impacts (determine impacted programs)

This phase results in the following deliverables:

- Combined RI AMI/AMR Roadmap (inclusive of TSA-Exit and RI AMI deployment)

ii. Facilitate Software Fit Analysis:

The next phase involves facilitating software assessment and selection of potential interim AMR or other software required to support RI AMR services, as well as any other interim software identified as part of the RI AMI/AMR Program Strategy. This work includes the following key activities:

- Validate new software needs (timeframe, functions, key integrations needed)
- Assess functionality of software options selected (if required)
- Confirm software selection

This phase results in the following deliverables:

- Selected software and decision justification

iii. Implementation Requirements, Estimate & Planning:

This phase is the primary requirements, planning, and estimation work to determine the effort required and plan to execute RI AMI/AMR strategy. This results in the Company being ready to proceed with Design and Implementation of TSA-Exit solutions, as well as continuing work with the RI AMI Deployment if desired. This work includes the following key activities:

- Develop program requirements and RICEFW-A inputs, processing, and outputs. RICEFW-A elements are the base elements for software development efforts, inclusive of Reports, Interfaces, Conversions, Enhancements, Forms, Workflows, and Applications.
- Develop RICEFW-A inventory by application
- Identify and document all interfaces/integrations with other systems/applications
- Facilitate/support high level change impact assessment
- Align timelines, requirements and change impacts with adjacent programs

This phase results in the following deliverables:

- Integrated Plan for design and implementation
- Requirements and estimates for RI TSA-Exit and RI AMI/AMR
- Building out of vendor requirements and scope

iv. Support Efforts:

Redacted

Beyond direct work as described in the previous three sets of activities, the Service Provider will support the overall RI AMI/AMR effort with project management services related to the AMI/AMR efforts, as well as support integration planning with other TSA-Exit initiatives. This is expected to be less than 10% of the total effort during the Discovery & Planning work.

v. Key Assumptions:
In order to achieve the schedule desired, as well as the reliability of the integrated plan, requirements, and estimate model, rapid responses to inquiries and decision making is needed. This assumes that either the PPL AMI/AMR team can respond and approve, or rapidly facilitate responses and approvals needed. This thinking results in the following key assumptions:

(a) PPL team leadership and team members can provide/clarify 75% of system architecture decisions and requirements.

(b) For any information and integrated planning requiring coordination with PPL teams outside the AMI/AMR team (e.g., CSS team, WMS team, outside vendors), we can obtain responses to inquiries or coordinate working in a timely manner.

(c) Review and if appropriate approval of working materials can occur within one working day. Review and if appropriate approval of final materials can occur within 2 working days.

3. Service Provider Contract Manager, Key Personnel and Service Provider's Affiliates

(a) The Service Provider Contract Manager shall be:
Name: Shuchi Mehta
Email address: shuchi.mehta@tcs.com

(b) The Key Personnel shall be:
Name: David F. Bailey
Email address: david.bailey@tcs.com
Name: Dillip Pradhan
Email address: dillip.p@tcs.com
Name: Arunangshu Basak
Email address: arunangshu.basak@tcs.com

These key personnel are the dedicated points of contact for this initiative and the Service Provider will only adjust key personnel after prior discussion with the Company.

4. Schedule: The schedule for the Services to be performed by Service Provider under this Statement of Work assumes a March 21st, 2022 start, and includes tasks as follows:

Line Item	Task	Completion Date
1.	Discovery and Program Strategy	April 8, 2022
2.	Facilitate Software Fit Analysis	April 22, 2022
3.	Implementation Requirements, Estimate & Planning	May 20, 2022

The schedule for the Services is shown in Figure 1 below:

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Statement Of Work - TCS **Contract No 9054523**

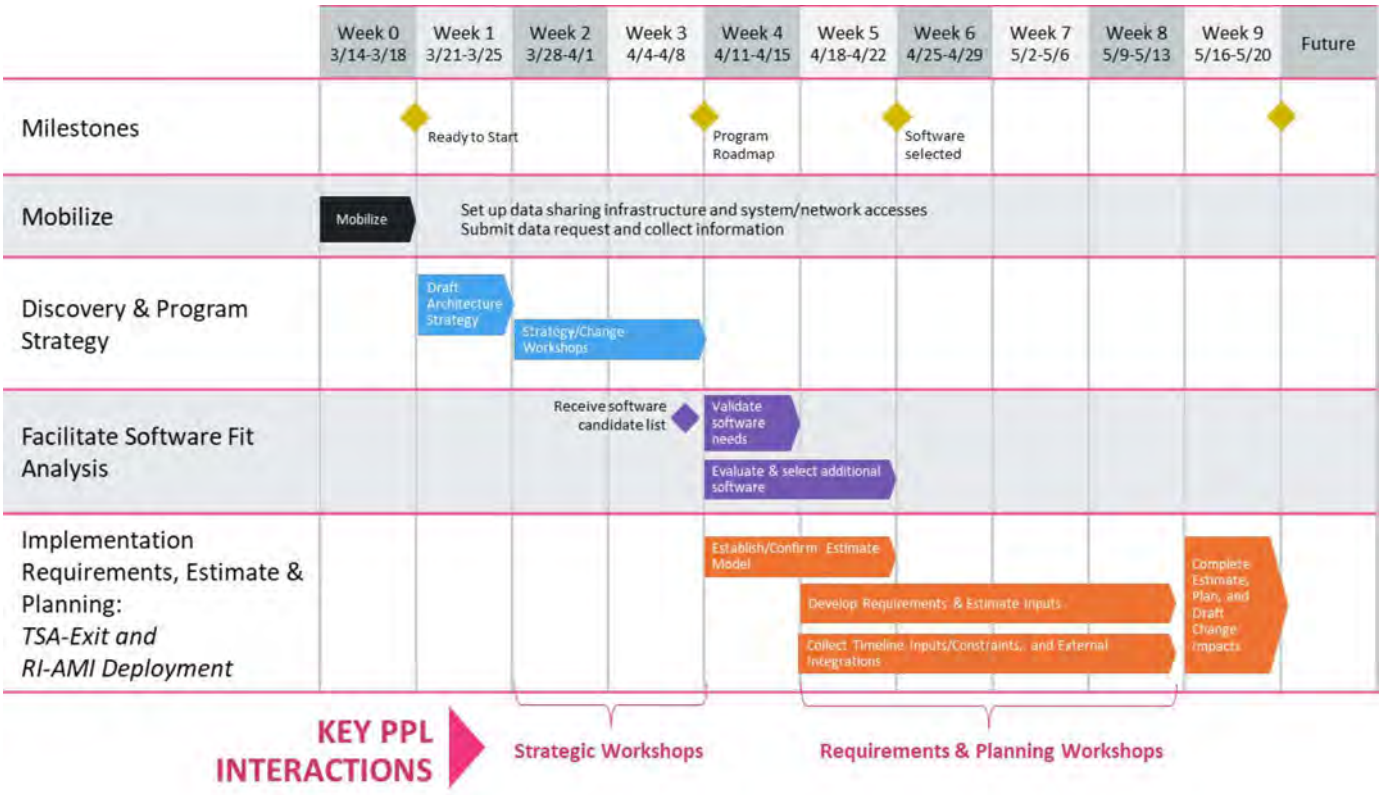

Figure 1: RI AMI/AMR Discovery & Planning Schedule

5. Key Deliverables: The Deliverables required under this Statement of Work, along with a description of the Deliverables and completion date, are described below:

Line Item	Deliverable	Completion Date
1.	Combined RI AMI/AMR Program Roadmap	April 8, 2022
2.	Selected Software and Decision Justification	April 22, 2022
3.	Integrated Plan for Design and Implementation	May 20, 2022
4.	Requirements and estimates for RI TSA-Exit and RI AMI/AMR	May 20, 2022

6. Milestones:

Milestone	Due Date
Mobilization Complete	March 21, 2022
Program Roadmap Complete	April 8, 2022
Software Selected	April 22, 2022
Ready to Start Design Phase	May 20, 2022

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Statement Of Work - TCS **Contract No 9054523**

7. Pricing: The project would be delivered in a fixed price model. The milestone tasks, the task completion dates, and the milestone values are listed below-

Milestone	Milestone Date	Milestone Value
Mobilization Complete	March 21, 2022	[redacted]
Program Roadmap Complete	April 8, 2022	[redacted]
Software Selected	April 22, 2022	[redacted]
Ready to Start Design Phase	May 20, 2022	[redacted]
Total		[redacted]

8. Term: This Statement of Work will remain in effect for a period of **9 WEEKS**, unless earlier terminated in accordance with the Agreement.

9. Payment Terms: Payment terms shall be as per agreement in Master Professional Services Agreement (Sec 7.3).

10. Termination: Termination clauses will be applicable as agreed in Master Professional Services Agreement (Article-XIII).

11. Additional Terms:
    (a) Work requirement involvement of PPL and 3rd parties will be primarily done during customary Pennsylvania business hours.
    (b) All prices and rates quoted in this proposal are in USD and are exclusive of any taxes.
    (c) TCS assumes that PPL will provision all the necessary required accesses, seating office space and laptops for TCS associates working from PPL locations during the term of the engagement.
    (d) Any travel / accommodation related expenses that arise due to travel from agreed base location of the project or service to a new location, will be charged at actuals. Such expenses will be billed to PPL as per PPL's travel policy.
    (e) TCS has proposed to leverage the existing PPL's tools, software licenses for the scope of this project.

[SIGNATURE PAGE FOLLOWS]

Redacted

IN WITNESS WHEREOF, the Parties hereto have executed this Statement of Work as of the date first above written.

COMPANY:
PPL Services Corporation

By: Jim Polisano (Mar 24, 2022 14:40 EDT)

Name: Jim Polisano

Title: Mgr, IT/Indirect Sourcing

Date: 03/24/2022

SERVICE PROVIDER:
Tata Consultancy Services Limited

By: Sabyasachi Chandra

Name: Sabyasachi Chandra

Title: Business Unit Head - Utilities Americas

Date: 03/22/2022

Redacted

EXHIBIT 1
STATEMENT OF WORK

This Statement of Work is made and entered into as of June 13, 2022, between PPL Services Corporation, a Delaware corporation with offices located at Two North Ninth Street, Allentown, PA 18101 (the "**Company**"). and Tata Consultancy Services Limited, a company incorporated in India, and authorized and registered to do business in the Commonwealth of Pennsylvania, United States, with branch offices located at 101 Park Avenue, 26th Floor, New York, NY 10178 USA (the "**Service Provider**").

WHEREAS, Company and Service Provider have executed that Master Professional Services Agreement (Contract Number: 9054523) (the "**Agreement**"), dated as of February 28, 2022 (the "**Effective Date**") pursuant to which Company and Service Provider agreed to certain provisions regarding Services to be performed by Service Provider;

WHEREAS, Company desires to engage Service Provider to perform the Services described in this Statement of Work on the terms and conditions stated in the Agreement;

NOW, THEREFORE, Company and Service Provider hereby agree as follows:

1. Agreement. Capitalized terms used but not defined herein shall have the respective meanings given such terms in the Agreement. This Statement of Work shall be governed by the terms and conditions of Sections 1 through, inclusive, of the Agreement (including all amendments thereto, as expressly modified or supplemented hereby, all of which are hereby incorporated herein.

2. Services. The Services to be performed by Service Provider under this Statement of Work are as follows:

Background & Objectives

The Company is in the process of purchasing Narragansett Electric Company in Rhode Island from National Grid. As part of this effort, the Company is undertaking the integration of the Rhode Island (RI) resource, operations, and systems into the larger PPL Pennsylvania (PA) operations. This includes adopting the intent of National Grid's Advanced Meter Functionality (AMF) Program, as further defined by PPL's AMF proposal to the RI PUC. As such, the Company has established their own RI Metering Program.

The PPL RI Metering Program includes two key objectives:

- Support TSA-Exit and the transition of RI resources, operations, and systems to PPL systems with in two years after the RI transaction (estimated May 2024)
- Support the AMF Program with deployment of systems that enable functionality elements as described in the AMF Program Strategy & Roadmap (Attachment 1).

Scope

The strategy of the RI Metering Program is to align RI AMI systems to mirror the current PA AMI architecture and functions as close as possible. The differences b/w PA and RI will be driven from regulatory and/or gas operations. This is deployed in two parts.

- Part 1, "TSA-Exit & AMF Ready TSA-Exit +1": Functionality in RI to Exit TSA in 24 months, and ready for AMF Deployments
- Part 2, "AMF Deployment & Enhancements": Begin deploying RF electric meters in RI, deliver incremental functionality releases, while supporting earlier releases until the final release is delivered and stable.

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Statement Of Work **Contract No 9054523**

These two parts are aligned around the TSA-Exit milestone, within two years after the RI transaction becomes final. The AMF Program functionality (inclusive of TSA-Exit functions and AMF functions) and timing is shown in Figure 1.

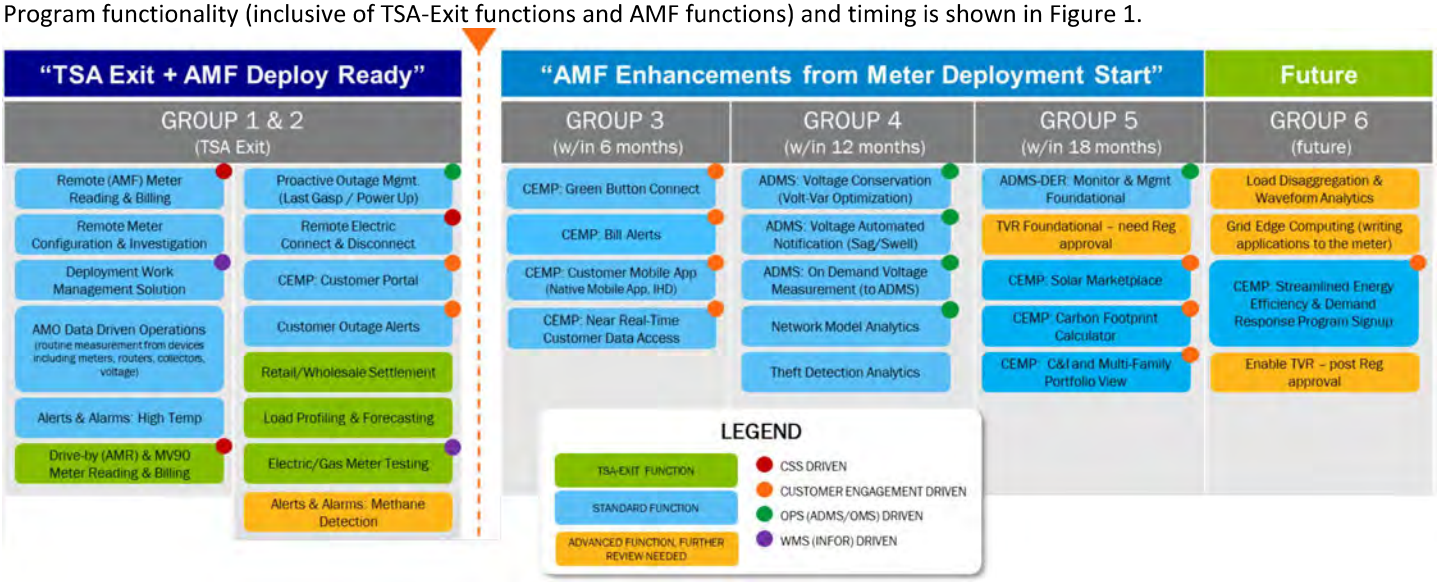

Figure 1: Operational Functionality Enabled by the AMF Program and Timing

Services

The Service Provider team will act as the System Integrator (SI) for RI Metering Program systems, developing, testing, implementing functionality, design and implement integrations of the AMI systems, to support the functions in Figure 1, either directly or by coordinating/driving the efforts of 3rd party vendors selected and contracted by the Company. SI role includes ongoing reporting to stakeholders, higher level PMO coordination, scheduling/planning for Systems/applications, all agile ceremonies/practices, securing approvals, ongoing coordination with defined interfaced application teams, writing test plans, executing test plans, testing with metering hardware devices, reporting defects, working defects to resolution, retesting, determining various application access roles, management of multiple application environments, analysis of issues to drive resolution, planning for and securing cloud and/or on-prem resources (servers, storage, networking, firewalls, computing capacity, network capacity, field equipment, go-live planning/execution, post go-live support, compliance with PPL policies and procedures, etc.). Systems in scope include the following, and all interfaces to these systems:

- AMR Collection
- MV90 Collection
- AMI Collection & Head End
- MDMS
- Retail & Wholesale Settlement
- Load Profiling & Forecasting
- Meter Testing

This SOW covers the Program Increment (PI) Pre-Planning, Backlog Refinement, and Vendor Contract Support effort that occurs during the first two to three months of the RI Metering Program, until the full SOW is finalized, vendors onboarded, and agile development work started. Specific activities included are:

A. PI Pre-Planning & Backlog Refinement:
   i. Administrative PI Preparation
      (a) Resource onboarding and provisioning of network/system access
      (b) Provisioning of the Agile tracking system, Agile performance metrics, and program reporting templates
      (c) Defining and identification of Agile Team roles
      (d) Establishment and development of AMI program level documentation, including the Charter, Scope Change Management Plan, and Architecture Principals
   ii. RI Metering Program familiarization with relevant stakeholders and new team members

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Statement Of Work **Contract No 9054523**

(a) Strategy & Roadmap stakeholder review
(b) Requirements and estimate model stakeholder review
(c) Identification of RI Metering Program governance stakeholders, and meeting governance process requirements (e.g., NTAP, Tiering Questionnaire, Reporting, Legal, Code Standards, Architecture and Security Review Board (ARB) presentations, Iteam/SRS entries)

iii. RI Metering Program user stories, requirements finalization, and Program Increment (PI) planning
(a) Review/Update High level program objectives
(b) Create backlog
(c) Review and Finalize RI Metering Program requirements, (e.g., functional, non-functional, performance, acceptance criteria, meter data collection devices, and meter testing hardware devices), adjusting into user stories, and aligning to Epics and Features
(d) Derive high level Epic Roadmap with program increment & features listing along with dependencies
(e) Populate the Agile tracking system (assumed to be Azure DevOps) with the epics and user stories
(f) Service Provider and Company to jointly develop acceptance criteria for user stories

B. Vendor Contract Support:
i. Identify and communicate RI Metering Program requirements by vendor
ii. Capture, document and draft all functional components of each vendor SOW. This includes requirements, services, and interface listing.
iii. Facilitate vendor scope requirement discussions, excluding pricing negotiations.
iv. Develop internal Company required governance documents for software procurement (e.g., NTAP, Tier definition, Architectures and Security Review, Compliance Determination).
v. Integrate vendor timeframes into the overall schedule, identify dependencies, and raise conflicts.
vi. Daily active engagement with Company and vendors completing tasks needed to arrive at a final SOW (providing information as needed, SOW language development, requirements, roles and responsibilities, identify work milestones, overall schedule, ongoing revision, arranging calls/meetings, etc.). Note, this does not include pricing or terms & conditions negotiations.

Key Assumptions

- The Service Provider cannot negotiate on the Company's behalf, nor will draft any financial or legal SOW components. All terms and conditions will be drafted by the Company. In all discussions with 3rd party vendors, Company will provide representation, and make all final decisions regarding vendor contract terms and economics.
- The Service Provider is authorized to govern and manage metering related systems and integrations. This does not include governance and management of CSS, ADMS, OMS, and customer engagement systems. The Service Provider will coordinate with these additional teams, and make all efforts to influence their results, but is not accountable for developed functions within those systems.

3. Service Provider Contract Manager, Key Personnel and Service Provider's Affiliates:

(a) The Service Provider Contract Manager shall be:
Name: Shuchi Mehta
Email address: shuchi.mehta@tcs.com

(b) The Key Personnel shall be:
Name: David F. Bailey
Email address: david.bailey@tcs.com
Name: Dillip Pradhan
Email address: dillip.p@tcs.com
Name: Arunangshu Basak
Email address: arunangshu.basak@tcs.com

Redacted

These key personnel are the dedicated points of contact for this initiative and the Service Provider will only adjust key personnel with Company approval.

4. Schedule: The schedule for the Services to be performed by Service Provider under this Statement of Work assumes a May 23, 2022, start, and covers the described activities over a three-month period.

Line Item	Task	Completion Date
1.	Requirements and estimate model stakeholder review	June 3, 2022
2.	Draft PPL Business Case	June 3, 2022
3.	Strategy & Roadmap stakeholder review	June 13, 2022
4.	Contract draft inputs for AMR hardware/head End vendor	June 13, 2022
5.	Contract draft inputs for AMI head End/MDMS/Retail Settlement vendor	June 13, 2022
6.	Contract draft inputs for MV90 and MetrixND vendor	June 13, 2022
7.	Familiarize Agile Team w/ Azure DevOps	July 1, 2022
8.	Draft NTAP Forms	July 1, 2022
9.	Draft Architecture Review Board Presentation	July 1, 2022
10.	Contract draft inputs for Wholesale settlement vendor	July 8, 2022
11.	Contract draft inputs for the meter testing vendor (gas & electric)	July 8, 2022
12.	Ready to Receive Initial Set of Field Equipment from AMR collection vendor for Testing	July 15, 2022
13.	Establishment of AMI program documentation templates (Charter, Scope Change Management, etc.)	July 15, 2022
14.	Draft System Integrator Metering Implementation SOW for review & approval.	July 15, 2022
15.	Set up development environments for selected vendors to support development start of Program Increment 1 (PI1)	July 27, 2022
16.	Define and identification of Agile Team roles	July 27, 2022
17.	Plan Program Increment #1 (PI1)	July 31, 2022
18.	Use Cases loaded in Agile Tracking System (assumed to be Azure DevOps)	July 31, 2022
19.	Extended backlog refinement and PI planning activities	August 31, 2022

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Statement Of Work **Contract No 9054523**

The schedule for the Services is shown in Figure 2 below:

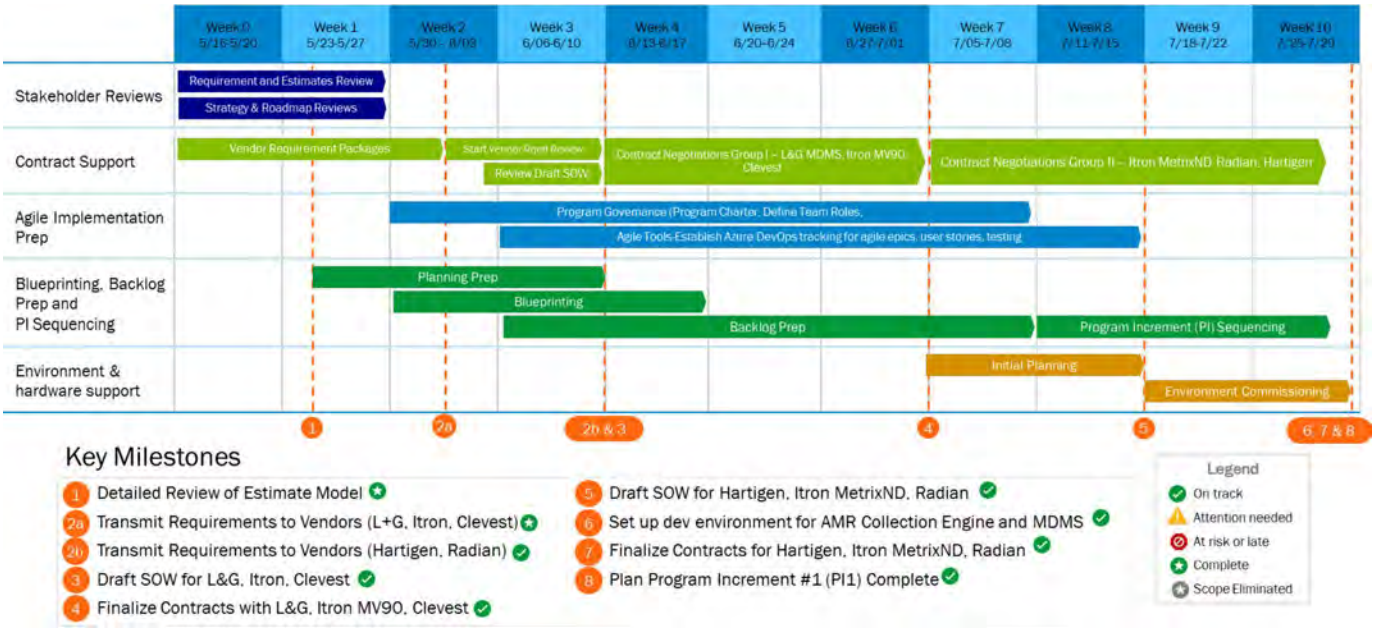

Figure 2: RI Metering Program PI Planning & Backlog Refinement Schedule

The schedule for the Vendor Engagement is shown in Figure 3 below:

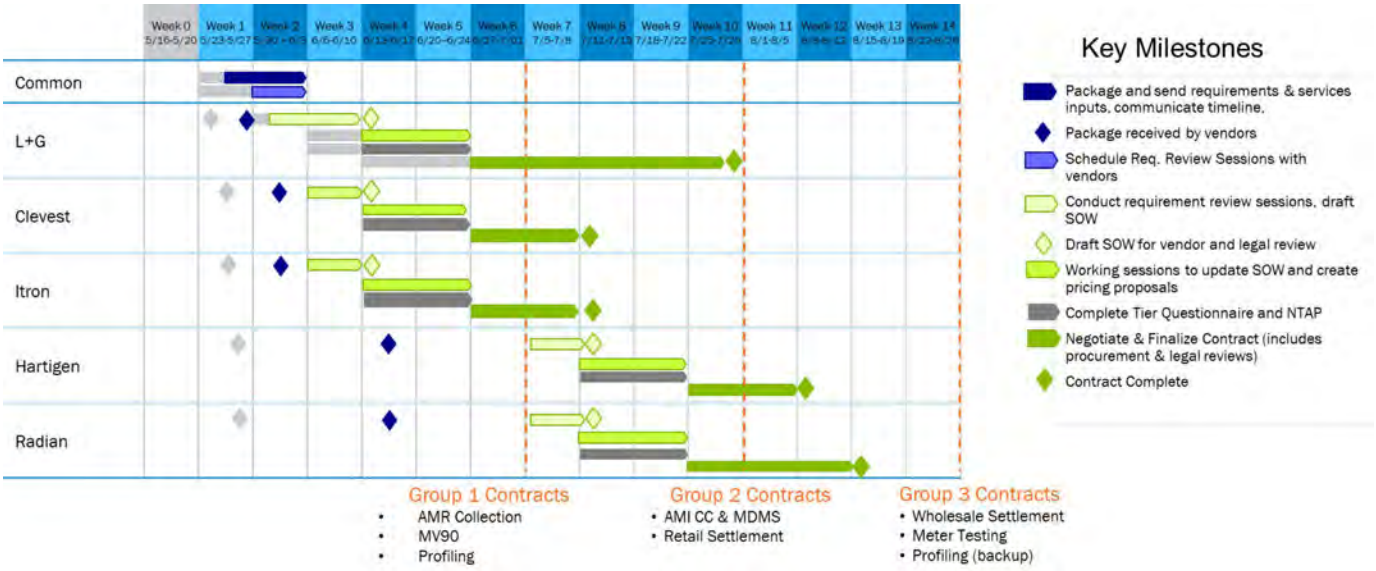

Figure 3: RI Metering Program Vendor Engagement Schedule

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Statement Of Work **Contract No 9054523**

5. Key Deliverables: The Deliverables required under this Statement of Work, along with a description of the Deliverables and completion date, are described below:

Line Item	Deliverable	Planned Completion Date
1.	Contract inputs with AMR Hardware/Head End vendor	June 13, 2022
2.	Contract inputs with AMI Head End/MDMS/Retail Settlement vendor	June 13, 2022
3.	Contract inputs for MV90/MetrixND vendor	June 13, 2022
4.	Contract inputs for Wholesale Settlement vendor	July 8, 2022
5.	Contract inputs for Meter Test vendor	July 8, 2022
6.	Approved documentation templates (Charter, Scope Change Management, etc.)	July 15, 2022
7.	Development environments to support start of Program Increment 1 (PI1)	July 27, 2022
8.	Program Increment #1 (PI1) Plan	July 29, 2022
9.	Use Cases Complete in Azure DevOps	July 29, 2022

Deliverables will be completed in an agile method, with joint agreement on alignment to milestones in section 6. If the schedule is adjusted, deliverables may be adjusted between different monthly milestones during the service delivery period, only with joint agreement between the Service Provider and Company.

6. Milestones:

Milestone	Due Date
1. June Deliverables Complete	June 24, 2022
2. July Deliverables Complete	July 29, 2022
3. August Deliverables Complete	August 31, 2022

7. Pricing: The project would be delivered in a fixed price model. The milestone tasks, the task completion dates, and the milestone values are listed below:

Milestone	Targeted Milestone Date	Milestone Value
Milestone 1	June 24, 2022	[redacted]
Milestone 2	July 29, 2022	[redacted]

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Milestone 3	August 31, 2022	[redacted]
Total		[redacted]

8. Term: This Statement of Work will remain in effect for a period of **15 WEEKS**, unless earlier terminated in accordance with the Agreement.

9. Payment Terms: Payment terms shall be as per agreement in Master Professional Services Agreement (Sec 7.3).

10. Termination: Termination clauses will be applicable as agreed in Master Professional Services Agreement (Article-XIII).

11. Additional Terms:
    (a) Work requiring involvement of PPL and 3rd parties will be primarily done during customary Pennsylvania business hours.
    (b) All prices and rates quoted in this proposal are in USD and are exclusive of any taxes.
    (c) Service Provider assumes that Company will provision all the necessary required accesses within PPL policies and processes, including laptops/VPNs for Service Provider personnel.
    (d) Any travel / accommodation related expenses that arise due to travel from agreed base location of the project or service to a new location, will be charged at actuals. Such expenses will be billed to Company as per Company's travel policy.
    (e) Service Provider has proposed to leverage the existing Company tools, software licenses for the scope of this project.
    (f) Service Provider will not negotiate with 3rd party providers on Company behalf.

Redacted

Statement Of Work **Contract No 9054523**

IN WITNESS WHEREOF, the parties hereto have caused this Individual Release to be duly executed as of the day and year first above written by their duly authorized representatives, intending to be legally bound thereby.

COMPANY:

PPL SERVICES CORPORATION

By: Jacob Baker
Jacob Baker (Jun 23, 2022 08:54 EDT)

Name: Jacob Baker

Title: Intermediate Category Manager

Date: 06/23/2022

SERVICE PROVIDER:

TATA CONSULTANCY SERVICES LIMITED

By: Sabyasachi Chandra

Name: Sabyasachi Chandra

Title: Business Unit Head - Utilities North America

Date: 06/23/2022

Redacted

STATEMENT OF WORK

This Statement of Work is made and entered into as of September 1, 2022, between PPL Services Corporation, a Delaware corporation with offices located at Two North Ninth Street, Allentown, PA 18101 (the "**Company**"). and Tata Consultancy Services Limited, a company incorporated in India, and authorized and registered to do business in the Commonwealth of Pennsylvania, United States, with branch offices located at 101 Park Avenue, 26th Floor, New York, NY 10178 USA (the "**Service Provider**").

WHEREAS, Company and Service Provider have executed that Master Professional Services Agreement (Contract Number: 9054523) (the "**Agreement**"), dated as of February 28, 2022 (the "**Effective Date**") pursuant to which Company and Service Provider agreed to certain provisions regarding Services to be performed by Service Provider.

WHEREAS, Company desires to engage Service Provider to perform the Services described in this Statement of Work on the terms and conditions stated in the Agreement.

NOW, THEREFORE, Company and Service Provider hereby agree as follows:

1. Agreement. Capitalized terms used but not defined herein shall have the respective meanings given such terms in the Agreement. This Statement of Work shall be governed by the terms and conditions of Sections 1 through, inclusive, of the Agreement (including all amendments thereto, as expressly modified or supplemented hereby, all of which are hereby incorporated herein. If there are any conflicts between the Agreement and this Statement of Work, this Statement of Work will take precedence.

2. Services. The Services to be performed by Service Provider under this Statement of Work are as follows:

Background & Objectives

The Company is in the process of transitioning services to the Rhode Island Electric and Gas Utilities from National Grid. As part of this effort, the Company is undertaking the integration of the Rhode Island (RI) resource, operations, and systems into the larger Company operations. This includes adopting the intent of National Grid's Metering Systems Program. As such, the Company has established their own Metering Systems Program.

The Company Metering Systems Program includes two key objectives:

- Support Transition Services Agreement (TSA)-Exit and the transition of RI resources, operations, and systems to Company's selected systems within two years after the RI transaction (estimated May 2024)
- Support the Rhode Island Energy (RIE) Advanced Metering Functionality (AMF) Program with deployment of systems that enable functionality elements as described in the AMF Program Strategy & Roadmap.

Scope

The strategy of the RIE Metering Systems is to mirror the current PA AMI architecture and functions as close as possible. This is deployed in two parts.

- Part 1, "TSA-Exit & AMF Ready TSA-Exit +1": Functionality in RI to Exit TSA within 24 months, and ready for AMF Deployments
- Part 2, "AMF Deployment & Enhancements": Begin deploying meters in RI, and start incremental functionality releases

These two parts are aligned around the TSA-Exit milestone, within two years after the RI transaction becomes final. The AMF Program functionality is predicated on the approval of the Company's AMF filing by the Rhode Island Public Utilities Commission (RIPUC) and timing is shown in Figure 1. A change order, or notice of work stoppage specific to AMF, shall be utilized in the event the RIPUC order modifies or rejects the Company's AMF filing. Any notice of work stoppage shall contemplate compensation of Service Provide for costs incurred and any applicable standdown costs mutually deemed as reasonable.

Redacted

Statement Of Work - TCS **Contract No 157776**

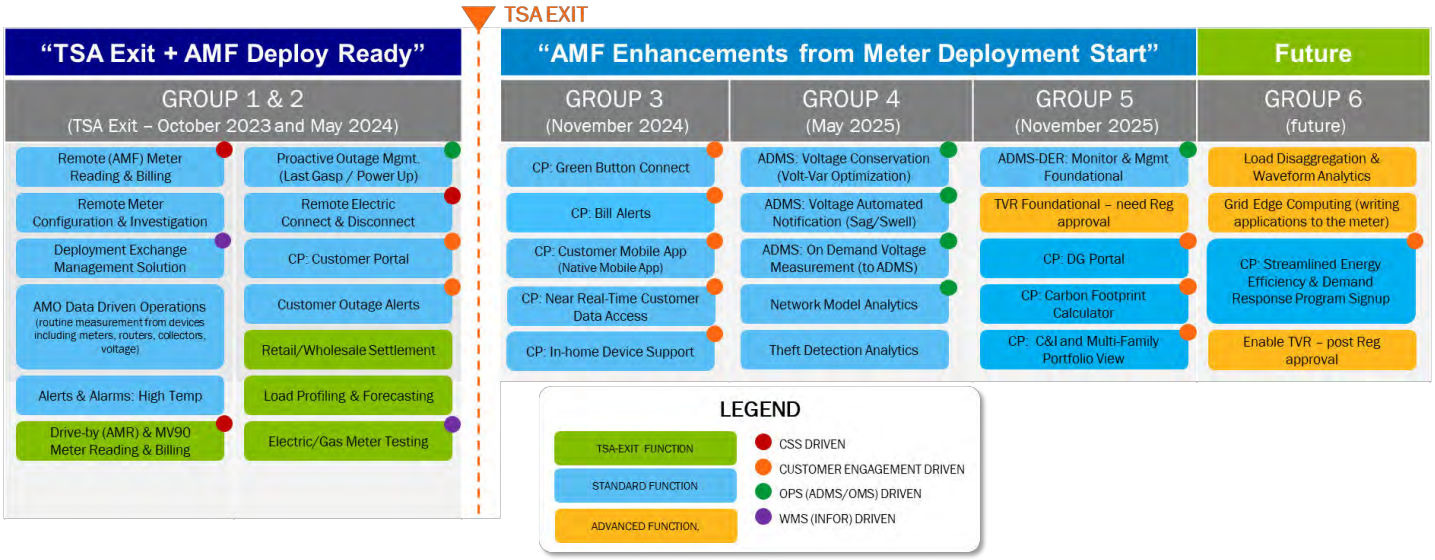

Figure 1: Operational Functionality Enabled by the AMF Program and Timing

The Service Provider team will act as the System Integrator (SI) for RI Metering Program systems, developing, testing, implementing functionality, designing and implementing integrations of the these systems to support the functions in Figure 1, either directly or by coordinating/driving the efforts of 3rd party vendors selected and contracted by the Company. SI role includes ongoing reporting to stakeholders, coordination with Company's higher-level PMO, scheduling/planning for in scope systems/applications, all agile ceremonies/practices, securing approvals, ongoing coordination with defined interface application teams, writing test plans, executing test plans, testing with metering hardware devices, reporting defects, working defects to resolution, retesting, determining various application access roles, management of multiple application environments, analysis of issues to drive resolution, coordinating primary user knowledge transfer and awareness to operate the metering solutions upon TSA exit (excludes RI AMF functionality), planning for and securing cloud and/or on-prem resources (servers, storage, networking, firewalls, computing capacity, network capacity, field equipment, go-live planning/execution, post go-live support, compliance with Company policies and procedures, etc.). Systems in scope include the following, and all interfaces to these systems:

- AMR Gas and Electric Collection
- MV90 Gas and Electric Collection
- AMI Collection & Head End
- MDMS
- Retail & Wholesale Settlement
- Load Profiling & Forecasting
- Gas and Electric Meter Testing

These systems are shown in the draft application architecture developed during the discovery & planning process, Figure 2.

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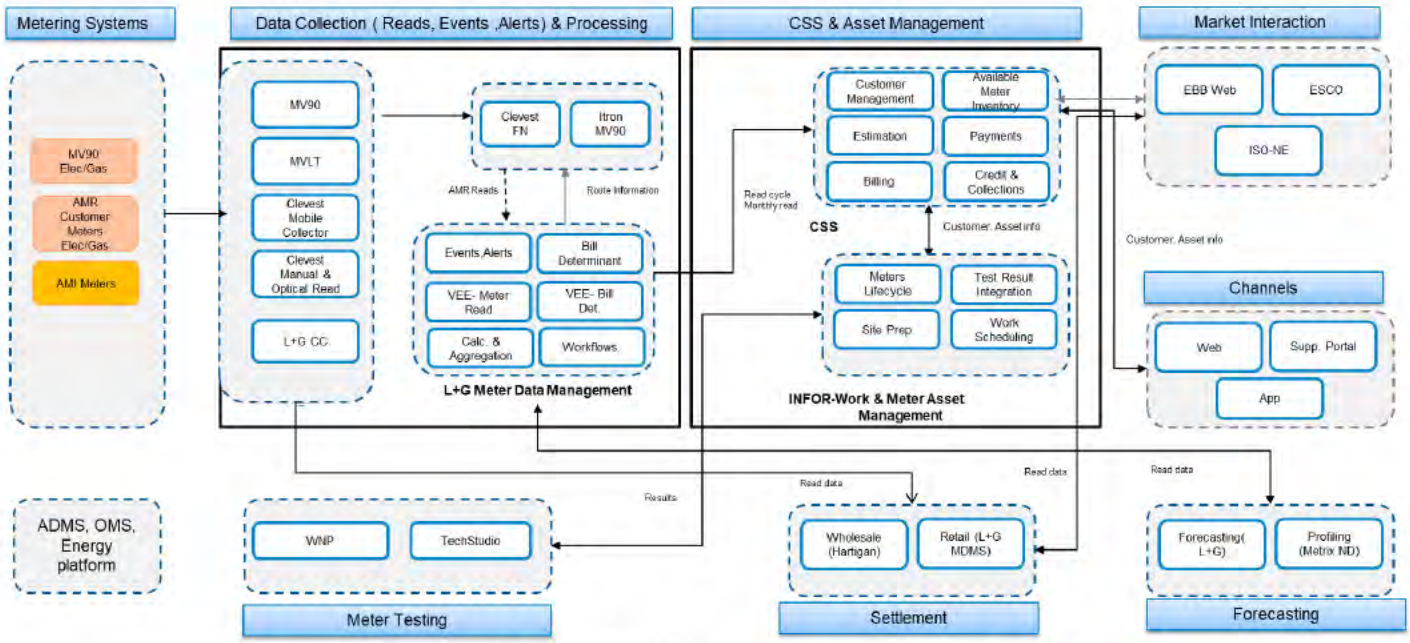

Figure 2: Draft Application Architecture for the Metering Program

The scope's effort is based on implementing functions as described in the Requirements Matrix, Attachment 1. Service Provider has evaluated the requirements in the Requirements Matrix with a level of effort per the Estimation Model (Attachment 2). These assignments of effort are based on the criteria in Table 1.

Table 1: Requirement Complexity by Lead Vendor driving the effort

Lead Vendor	Very High	High	Medium	Low	Very Low
SERVICE PROVIDER	0	7	19	17	5
AMF HE & MDMS Vendor	23	64	95	94	28
AMR Vendor	0	5	11	15	1
MV90 Vendor	0	4	2	3	14
Company & Others	3	12	30	30	11
Interfaces (Service Provider)	24	68	95	98	33

While the lead vendor is ultimately responsible for implementing the requirements, the Service Provider Team facilitates the functional design, interface design and implementation, and test script writing, as shown in the "Estimate Input" tab of the Estimation Model (Attachment 2).

The interface requirements in Table 1 refer to the functional requirements enabled by a program interface. The expected interfaces to be implemented are shown in Table 2. Recognize that between any pair of one Source system and one Target systems listed in Table 2, there are often several individual interfaces, some moving data from Source to Target, and some moving data from Target to Source. As an example, there are approximately 20 interfaces between CSS and MDMS. Interfaces for AMI/AMF Meter are not listed here, but are in the scope of this Statement of Work. Note that Meter Test includes both Gas and Electric Meter Test systems. Similarly MV90 includes both Gas and Electric MV90 systems. The Service Provider has been centrally involved in writing Statements of work between Company and software system vendors. As such, any interfaces required in those vendor Statements of work are also in scope for this Statement of Work.

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Table 2: Expected Interfaces

Source System	Target System
MDMS	CSS
AMF HE	CSS
Load Profiling	CSS
AMF HE	ADMS
AMF HE	OMS
AMF HE	MDMS
AMF HE	Customer Portal
AMF HE	RF Bridge
AMF HE	Data Lake
AMF HE	IHD or HAN device
AMR	MDMS
AMR	MV90
Meter Test	Infor
AMF HE	Infor
Load Profiling	MDMS
MDMS	OMS
MDMS	ADMS
MDMS	Customer Portal
MDMS	Supplier Portal
MDMS	Wholesale Settlement
MDMS	Data Lake
MDMS	Gas Wholesale Settlement
MV90	MDMS
Wholesale Settlement	PI Historian
MDMS	NE-ISO
Wholesale Settlement	NE-ISO

Services

The Services cover the RI Metering Program Implementation, inclusive of the major activities through the TSA-Exit period to set up the systems for use and AMF meter installations (through May 2024), followed by additional functionality releases through the AMF meter installations (through December 2025). Specific activities included are:

1. Facilitating Company's management of the Program and Agile Release Trains (ARTs) using Service Provider's Location Independent Agile (LIA) methodology. This includes:
    a. Creation of Epics and User Stories that fulfill the requirements in the Requirements Matrix (Attachment 1).
    b. Facilitating backlog grooming.
    c. Tracking & monitoring sprint team progress.
2. As the SI, the Service Provider is responsible to project manage the other vendor(s) requirements for systems in part 3 of this section and actively manage those requirements via Agile Scrum teams from inception, to installation, to testing, to defect reporting, to retesting, to environment promotions, to Go-Live and acceptance; all consultation with PPL. Service Provider is not expected to made software changes to vendor systems.
3. Facilitate and assist third party vendors with development of applications, enhancements, workflows, forms and reports in the following systems, as described in the Requirements Matrix.
    a. AMR Data Collection
    b. MV90 Data Collection
    c. AMI Data Collection and Head End
    d. Meter Data Management
    e. Retail Settlement
    f. Wholesale Settlement

g. Meter Testing

4. Development of applications, enhancements, workflows, forms & reports for Load Profiling & Forecasting per the Requirements Matrix.
5. Development of integrations from third party vendor systems to Company systems. The planned integrations are listed in Table 2 and will be developed to support functionality per the Requirements Matrix.
6. Data conversion of current RI information into company systems to support RI Metering system development and cutover. This includes both performance of data transformation and facilitation or performance of data load.
7. Facilitation and participation in hardware and software testing including scenario design & review, test data staging, test script writing, and test execution.
8. Responsible for facilitating or performing all aspects of testing software integrations.
9. Service Provider will be responsible to coordinate primary user (RIE) knowledge transfer and awareness to operate the metering solutions upon TSA exit. This excludes RI AMF functionality. Knowledge transfer to business personnel is assumed to occur with (a) the involvement of business product owners through the agile design, build & testing processes and (b) involvement of business product owners and SMEs in test execution.
10. Facilitate tracking of third-party AMI meter deployments by development of a Meter Deployment Management solution. The solution shall act as an interface between Company systems and third-party meter deployment vendor systems, expected to be a daily file transfers, synchronizing data between the systems.

Service Provider will adopt a well-defined 'Roles and Responsibilities matrix' for making sure that the participation from Company is at all phases of the data migration process. This will ensure adequate clarity on the responsibilities to be furnished from all parties. Table 3 is the proposed RACI matrix to be revalidated and finalized during blueprint/design phase.

1. Responsible (R): The entity that does the work to achieve the task. There is typically one role with a participation type of Responsible, although others can be delegated to assist in the work required.
2. Accountable (A): The entity that is ultimately accountable for the correct and thorough completion of the deliverable or task. This specifically includes timely review, validation, and approval of designs, configurations, and data resulting from the work that the Responsible party provides.
3. Consulted (C): The entities whose opinions and timely inputs are required to facilitate the work of the Responsible entity; and with whom there is two-way communication.
4. Informed (I): The entities who are kept up to date on progress and with whom there is just one-way communication.

Table 3: System Integrator RACI for the RI Metering Program

Work Description	Service Provider Team	Company Team
Agile Team Facilitation		
Provide points of contact to interface with user groups	I	R/A
Access to Company Systems to Onsite & offshore teams	I	R/A
Provide SMEs from users' groups for participation in the requirements workshops, user interactions and testing	I	R/A
Support Solution Integration with issues related to Data [clarifications] in terms of understanding [non-technical]	R	A/C
Functional Design & User Stories		
Facilitate and manage the coordination of functional design & user story inputs and activities as the SI	R	A
Provide high level user stories required for full functionality	R	A
Provide detailed and documented business requirements per user story	R	A
Validate and approve business rules and compliance regulations (dates, work types, response times, follow-up)	C	A/R
Validate and approve detailed reporting requirements (PSC requirements, Annual Reporting, Leak Reporting)	C	A/R
Validate and approve detailed as-is process documentation around all functional business requirements as needed	C	A/R
Technical Design & Build		
Facilitate, coordinate, and track technical design & build activities as the SI	R	A

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Statement Of Work - TCS **Contract No 157776**

Work Description	Service Provider Team	Company Team
Development of application technical designs and functionality to support requirements per the Requirements Matrix and user stories developed in the agile process for the following applications (vendor systems): a. AMR Data Collection b. MV90 Data Collection c. AMF Data Collection and Head End d. Meter Data Management e. Retail Settlement f. Wholesale Settlement g. Meter Testing	C	A/R
Development of application technical designs and functionality to support requirements per the Requirements Matrix and user stories developed in the agile process for the following applications: a. Load Profiling & Forecasting	R	A/C
Development of integration technical designs and functionality to support requirements per the Requirements Matrix and user stories developed in the agile process.	R	A/C
Development of a third-party meter deployment tracking application, designed to interface with Company systems to support back-office provisioning of meters within different systems.	R	A/C
Testing		
Unit Testing (as part of the agile process)	R	A/C
Prepare Unit Test Cases	R	A/C
Prepare Development Data	R	A/C
Perform Unit Tests	R	A/C
Perform System Demos	R	A/C
Accept System Demos	C	A/R
System Integration Testing (SIT)		
Prepare SIT Test Cases	R	A/C
Prepare SIT Test Data	R	A/C
Perform SIT	R	A/C
User Acceptance Testing		
Prepare UAT Cases	R	A/C
Prepare UAT Test Data	R	A/C
Coordinate UAT execution	R	A/C
Perform UAT	C	A/R
Performance Testing		
Prepare Performance Test Script	R	A/C
Prepare Performance Test Data	R	A/C
Execute Performance Test Script	R	A/C
Defect Fix		
Facilitate, coordinate, and track defect fix activities as the SI	R	A
Defect fix of application defects for the following applications: a. AMR Data Collection b. AMF Data Collection and Head End c. Meter Data Management d. Retail Settlement e. Wholesale Settlement f. Meter Testing	C	A/R
Defect fix of application defects for the following applications: a. Load Profiling & Forecasting	R	A/C

Redacted

Statement Of Work - TCS **Contract No 157776**

Work Description	Service Provider Team	Company Team
Defect fix of interface defects	R	A/C
Data Migration		
Design of data migration strategy (Example: Configuration – Manual / Scripted Load, Operational – ETL, Historical – ETL)	R	A/C
Facilitate, coordinate, and track data migration activities as the overall SI	R	A
Identify Business Mapping Components (Logical Entities) and attributes to be migrated	R	A/C
Design data mapping, data quality assessment rules and Reconciliation & Verification rules	R	A/C
Review and accept data migration outputs	R	R/A
Define Data quality metrics and Acceptance Criteria	R	R/A
Data Analysis	R	A/C
Incorporate inputs and develop data mapping documents	R	A/C
Review and Sign-off Data Mapping documents	C	A/R
Verification of Mapping Rules	A	R
Definition of Audit/Verification Criteria	R	A
Data Quality Analysis and Populate Data Cleansing Catalog	R	A
Manual Data Cleansing / Correction in source system (not conducted in a data transform)	C	A/R
Design of source data extractions	C	A/R
Provide initial and continuing inputs on source data extraction designs	R	A/C
Design/Development and implementation/run of data transformation programs/elements	R	A/C
Design/Development and implementation of data loads into the following target systems: b. AMR Data Collection c. AMF Data Collection and Head End d. Meter Data Management e. Retail Settlement f. Wholesale Settlement g. Meter Testing	C	A/R
Design/Development and implementation of data loads into the following target systems: a. Load Profiling & Forecasting	R	A/C
Data Migration Testing Activities (Mock Conversion)		
Facilitate, coordinate, and track mock data conversion activities as the overall SI	R	A/C
Prepare Mock Conversion scripts	R	A/C
Perform Mock Data Extract from actual systems	C	A/R
Perform simulated Mock Data Extracts (from flat files)	R	A/C
Perform Mock Transforms	R	A/C
Perform Mock Loads into the following systems a. AMR Data Collection b. AMF Data Collection and Head End c. Meter Data Management d. Retail Settlement e. Wholesale Settlement f. Meter Testing	C	A/R
Perform Mock Loads into the following systems a. Load Profiling & Forecasting	R	A/C
Technical validation of data	R	A/C
Business validation of data	C	A/R
Deployment & Hypercare		
Prepare Test Result Documents & Readiness for Cutover	R	A/C
Review and Approve Test Result, and Accept Production for Cutover	I	A/R
Implement Cutover Dress Rehearsals	R	A/C
Cutover Migration Implementation	R	A/C

Redacted

Work Description	Service Provider Team	Company Team
Post-Migration Activities	R	A/C
System Hypercare	R	A/C

Approach & Timeline

Based on the analysis of the Requirements Matrix and Estimate Model, Service Provider has defined an implementation plan to meet the critical milestones of the TSA-Ext and AMF Program. This plan includes PI Pre-Planning, Backlog Refinement, and Vendor Contract Support, followed by 15 PIs supporting 6 releases, plus a pre-release supporting AMF network deployment. This plan will be further refined during the PI Pre-Planning phase, where the backlog will be groomed, and specific Epics will be aligned to the 15 PIs. This plan is shown in Figure 3.

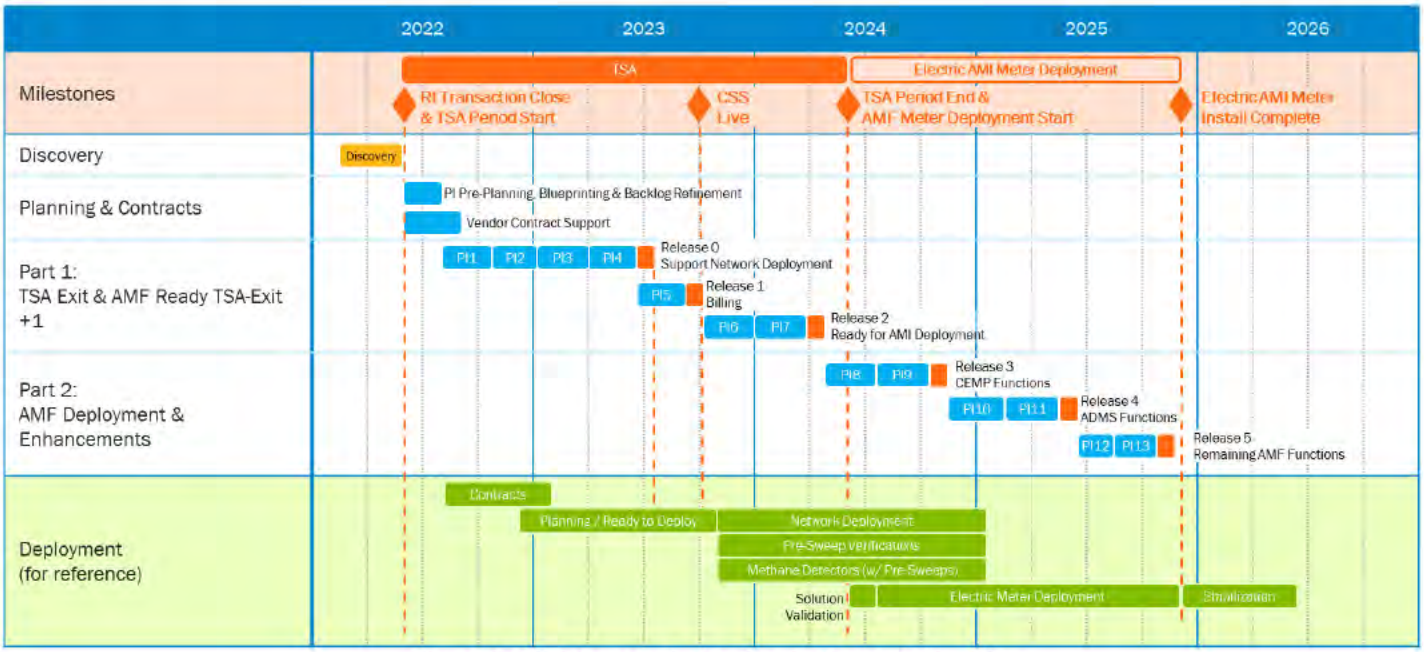

Figure 3: AMF Program Indicative Implementation Plan

The Agile Development, Testing, and Releases will be primarily organized around 12-week Program Increments (PIs). Each PI starts with a 2-week Innovation & Planning period, followed by five 2-week Sprints, to accomplish key Sprint Objectives. A typical PI calendar is shown in Figure 4.

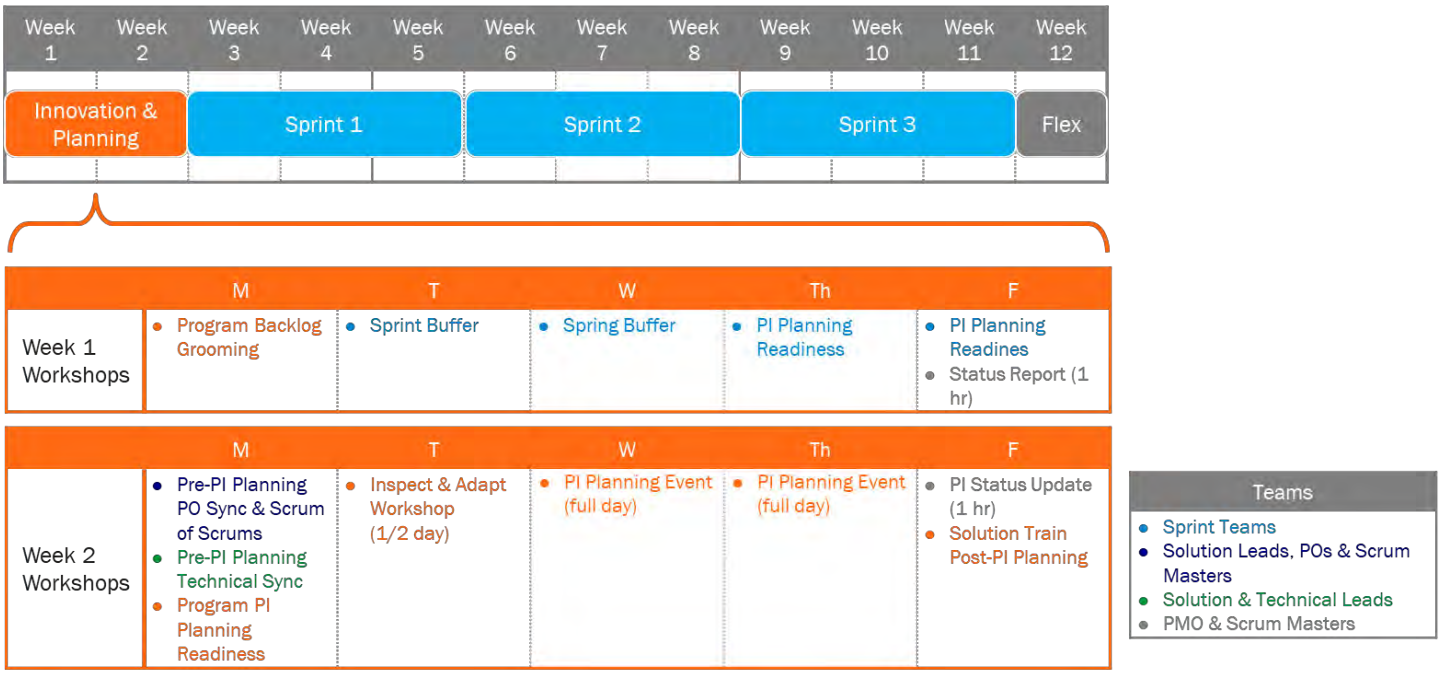

Figure 4: Example Program Increment (PI) Calendar, with Innovation & Planning Event Calendar

The Inspect and Adapt (I&A) is a significant event, held at the end of each Program Increment (PI), where the current state of the Solution is demonstrated and evaluated by the extended team. Teams then reflect and identify improvement backlog items via a structured, problem-solving workshop.

- PI System Demo
- Quantitative and qualitative measurement Retrospective and problem-solving workshop

Participants in the I&A should be, wherever possible, all the people involved in building the solution. These include for an ART:

- The Agile teams Release Train Engineer (RTE)
- System and Solution Architects/Engineering
- Product Management, Business Owners, and others on the train.

Program Increment (PI) Planning is a cadence-based, face-to-face event that serves as the heartbeat of the Agile Release Train (ART), aligning all the teams on the ART to a shared mission and Vision.
Inputs to PI planning include:

- Business context
- Roadmap and vision
- Top 10 Features of the Program Backlog

A successful PI planning event delivers two primary outputs:

- Committed PI objectives – A set of SMART objectives that are created by each team with the business value assigned by the Business Owners.
- Program board – Highlighting the new feature delivery dates, feature dependencies among teams and relevant Milestones.

The two-week Sprints are typically organized into groups of sessions as shown in Figure 5. Daily activities are typically broken into two groups of key activities with the onshore and offshore teams, including an overlap period, as shown in Figure 6.

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	M	T	W	Th	F
Meetings	• Daily Stand-up	• PO Sync & Scrum of Scrums (1 hr) • Daily Stand-up (30 mins)	• Technical Sync (1 hr) • Daily Stand-up (30 mins)	• PO Sync & Scrum of Scrums (1 hr) • Daily Stand-up (30 mins)	• Technical Sync (1 hr) • Plan of the Week (1 hr) • Status Report (1 hr)
Workshops	• Sprint Planning • Sprint Plan Review				

Teams
• Sprint Teams
• Solution Leads, POs & Scrum Masters
• Solution & Technical Leads
• PMO & Scrum Masters

	M	T	W	Th	F
Meetings	• Daily Stand-up	• PO Sync & Scrum of Scrums (1 hr) • Daily Stand-up (30 mins)	• Technical Sync (1 hr) • Daily Stand-up (30 mins)	• Daily Stand-up (30 mins)	• Status Report (1 hr)
Workshops				• Sprint Demo • Backlog Grooming	• Sprint Retrospective • PI Plan Review

Figure 5: Example Sprint Calendar

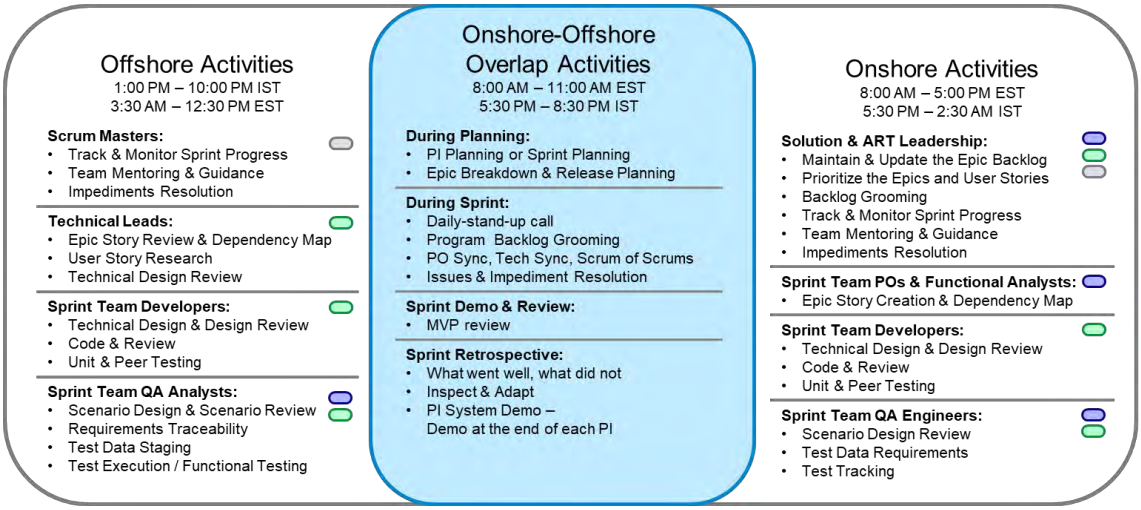

Figure 6: Example Sprint Team Activities

Organization

As the System Integrator (SI), Company expects Service Provider to deliver and be responsible for delivering AMI/AMF features and interfaces to include design, build, test and activation. Company and Service Provider will jointly manage the interdependencies between different teams and vendors performing work related to the AMF Program. Service Provider will facilitate the implementation using the Service Provider's Location Independent Agile™ (LIA) process.

To support the Service Provider's LIA process, the program will be organized into Sprint Teams aligned to each major functional requirement group, likely with Epics developed along those groups.

- Each Sprint Team includes a Company Product Owner (PO), a Service Provider or vendor technical lead, a Service Provider Scrum Master, and team members aligned to the Sprint Team. Service Provider will include a Functional Analyst to assist the PO.
- Sprint Teams will likely be created to specifically support interfaces, conversions, and potentially testing as needed.
- The Sprint Teams will be led by a Release Train Leadership Team, including a Company Release Owner, a Service Provider Release Train Engineer (RTE), and Service Provider AMF Technical Leader.
- The Release Train reports to Program (Solution Train) Leadership, which includes the Company Solution Owner & Sponsor, a Company Solution Architect, and a Service Provider Solution Train Engineer (STE). It is expected that the Program Leadership team will be supported by a Company PMO to manage program level tracking, budgets, and other vendor contractual relationships.
- One duty of the Solution Train Engineer is to manage all aspects of interfaces between metering applications and non-metering applications. This includes detailed planning with each of the non-metering application teams, reporting on the

plans, high level and detailed interface design, testing activities, defect resolution, and cutover day activities. Interfaces between metering applications can be handled by the Release Train Engineer.

These teams are shown in an example organization in Figure 7. Our indicative resource plan at the time of SOW signing is included as Attachment 4 for reference purposes only.

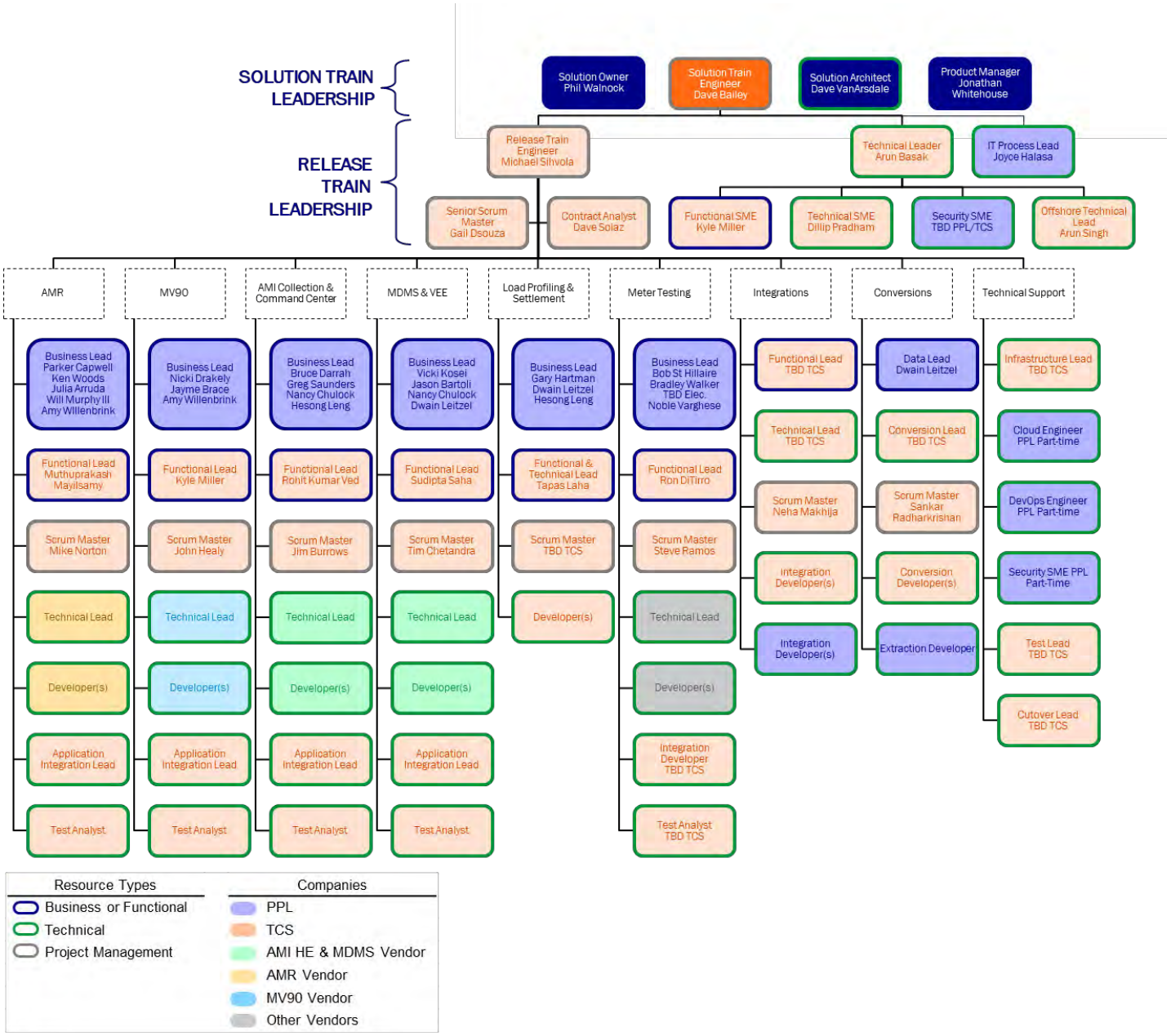

Figure 7: Expected RI Metering Program Team Organization

Governance & Escalation

The program governance will follow five levels of reporting and escalation, as depicted in Figure 8. The governance and reporting follows a progressive meeting/reporting cadence the lower each group is within the model, as annotated in Figure 8. The lowest three levels exist within the Metering Team Organization.

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Statement Of Work - TCS **Contract No 157776**

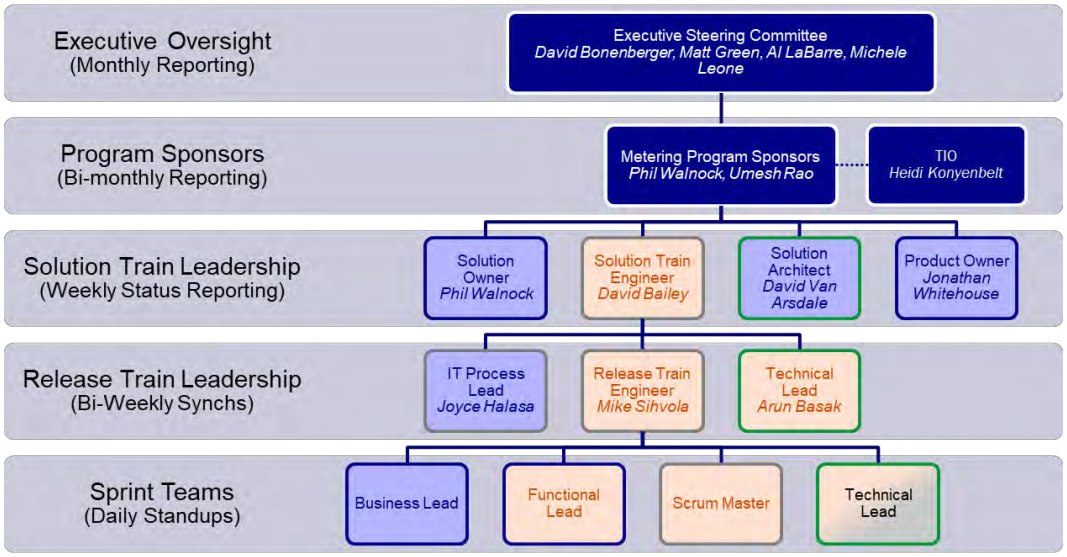

Figure 8: Expected RI Metering Program Governance

The program will emphasize delegation and empowerment to handle decisions and issues at the lowest possible level. If an issue or decision is reported and escalated via writing/email, and no resolution/decision has been reached within five (5) working days, that decision will be escalated to the next level of governance. Based on the severity or timeliness of the issue/decision, Company and Service Provider can cooperatively elect to escalate the issue/decision immediately to any level of governance to obtain a timely response or decision.

Assumptions

Company and Service Provider understand there are a number of dependencies between the AMF and TSA-Exit Program and other teams' RI Electric TSA-Exit and AMF Program work. Recognizing the importance of these dependencies, the Solution Train Engineer will be primarily responsible in defining and managing these dependencies. It is important to create clear work scope boundaries between the various parties performing work for PPL Electric Utility and its operating units. To this point, Company will work with Service Provider to clearly define User Stories and Feature items within the Requirements Matrix and software vendor Statements of Work. When in doubt or as competing stories arise, Solution Train Engineer will work with Company to determine which backlog the items falls on, keeping in mind the overall strategic roadmap and what is truly MVP for the RI AMF Program in making this assessment and decision. Any such changes that affect the Requirements Matrix shall go through the change management process and backlog shall be groomed to match the available capacity, or a change will be executed to increase capacity. Company will ensure the support of the other project teams and vendors to support the TSA-Exit and AMF Program scope, schedule, and dependencies.

Key assumptions around this include:

- The Customer Service System (CSS) and MDMS will go-live on the same, synchronized release schedule.
- The CSS will go-live 18 months after transaction close and include functionality to support both AMR and AMI/AMF billing.
- AMF systems will be modeled off the current PA structure and functions as much as possible.
- The release strategy has been split into six functional groups, two aligned with the TSA-Exit period.
- The AMR reading, collection, and head end will be performed by software and devices from an AMR Provider (currently identified as IFS Fieldnet) with integration work done by SI.
- MV90 meter reading will be provided by MV90 vendor with integration work done by Service Provider.
- The cloud based MDMS will be provided by an AMF HE & MDMS Provider (currently identified as L+G cloud based HE & MDMS), following the PA model, including sending AMR reads through the MDMS, and running VEE in the MDMS, with Service Provider responsible for all integrations/interfaces.
- Retail & wholesale settlement will follow the PA model, use the MDMS for retail settlement, and a Wholesale Settlement provider (currently identified as Hartigen) for wholesale settlement, and with Service Provider being responsible for integrations.
- Load profiles & forecasts will be generated using the MetrixIDR and/or MetrixLT system, and sent to the MDMS and Wholesale Settlement systems for settlement functions.

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- Ongoing meter installation, replacement, and meter testing will be governed by the Infor work management system. New AMF meter deployment will be managed separately from Infor.
- Meter testing results will be generated by a Meter Test Provider's system (currently identified Radian's WattNet Plus systems with Sonic 9 provers for gas meter testing), and stored in Infor; with all integrations to be implemented by the Service Provider.
- Requisite application environments will be secured for beginning the agile implementation phase.
- Access to Company SMEs from both business and IT.
- Access to National Grid personnel for clarification and source data access.
- Service Provider will be responsible to coordinate primary user (RIE) knowledge transfer and awareness to operate the metering solutions upon TSA exit. This excludes RF AMF functionality. Knowledge transfer to business personnel is assumed to occur with (a) the involvement of business product owners through the agile design & build process and (b) involvement of business product owners and SMEs in test execution.

General Assumptions:

- Work requirement involvement of Company and 3rd parties will be primarily done during customary Pennsylvania business hours.
- All prices and rates quoted in this proposal are in USD and are exclusive of any taxes.
- Service Provider assumes that Company will provision all the necessary required accesses, seating office space and laptops for Service Provider associates working from Company locations during the term of the engagement.
- Company is also expected to provide laptop and badges to Service Provider onsite staff as required. Service Provider shall provide standard infrastructure at offshore.
- Travel / accommodation related expenses that arise due to travel from agreed base location of the project or service to a new location, approved in advance by the Company, and will be charged at actual cost incurred. Such expenses will be billed to Company as per Company's travel policy.
- Service Provider has proposed to leverage the existing Company's tools and software licenses for all described Services.
- Company will provide all the Infrastructure/Environment as per Company & Service Provider mutually agreed plan
- All the interfaces will be developed with Micronaut as middleware or approved alternative & Service Provider responsibility will be to develop interfaces coming in or going out of Micronaut and as defined elsewhere in this SOW.
- Any significant schedule/effort impact due to dependency on inflight projects like the CSS implementation, ADMS implementation, or other RI TSA-Exit related scope will be assessed and taken up through change order.
- Service Provider will be responsible for resolving Severity 1 and 2 level defects continually throughout the entire engagement. Post production support (issue analysis and defect resolution) for each of the R1-R5 deployment is required for each Key Business Milestone, and the support for the releases will be done by the current support team.

Data Migration Assumptions:

- Data migration includes master data, open transactions, and two years or fewer of meter reading history form the source systems.
- ETL Tool and associated licenses for DM developments, Staging Databases will be supported by Company.
- Manual data cleansing if any required will be performed by Company Business/NG Business in source system in accordance with the agreed schedule. Data Cleansing that can be accomplished with well defined rules will be coded and executed by Service Provider through the transformation process.
- Data mapping will be the joint responsibility from Service Provider and Company.

Testing Assumptions

- Performance Testing (predominantly in Release 1 and 2) performed for up to 5 prioritized business scenarios for each release, appropriate to ensure all software functions at anticipated loads.
- Testing Tools required for performing testing will be provided by the Company.
- Defects management will follow a common definition of severity across the program, as defined in Table 4 below.
- A defect is any mis-operation of the software in meeting a requirement, a missed requirement, a obvious error when interacting with the UI, a API not operating as documented, or use of the software that causes a application or interface to fail, hang, or crash.

Table 4: Definitions of defect severity.

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Work Description	Service Provider Team
Severity 1 – Critical	The System will not run or cannot be used in Production, or SOW requirement not met Generally reserved for fatal errors that mean that testing cannot continue without fix, and/or Company is unable to use the application for ongoing operations. Must be fixed before go-live. Defects found after go-live must be resolved before System Acceptance.
Severity 2 - High	A significant portion of the System or SOW requirement is non-functional; impairs but does not prevent Company use of the System in Production. Used when there is a problem that means that testing can continue using difficult workarounds, and/or significantly impacts Company ability to use the application. Must be fixed before go-live. Defects found after go-live must be resolved before System Acceptance.
Medium	A minor portion of the System is non-functional. Does not significantly impair Company use of the System in Production. Used when there is a problem that means that testing can continue with relatively straightforward workarounds, and/or has a minor impact on Company ability to use the application. Company and Service Provider jointly determine if must be fixed before go-live.
Low	Cosmetic faults (e.g., documentation, screen layout). Used to highlight minor Defects that do not impact Company ability to use the application. Will be fixed post go-live.
Enhancement	Does not include SOW requirements that are not met. Used for Defects that when reviewed by Service Provider subject expert (e.g., Designer), it is determined the application functions as designed and the Defect can be considered for a change in scope.

Out of scope:

- Business validation of data.
- Any regression testing of solutions after software patching post go-live (vendor enhancement patches, security, OS upgrades, etc.)
- Escalated issue resolution related to third party provided applications. This refers to issues that are escalated beyond the normal process of issue management and resolution that is facilitated by the Service Provider.
- Integration of any applications other than those listed in the SOW, software vendor Statements of Work, or Requirements Matrix (Attachment 1).
- Modifications of enhancements to any peripheral systems like CSS, ADMS, etc.
- Data cleansing except where business rules are available, manual data cleansing is not in scope.
- Technical training (training of developers on interface development, customizations, reports involving development / which cannot be done using configurations provided by the products) is out of scope.
- Direct purchase of equipment or materials by the Service Provider is out of scope. All purchases and receipts of equipment or materials are to be conducted by the Company. Service Provider will assist in verifying receipt of equipment as directed by the Company, but Company remains responsible.
- Any activity not mentioned under the scope of this SOW or software vendor Statements of Work.

3. Service Provider Contract Manager, Key Personnel and Service Provider's Affiliates

(a) Service Provider will not remove existing project staff without written approval from Company. Parties fully recognize continuity of staff is essential to project success.

(b) The Service Provider Contract Manager shall be:
Name: Jitendra Dubey
Email address: jitendra.dubey@tcs.com

(c) The Key Personnel shall be for the following key positions

Role	Name	Location
Engagement Partner & Solution Train Engineer	David Bailey	Onshore

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Engagement Director & Release Train Engineer	Michael Sihvola	Onshore
Technical Lead & Solution Architect	Arunangshu Basak	Onshore
Offshore Technical Lead	Arun Singh	Offshore
Senior Scrum Master	Gail D'Souza	Onshore
Team 1 AMR – Functional Lead	Muthuprakash Mayilsamy	Offshore
Team 1 AMR – Scrum Master	Incumbent Resource	Onshore
Team 2 MV90 – Functional Lead	Incumbent Resource	Onshore
Team 2 MV90 – Scrum Master	John Healy	Onshore
Team 3 AMI CC – Functional Lead	Rohit Kumar Ved	Offshore
Team 3 AMI CC – Scrum Master	Incumbent Resource	Onshore
Team 4 MDMS+VEE – Functional Lead	Sudipta Saha	Offshore
Team 4 MDMS+VEE – Scrum Master	Incumbent Resource	Onshore
Team 5 Load Profiling and Settlement – Functional Lead	Tapas Laha	Offshore
Team 5 Load Profiling and Settlement – Scrum Master	Shyam Srinivas	Offshore
Team 6 Meter Test – Functional Lead	Incumbent Resource	Onshore
Team 6 Meter Test – Scrum Master	Incumbent Resource	Onshore
Integrations Lead	Neha Makhija	Offshore
Infrastructure Lead	TBD	Offshore
Conversion Lead	Arunesh Kumar Singh	Offshore
Test Lead	Sonal Kuman	Offshore

4. Schedule. The schedule for the Services to be performed by Service Provider under this Statement of Work are as follows:

The schedule for the Services to be performed by Service Provider under this Statement of Work assumes a September 1, 2022, start for Program Increment 1, and has activities through December 31, 2025. The schedule is included as Attachment 3.

5. Key Deliverables. The Deliverables required under this Statement of Work, along with an indicative description of the Deliverables/Scope and completion date, are described below. As part of the Innovation & Planning Sprint for each Program Increment, the Service Provider and Company will agree on the Program Increment Acceptance Criteria. For Program Increment Milestones, completion of that Acceptance Criteria will constitute the "definition of done" for each PI and used to determine the completion of the PI milestone, along with resolving Severity 1 and 2 defects identified in any previous Program Increment milestones.

Line Item	Indicative Description of Deliverables/Scope	Completion Date
1.	Program Increment 1 (PI) Acceptance Criteria, Project Mobilization and SOWs for Itron, Hartigen, Landys+Gyr, and Radian complete and ready for Company signature.	September 29, 2022
2.	Program 1 Completion Report and Vendors SOWs - Complete a mutually agreed interface Design between MDMS, MV90, and AMR systems	October 21, 2022

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Statement Of Work - TCS **Contract No 157776**

Line Item	Indicative Description of Deliverables/Scope	Completion Date
	- Complete a mutually agreed interface development and delivery plan including detailed design for all data exchanges between a metering application and non-metering systems like CSS, Infor, OSI PI, Gas Wholesale Settlement, Customer Portal, ADMS, OMS, etc.) - Completion of FERC and SOX compliance assessment for each software application/system. - Vendor SOWs are ready for signature, including SonicNine and InvisiConnect.	
3.	Program Increment Acceptance Criteria	November 4, 2022
4.	Program Increment 2 Completion Report - CSS to MDMS Master Data Synchronization designed and ready to test (full/incremental/daily/weekly/standard DSE/Custom DSE) - FieldNet drive by/walk by/optical probe Infrastructure ready for initial test with Elec/Gas meters - Complete a mutually agreed interface Design for MDMS, Wholesale Settlement System, Load Profiling system, Meter Test systems. - Data conversion design for R1 completed	January 6, 2023
5.	Program Increment 3 Acceptance Criteria	January 20, 2023
6.	Program Increment 3 Completion Report - Meter Testing system to Asset Management system (INFOR) Data exchange ready to test - High level Integrated R1 “Cutover Plan” documentation including process to move MV90 meters from NG/RI MV90 to PPL/RIE MV90, and agreement with Infrastructure Team, Cellular/Telecom provider and NG - MV90 Comm Infrastructure ready for initial test with MV90 Gas meter (IP/VPN) - MV90 Comm Infrastructure ready for initial test with MV90 Electric meter (IP/VPN, T1/POTS) - First “one route” shadow test of actual RI meter reads via FieldNet drive by. - First “one route” shadow test of actual RI meter reads via FieldNet walk by. - First “one route” shadow test of actual RI meters reads via FieldNet walk by that includes at least one interval data meter rad via probe. - Integrate First WECO electric meter test board at RI Electric Meter Shop with Radian WNP - Integrate First Sonic9 Gas Prover at RI Gas Meter Shop with Radian WNP - MDMS successfully produces interval data for monthly customers for use by Retail Settlement processes	March 31, 2023
7.	Program Increment 4 (PI) Acceptance Criteria	April 14, 2023
8.	Program Increment 4 Completion Report (Readiness for System Integrated Test) - First run of Retail Settlement involving at least 5 customers	June 23, 2023

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Statement Of Work - TCS **Contract No 157776**

Line Item	Indicative Description of Deliverables/Scope	Completion Date
	in each Rate Class - First run of Wholesale Settlement for 5% customers - First Run of Planning Forecasting with 10% accounts - Data conversion design and development completed for R1 and ready to test - Detail Integrated R1 "Cutover Plan" for Data, Meter Hardware - AMF HE developed and ready to deploy network devices	
9.	Program Increment 5 (PI) Acceptance Criteria	July 7, 2023
10.	Program Increment 5 Completion Report	September 1, 2023
11.	Final Test Completion Report, Ready for Release 1 - End to End functional test of CSS-MDMS-FieldNet Integrations for Billing data request and response (Gas and Electric meters) - End to End functional test of CSS-MDMS-MV90 Integrations for Billing data request and response (Gas and Electric meters) - End to End Meter Asset Integration Test (starting from receipt of asset, Test and passing the results to Infor) - End to end integration from Infor-Radian WNP-Sonic9 for a Gas Meter test execution - End to end integration from Infor-Radian WNP for an Electric Meter test execution - End to end functional test of Metrix IDR-MDMS for a Retail Settlement Run - End to end functional test for a Wholesale Settlement Run with Hartigen	September 1, 2023
12.	Final Mock Conversion Report, Ready for Release 1	August 18, 2023
13.	**Release 1 Implementation Summary for "TSA Exit Complete" Release**	October 13, 2023
14.	Program Increment 6 (PI) Acceptance Criteria	October 13, 2023
15.	Program Increment 6 Completion Report - Complete Design and testing of RCD - AMF Infrastructure ready for initial test with AMF Electric meter - Integrate WECO electric meter test board at RI Electric Meter Shop with Radian WNP for AMF Electric meter	December 15, 2023
16.	Program Increment 7 (PI) Acceptance Criteria	January 12, 2024
17.	Program Increment 7 Completion Report	March 22, 2024
18.	Final Test Completion Report, Ready for Release 2 - End to End functional test of CSS-MDMS-AMF HE Integrations for Billing data request and response (Gas and Electric meters) - End to End Meter Asset Integration Test (starting from receipt of asset, Test and passing the results to Infor) for AMF Electric Meters	March 22, 2024

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Statement Of Work - TCS **Contract No 157776**

Line Item	Indicative Description of Deliverables/Scope	Completion Date
	- End to End functional test for remote meter operations, Alarms and Events	
19.	**Release 2 – Implementation Summary for "Ready for AMF Meter Deployment" Release**	May 3, 2023
20.	Program Increment 8 (PI) Acceptance Criteria	May 10, 2024
21.	Program Increment 8 Completion Report - Design and initial build for functions described under Milestone 14, Release 3.	June 18, 2024
22.	Program Increment 9 (PI) Acceptance Criteria	August 2, 2024
23.	Program Increment 9 Completion Report - Final build and integrated test for functions as described under Milestone 1, Release 3.	October 11, 2024
24.	Final Test Completion Report, Ready for Release 3	October 11, 2024
25.	**Release 3 Implementation Summary for "Customer Functionality" Release**	November 21, 2024
26.	Program Increment 10 (PI) Acceptance Criteria	December 6, 2024
27.	Program Increment 10 Completion Report - Design and initial build for functions described under Milestone 17, Release 4	February 14, 2025
28.	Program Increment 11 (PI) Acceptance Criteria	February 28, 2025
29.	Program Increment 11 Completion Report	May 9, 2025
30.	Final Test Completion Report, Ready for Release 4 - Final build and integrated test for functions as described under Milestone 17, Release 4.	May 9, 2025
31.	**Release 4 Implementation Summary for "ADMS/OMS Functionality" Release**	June 20, 2025
32.	Program Increment 12 (PI) Acceptance Criteria	June 27, 2025
33.	Program Increment 12 Completion Report - Design and initial build for functions described under Milestone 20, Release 5	August 22, 2025
34.	Program Increment 13 (PI) Acceptance Criteria	September 5, 2025
35.	Program Increment 13 Completion Report	October 31, 2025
36.	Final Test Completion Report, Ready for Release 4 - Final build and integrated test for functions as described under Milestone 20, Release 5.	October 31, 2025
37.	**Release 5 Implementation Summary for "Advanced Functions Release" & Final System Acceptance**	December 1, 2025
38.	**Program Acceptance Complete – Key Business Milestone**	December 31, 2025

6. Milestones.

Most milestones are largely related to the completion of and acceptance of identified Deliverables/Scope.

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Statement Of Work - TCS **Contract No 157776**

Milestones for Releases 1-5 (aka Groups 1-5) and Program Acceptance are considered **Key Business Milestones** and handled differently than other Program Increment Milestones. Payment of **Key Business Milestones** will be dependent on completing the Release functionality and resolving Severity 1 and 2 defects per the Requirements Matrix, and aligned with the RACI in Table 3 (see details below). Delays in **Key Business Milestones** attributed non-metering application readiness will not delay the Key Business Milestone payment by more than 90 days, but the Release functionality (unchanged) will still need to be completed without additional costs.

Key assumptions include:

- Completion of any milestone functionality assumes completion of activities in this SOW, and per System Integrator RACI in Table 3.

Milestone	Due Date (or Target Date)
1. Mobilization and Vendor SOWs – Key Business Milestone Due at signature of this SOW and vendor contracts for Itron, Hartigen, Landys+Gyr, and Radian ready for signature.	September 29, 2022
2. Completion of PI1 and Vendor SOWs – Key Business Milestone - Acceptance of Deliverable/Scope items 1 and 2, and vendor contracts for Itron, Hartigen, Landys+Gyr, Radian, InvisiConnect, and SonicNine ready for signature.	October 21, 2022
3. Completion of PI2 - Acceptance of Deliverable 3 and 4	January 6, 2023
4. Completion of PI3 - Acceptance of Deliverable/Scope items 5 and 6	March 31, 2023
5. Completion of PI4, Ready for System Integrated Test - Acceptance of Deliverable/Scope items 7 and 8	June 23, 2023
6. Completion of PI5 and System Integrated Test - Acceptance of Deliverable/Scope items 9, 10 and 11	September 1, 2023
7. Ready for Network Deployment (Release 0) - AMF HE up and ready to communicate with field deployed meter network devices.	August 10, 2023
8. Release 1 TSA Exit Deployment - **Key Business Milestone** - All TSA exit functions (i.e. Walk by, Drive by & MV90 Meter reading and Billing, Retail and Wholesale Management, Load Profiling and Forecasting, Electric & Gas Meter Testing) live in Production and working with all Severity 1 and 2 defects resolved per the Requirements Matrix and aligned with the RACI in Table 3 for the 30 consecutive days following Release go-live. - Acceptance of Deliverable/Scope 12 and 13	Target Date: October 1, 2023
9. Completion of PI6 - Acceptance of Deliverables/Scope 14 and 15	December 15, 2023
10. Completion of PI7 - Acceptance of Deliverables 16 and 17	March 22, 2024

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Statement Of Work - TCS **Contract No 157776**

Milestone	Due Date (or Target Date)
11. Release 2 Ready to Deploy AMF Meters - **Key Business Milestone** - AMF Electric Meter Reading & Billing, Remote Connect Disconnect, Customer Portal, Data Driven Operations, Proactive Outage Management (Last Gasp/Power Ups) - Meter Deployment Management Solution implemented, tested and ready for production use for AMF. - All functionality live in Production and working with all Severity 1 and 2 defects resolved per the Requirements Matrix and aligned with the RACI in Table 3 for the 30 consecutive days following Release go-live. - Acceptance of Deliverable/Scope items 18 and 19	Target Date: April 28, 2024
12. Completion of PI8 - Acceptance of Deliverable/Scope items 20 and 21	July 18, 2024
13. Completion of PI9 - Acceptance of Deliverable/Scope items 22 and 23	October 11, 2024
14. Release 3 Deployment - **Key Business Milestone** - Green Button Connect, Bill Alerts, Mobile App, Customer Data Access, IHD Device - All functionality live in Production and working with all Severity 1 and 2 defects resolved per the Requirements Matrix and aligned with the RACI in Table 3 for the 30 consecutive days following Release go-live. - Acceptance of Deliverable/Scope items 24 and 25	Target Date: November 17, 2024
15. Completion of PI10 - Acceptance of Deliverable/Scope items 26 and 27	February 14, 2025
16. Completion of PI11 - Acceptance of Deliverable/Scope items 28 and 29	May 9, 2025
17. Release 4 Deployment - **Key Business Milestone** - Data/integration to support ADMS voltage optimization, voltage automatic notifications, and other network analysis - All functionality live in Production and working with all Severity 1 and 2 defects are resolved per the Requirements Matrix and aligned with the RACI in Table 3 for the 30 consecutive days following Release go-live. - Acceptance of Deliverable/Scope items 30 and 31	Target Date: June 15, 2025
18. Completion of PI12 - Acceptance of Deliverable/Scope items 32 and 33	August 22, 2025
19. Completion of PI13 - Acceptance of Deliverable/Scope items 34 and 35	October 31, 2025
20. Release 5 Deployment – **Key Business Milestone** - Data/integration to support DG Portal, Carbon Footprint Calculator and Multi-family portfolio view - All functionality live in Production and working with all Severity 1 and 2 defects are resolved per the Requirements Matrix and aligned with the RACI in Table 3 for the 30 consecutive days following Release go-live. - Acceptance of Deliverable/Scope items 36 and 37	Target Date: December 14, 2025

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Milestone	Due Date (or Target Date)
21. Program Acceptance – **Key Business Milestone** - Transition to Long-term care, - All Releases complete and the relevant systems/interfaces are meeting requirements per the Requirements Matrix, aligned with the RACI in Table 3, and have no Severity 1 or 2 defects for 50 consecutive days following Release go-live. - Acceptance of Deliverable/Scope items 38	Target Date: December 31, 2025

7. Pricing.

All costs listed below are based on the scope and assumptions included in this Statement of Work. The capital expenses, training & data migration expense details, TSA-Exit allocation, and RIE AMF allocation are provided for Company's internal reference only as per Company policy.

The project would be delivered in a fixed price model. The milestone tasks, the task completion dates, and the milestone values are listed below. Service Provider agrees to a firm-fixed price across milestone payment structure for the duration of the engagement. The fees and costs will be paid out exclusively in the form of a Milestone payment upon successful completion of milestone requirements per this SOW and Attachment 1. Service Provider will be required to submit the request of milestone completion to invoice in accordance with the agreed upon milestone schedule with supporting details via email to the Company. Supporting details should include overview of work performed for each milestone with associated costs.

A milestone payment shall occur at the completion of every milestone. At each of these milestones, Company has five (5) business days to provide either:

- Written notification of acceptance of the work delivered in previous phase, or…
- Written notification and explanation of why the work delivered in previous phase is not accepted

If Company does not provide either notification within five (5) business days or provides notification that the previous phase is not accepted, Company and Service Provider will follow the escalation process defined within this SOW to mediate the issue. Once written acceptance has been received, Service Provider will issue a milestone payment invoice in the amount indicated in the payment table below.

Item	Allocation for TSA-Exit	Allocation for RIE AMF	Price [per unit/[OTHER]]	[Cost Structure]
1. Mobilization and 4 vendor SOWs	[redacted]		[redacted]	Fixed Fee
2. Completion of PI1 and 2 additional vendor SOWs	[redacted]		[redacted]	Fixed Fee
3. Completion of PI2	[redacted]		[redacted]	Fixed Fee
4. Completion of PI3	[redacted]		[redacted]	Fixed Fee
5. Completion of PI4, Ready for System Integrated Test	[redacted]		[redacted]	Fixed Fee
6. Completion of PI5 and System Integrated Test	[redacted]		[redacted]	Fixed Fee
7. Ready for Network Deployment (Release 0)		[redacted]	[redacted]	Fixed Fee

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Statement Of Work - TCS **Contract No 157776**

Item	Allocation for TSA-Exit	Allocation for RIE AMF	Price [per unit/[OTHER]]	[Cost Structure]
8. **Release 1 TSA Exit Deployment**	[redacted]		[redacted]	Fixed Fee*
9. Completion of PI6	[redacted]	[redacted]	[redacted]	Fixed Fee
10. Completion of PI7	[redacted]	[redacted]	[redacted]	Fixed Fee
11. Release 2 – Ready for AMF Meter Deployment	[redacted]	[redacted]	[redacted]	Fixed Fee
12. Completion of PI8		[redacted]	[redacted]	Fixed Fee
13. Completion of PI9		[redacted]	[redacted]	Fixed Fee
14. Release 3 Deployment		[redacted]	[redacted]	Fixed Fee
15. Completion of PI10		[redacted]	[redacted]	Fixed Fee
16. Completion of PI11		[redacted]	[redacted]	Fixed Fee
17. Release 4 Deployment		[redacted]	[redacted]	Fixed Fee
18. Completion of PI12		[redacted]	[redacted]	Fixed Fee
19. Completion of PI13		[redacted]	[redacted]	Fixed Fee
20. Release 5 Deployment		[redacted]	[redacted]	Fixed Fee
21. Program Acceptance, Transition to Long-term care		[redacted]	[redacted]	Fixed Fee
Total:	[redacted]	[redacted]	[redacted]	

* Training and data migration expenses for Release 1 are driven by the production data conversion activities and expected to be [redacted]

8. Term. This Statement of Work will remain in effect from September 1, 2022 to March 31, 2026, unless earlier terminated in accordance with the Agreement.

9. Payment Terms. Payment Terms shall be as agreed in the Agreement.

10. Additional Terms.

Time commitment from Company

We expect that Company Product Owners are available for all the Agile ceremonies shown below (minimum hours required are given below) with exceptions for holidays, vacations, sickness, required PPL meeting conflicts, other project work related to the scope of this SOW, a reasonable number of personal conflicts, etc. To provide coverage Company is providing multiple Product Owners and heavily involved IT staff.

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Table 4 shows the minimum time commitment needed from Company and Service Provider Teams for Agile ceremonies.

Table 4: Agile implementation minimum time commitments

Agile Ceremony	Time Box	Frequency
PI Planning	2 days x	Once every PI
Program Backlog grooming	1 hour	once a week or till the backlogs are refined
Team Backlog grooming	1 hour	Twice a week or till the backlogs are refined
Sprint Planning	4 hours x	Once every Sprint (2 weeks)
PO Sync/ Scrum of Scrums	1 hour x	Twice every week
Daily Scrum	15 mins x	Everyday
Iteration demo	2 hours x	2 Hours every Sprint (2 weeks)
Iteration retrospection	1-hour x	Once every Iteration
PI retrospection	1-hour x	Once every PI
PI System demo	2 hours x	On-demand (at least once every PI)

Adherence to Agile Ceremonies

- Participate in PI planning conducted by product owner and identify dependencies & risk with workstreams
- Carry out sprint planning at the beginning of each sprint
- Clearly list Definition of Done
- Service Provider will be participating in backlog grooming activity while the same will be owned by Company Product Owner. As an output of this activity, Service Provider expects groomed user stories prioritized by the Product Owner
- Before the start of every Sprint planning, user stories worth 2 times the actual average sprint velocity need to be ready which meets the Definition of Ready Criteria.
- Perform daily stand-ups involving the scrum team
- Manage user stories Company Azure DevOps
- Track user stories via corresponding tracker
- Provide Burn down chart, defect density reports and team velocity reports.
- Provide weekly status report
- Perform Iteration/Sprint review at the end of each sprint/milestone
- Perform sprint retrospective at the pre-defined intervals involving the product owner
- Perform sprint demos

[SIGNATURE PAGE FOLLOWS]

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Statement Of Work - TCS **Contract No 157776**

IN WITNESS WHEREOF, the Parties hereto have executed this Statement of Work as of the date first above written.

COMPANY:
PPL Services Corporation

By: *Stephanie R. Pryor*
Stephanie R. Pryor (Sep 29, 2022 18 51 EDT)

Name: Stephanie R. Pryor

Title: Director Indirect Procurement

Date: 09/29/2022

SERVICE PROVIDER:
Tata Consultancy Services Limited

By: *Amit Bajaj*
Amit Bajaj (Sep 29 2022 17 55 EDT)

Name: Amit Bajaj

Title: President - North America

Date: 09/29/2022

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Statement Of Work - TCS **Contract No 157776**

Software License Usage Approval Agreement

*All details required are mandatory.
for multi-location projects enter the project and Location in a separate line.

Project Name* (To be filled in by TCS)	**Project Location*** (To be filled in by TCS)	**Term of this Usage Approval Agreement*** (To be filled in by TCS / Client)	
		Start Date (09/01/2022)	**End Date** (03/31/2026)
Metering Implementation	India Offshore Location	(09/01/2022)	(03/31/2026)
Metering Implementation	US	(09/01/2022)	(03/31/2026)

PPL (hereinafter referred to as "Client") approves the use by TCS (hereafter referred to as the "VENDOR"), of the software licenses procured by Client, on a temporary basis, as detailed in Tables A & B below. The VENDOR understands and confirms that the software licenses will be used only in the execution of the above-mentioned project, including the services rendered from TCS premises, during the period mentioned and at the approved site/s. Usage of Client procured software license beyond the originally agreed upon date / location would be considered as violation of this agreement, unless otherwise approved formally by the Client. The VENDOR also accepts that any inappropriate use of the software license constitutes a violation of the Master Professional Service Agreement dated February 28th ,2022 executed by and between Vendor and the Client.

The VENDOR agrees to remove all existing installations of the software provided by the Client at VENDOR locations upon completion of this Project or end date of this agreement (as mentioned above) and undertakes to release the licenses and other additional items supplied by the Client at the end of the above period. Such removal/ release of licenses supplied by the Client shall be documented as per Table-C mentioned below. Any re-production of the software/media, unauthorized installations, transfer of license to other sites/third parties would be considered as violation of this agreement. The VENDOR undertakes responsibility to track, monitor & report at the end of each year, the usage of the Client approved Software licenses and non-conformances (if any) until they are acknowledged as 'Released / Returned by the Client as per below Table-C.

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Statement Of Work - TCS **Contract No 157776**

Table -A: Inventory of Software License Procured and Approved by Client for use by TCS										
Software Name*	**Edition (if any) ***	**Version*** (Indicate version no. if fixed else open upgrade 10.x)	**License Type** (Node-Locked, Single User, Concurrent, Floating, etc.) *	**Software Usage Location***	**Qty***	**Software Receipt Mode** (Electronic downloads / Media, etc.) *	**Whether Client's Contract/ EULA with Software Vendor allow TCS to use the Software on behalf of Client?** (Yes / No)	**Duration/ period for which Client's Contract/ EULA with Software Vendor allows TCS to use the Software on behalf of Client.**	**Geographies in which the Software usage is permitted.** (India/ Global)	**Usage Restrictions (if any) *** (If necessary, attach the applicable restrictions to this Agreement)
Citrix Receiver		Latest		TCS Workstation	All TCS associates that are part of the project	Standard PPL delivery process.	Yes		India/USA	NA
Microsoft Project				TCS Workstation	10	Standard PPL delivery process.	Yes		India/USA	NA

Table: - B: Inventory of Freeware / Shareware/ Open Source Software Approved by Client for use by TCS							
Sr. No.	**Freeware / Shareware/ Open Source Software Name***	**Edition***	**Version***	**Who is procuring/ downloading this Freeware / Shareware/ Open Source Software?** (TCS/ Client)	**Qty**	**Software Usage Location*** (To be filled in by TCS)	**Remarks (if any)**

Table: - C: Software License Release / Return							
Sr. No	**Project Identifier No#**	**Software Name**	**Software Usage Location**	**Qty**	**Uninstalled from TCS machines** (Yes / No)	**Software License Surrendered to Client** (Yes / No)	**Software Surrender Date** (DD/MM/YYYY)

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	Integration Name	Description	Source	Destination	Business Area/System	Release
IREQ-07001	Standard(AMR+AMI) Meter Read Data Request	Request meter read data for both Electric and Gas AMR meters	CSS	MDMS	Metering - AMR	R1
IREQ-07002	Standard(AMR+AMI) Meter Read Data Response	Respond with captured meter read data and events for both Electric and Gas AMR meters	MDMS/CO-SCHEMA	CSS	Metering - AMR	R1
IREQ-07003	Standard(AMR) Meter Read Data Request	Request meter read data for both Electric and Gas AMR meters	MDMS/ CO SCHEMA	AMR	Metering - AMR	R1
IREQ-07004	Standard(AMR) AMR Meter Read Data Response	Respond with captured meter read data for both Electric and Gas AMR meters	AMR	MDMS	Metering - AMR	R1
IREQ-07005	Probed AMR Interval Read Upload	Interval reads from probed meters	AMR	MV90	Metering - AMR	R1
IREQ-05001	MV90 Read upload	Interval Read Upload for MV90 meters	MV90 Elec/Gas	MDMS	Metering - MV90	R1
IREQ-05002	MV90 Gas Read upload	Gas Interval Read Upload to RI TSA	MV90	RI TSA	Metering - MV90	R2
IREQ-03001	Device Details	MV90,AMI and AMR asset details from infor	INFOR	WNP	METERING-AMI	R2
IREQ-03002	Device Test Results	Asset test results	WNP	INFOR	METERING-AMI	R2
IREQ-03003	Ping request	Ping request for meter/group of meters	OMS	AMIHE	METERING-AMI	R2
IREQ-03004	Ping request	Ping request for meter/group of meters	ADMS	AMIHE	METERING-AMI	R2
IREQ-03005	Ping response	Ping response for meter/group of meters	AMIHE	OMS	METERING-AMI	R2
IREQ-03006	Ping response	Ping response for meter/group of meters	AMIHE	ADMS	METERING-AMI	R2
IREQ-03007	RCRD Request	Remote connect/disconnect request	MDMS	AMIHE	METERING-AMI	R2
IREQ-03008	RCRD Request	Remote connect/disconnect request	CSS	MDMS	METERING-AMI	R2
IREQ-03009	RCRD response	Remote connect/disconnect response for meter/group of meters	AMIHE	MDMS	METERING-AMI	R2
IREQ-03010	RCRD response	Remote connect/disconnect response for meter/group of meters	MDMS	CSS	METERING-AMI	R2
IREQ-03011	Asset Event data	Asset Event Data(installation/Removal/Change)	CSS	AMIHE	METERING-AMI	R2
IREQ-03012	Complex Billing Meter Read request	Request interval read for Complex Billing	CSS	MDMS	METERING-AMI	R2
IREQ-03013	Complex Billing Meter Read response	Response with interval read for Complex Billing	MDMS	CSS	METERING-AMI	R2
IREQ-03014	Meter read request	Request interval read	MDMS	AMIHE	METERING-AMI	R2
IREQ-03015	Meter read results	Response with interval read	AMIHE	MDMS	METERING-AMI	R2
IREQ-03059	Special Read Request	Request for off cycle Billing, ad hoc requests	CSS	MDMS	METERING-AMI	R2
IREQ-03060	Special Read Response	Response	MDMS	CSS	METERING-AMI	R2
IREQ-03061	Supplier Switch Request	Request	CSS	MDMS	METERING-AMI	R2
IREQ-03062	Supplier Switch Response	Response	MDMS	CSS	METERING-AMI	R2
IREQ-03016	On-demand Read request	Request data for individual devices or groups of devices.	OMS	AMIHE	METERING-AMI	R2
IREQ-03017	On-demand Read Response	Response with data for individual devices or groups of devices.	AMIHE	OMS	METERING-AMI	R2
IREQ-03018	On-demand Read request	Request data for individual devices or groups of devices.	ADMS	AMIHE	METERING-AMI	R2
IREQ-03019	On-demand Read Response	Response with data for individual devices or groups of devices.	AMIHE	ADMS	METERING-AMI	R2
IREQ-03020	Service Order request	Request to create the service order for high temperature alert is received from a meter	AMIHE	CSS	METERING-AMI	R2
IREQ-03022	Meter status update	Request Meter command status update (Connected/Disconnected)	MDMS	AMIHE	METERING-AMI	R2
IREQ-03023	Meter status update	Response Meter command status update (Connected/Disconnected)	AMIHE	MDMS	METERING-AMI	R2
IREQ-03055	Meter demand reset	Demand reset request for an individual Meter/group of Meters	MDMS	AMIHE	METERING-AMI	R2
IREQ-03024	Meter demand reset	Demand reset response for an individual Meter/group of Meters	AMIHE	MDMS	METERING-AMI	R2
IREQ-03025	Restrict/broadcasting command request	To Restrict individual/ batch broadcasting command request	AMIHE	OMS	METERING-AMI	R2
IREQ-03026	Restrict/broadcasting command response	Restrict individual/ batch broadcasting command response	OMS	AMIHE	METERING-AMI	R2
IREQ-03028	Sag/swell Alerts	Send Sag/swell event	AMIHE	ADMS	METERING-AMI	R2
IREQ-03030	Power Down/Up Alerts	Send power up/down alert	AMIHE	MDMS	METERING-AMI	R2
IREQ-03033	Power Down/Up Alerts	Alerts from a meter that either power has been lost or restored	MDMS	OMS	METERING-AMI	R4
IREQ-03034	Power Down/Up Alerts	Send power up/down alert	AMIHE	ADMS	METERING-AMI	R2
IREQ-03035	Power Qaulity Data	Send Power qaulity data	AMIHE	Data Lake	METERING-AMI	R2
IREQ-03039	On Demand Read/Demand Reset	Request for on demand read and demand reset	OMS	AMIHE	METERING-AMI	R2
IREQ-03040	On Demand Read/Demand Reset	Response for on demand read and demand reset	AMIHE	OMS	METERING-AMI	R1
IREQ-03041	On Demand Read/Demand Reset	Request for on demand read and demand reset	ADMS	AMIHE	METERING-AMI	R1
IREQ-03042	On Demand Read/Demand Reset	Response for on demand read and demand reset	AMIHE	ADMS	METERING-AMI	R1
IREQ-03043	Device Configuration	Request for device/meter configuration	AMIHE	MDMS	METERING-AMI	R2
IREQ-03007	Device Configuration	Response for device/meter configuration	MDMS	AMIHE	METERING-AMI	R2
IREQ-03045	Device Configuration	Request for device/meter configuration of meter installation/removal/replacement	CSS	AMIHE	METERING-AMI	R2

IREQ-03046	Device Configuration	Request for device/meter configuration of meter installation/removal/replacement	AMIHE	CSS	METERING-AMI	R2
	Daily Maintenance of Device Configuration	Maintain Daily Master data updates in MDMS	CSS	MDMS	METERING-AMI	R2
IREQ-03047	IHD Provisioning	Helps Provision a HAN device	AMIHE	RF Bridge	METERING-AMI	R3
IREQ-03049	IHD Communication	Request to communicate to the paired IHD	Customer Portal	AMIHE	METERING-AMI	R3
IREQ-03050	IHD Communication	Response to communicate to the paired IHD	AMIHE	Customer Portal	METERING-AMI	R3
IREQ-03008	IHD Communication	Request for pairied and unpaired IHD	MDMS	AMIHE	METERING-AMI	R3
IREQ-03054	IHD Communication	Response for pairied and unpaired IHD	AMIHE	MDMS	METERING-AMI	R3
IREQ-04001	TOU/RTP Read requests	Request for TOU/RTP billing	CSS	MDMS	METERING-MDMS	R1
IREQ-04002	TOU/RTP Read responses	Response for TOU/RTP billing	MDMS	CSS	METERING-MDMS	R1
IREQ-04003	Customer Usage Data Request	Request Customer Usage data	WEB/MOBILE	MDMS	METERING-MDMS	R1
IREQ-04004	Customer Usage Data Response	Response with Customer usage data	MDMS	WEB/MOBILE	METERING-MDMS	R1
IREQ-04005	Interval Data	Hourly intervals from electric meters for Retail Settlement	MDMS	Retail Settl	METERING-MDMS	R2
IREQ-04006	Interval Data	Hourly Intervals for Tie Lines and Generators	MDMS	Wholesale Settlement	METERING-MDMS	R2
IREQ-04007	SCADA Interval Data	SCADA Hourly Intervals for Tie Lines and Generators	PIHIST	Wholesale Settlement	METERING-MDMS	R2
IREQ-04008	Billing Determinant requests	(Separate)Request for each of the billing types including(TVR, CPP, etc),	CSS	MDMS	METERING-MDMS	R3
IREQ-04009	Billing Determinant responses	(Separate)Response with bill determinanats for each of the billing types including (TVR, CPP, etc),	MDMS	CSS	METERING-MDMS	R3
IREQ-11001	Meter Read	Get validated read data (VEE'd) from MDMS for Load Profile Generation	MDMS	Load Profiling	METERING-MDMS	R2
IREQ-11001	Rate Class	Master Rate class information	CSS	Load Profiling	METERING-MDMS	R2
IREQ-11001	Load profile	Send generated profile for use in the Settlement process	Load Profiling	Retail Settl	METERING-Load Profiling	
IREQ-12001	ICAP Tags	annual ICAP tags to CSS.	MDMS	CSS	MDMS- Settlement Tag Creation	R2
IREQ-13001	Settlement A result	approved Settlement A Backcast files to the data warehouse when the backcast is approved.	Retail Settl	Data Lake	Settlement-RL	R2
IREQ-13002	Settlement B result	Hourly Supplier	Retail Settl	Data Lake	Settlement-RL	R2
IREQ-13003	Weather data	Weather Data from weather bank for using in Retail settlement	Weather bank	Retail Settl	Settlement-RL	R2
IREQ-13004	Aggregated Zonal Load	Send hourly load to the supplier level for Settlement A&B aggregations to ISO	Retail Settl	NE-ISO	Settlement-RL	R2
IREQ-13004	Aggregated Zonal Load	Aggregated Hourly zonal load	Wholesale Settlement	Retail Settl	Settlement-RL	R2
IREQ-03055	Device Inventory	List of meters in inventory	INFOR	AMIHE	METERING-AMI	R2
IREQ-14001	Aggregated Zonal Load	Aggregated Hourly zonal load to ISO	Wholesale Settlement	NE-ISO	Settlement-WS	R2
IREQ-12001	Capacity Tag Changes	Capacity tag changes to be sent to suppliers via 814C EDI	MDMS	CSS	MDMS- Settlement Tag Creation	R2
IREQ-07006	Historical Interval Usage	Historical interval usage to be sent to suppliers via 867 HIU EDI	MDMS	CSS	Metering - AMR	R1
IREQ-07007	Interval Usage	Current interval usage to be sent to suppliers via 867 IU EDI	MDMS	CSS	Metering - AMR	R1
IREQ-07008	CDI Fixed Strata	CDI Fixed Strata	MDMS	CSS	Metering - AMR	R1
IREQ-07009	No Read No Estimate WFM request	NO NO WFM Requests	CSS	MDMS	Metering - AMR	R1
IREQ-07010	No Read No Estimate WFM reqsponse	NO NO WFM Responses	MDMS	CSS	Metering - AMR	R1
IREQ-07011	Daily Maint Sync	Daily maintenance of data (Account, Meter, Premise, Supplier, Rate, Install/Removal Reads	CSS	MDMS	Metering - AMR	R1
IREQ-07012	Weekly Full Sync	Weekly full synchronization of data (Meter, Premise, Install/Removal Reads	CSS	MDMS	Metering - AMR	R1
IREQ-07013	Unmetered Accounts	Usage for unmetered accounts and street lights so MDMS can have interval usage recorded for these accounts	CSS	MDMS	Metering - AMR	R1
IREQ-07014	Billing Calendar	Bill calendar master data	CSS	MDMS	Metering - AMR	R1
IREQ-07015	Supplemental Reads	Supplemental reads	CSS	MDMS	Metering - AMR	R1
IREQ-07016	Service/Transformer Relationship	The transformer associated with each service point	CSS	MDMS	Metering - AMR	R1

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Req #	Reference #	Business Area / System	Business Requirement Description	Requirment Type
REQ-02021	MET-021	Metering - Asset & Inventory	Meter testing system shall display the results based on the user input criteria.	Report
REQ-02026	MET-026	Metering - Asset & Inventory	Meter testing system shall update the Meter Testing Dashboard with a summary of the test results upon completion of the testing of the sample group.	Report
REQ-03001	MET-037	Metering - AMI	The AMI Head End shall support collection, storage, and reporting of AMI network devices.	Report
REQ-03030	MET-065	Metering - AMI	The AMI Head End shall have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.	Report
REQ-03031	MET-066	Metering - AMI	The AMI Head End shall have the ability to run diagnostics to identify and provide reports for meters that regularly provide non billable Meter data.	Report
REQ-03042	MET-077	Metering - AMI	The AMI Head End shall have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.	Report
REQ-04003	MET-085	Metering - Meter Data Management	Pended Meter reads in MDMS shall be readily visible and manageable by MDMS Users. Synchronization with CSS will result in Pended Reads being less than 50 accounts per day.	Report
REQ-04050	MET-130	Metering - Meter Data Management	MDMS shall provide operation reports for many things including: daily 24 hour batch job processing run times/status, number/types of pended reads, changes made in syncing with CSS, accounts and their status on the monthly read 4 day window, ...)	Report
REQ-04051	MET-131	Metering - Meter Data Management	MDMS shall identify unmetered accounts by rate and whether the unmetered account type is lighting rate or non-lighting rate.	Report
REQ-04080	MET-160	Metering - Meter Data Management	The MDMS shall have the ability to report on and display manually read meters	Report
REQ-08003	MET-239	Metering - Advanced Outage System Support	The system shall have ability to manually ping a current list of single outages from OMS as a batch and then view the ping outage status results.	Report
REQ-08013	MET-249	Metering - Advanced Outage System Support	Outage Management will have the ability to create the OMS Outage Preview report from the meter read , alert and ping response data from AMI ~~and AMR meters~~.	Report
REQ-08019	MET-255	Metering - Advanced Outage System Support	The system shall have ability to Prevent the processing of outage event calls for customers that have been shut-off for non payment.	Report
REQ-09003	MET-260	Metering - Grid Service Services Support(ADMS)	The system shall be able to quickly and easily collect and display dispatched vs actual (metered) DER outputs via AMI HE on a UI.	Report
REQ-04095	MET-299	Metering - Meter Data Management	MDMS shall process and be ready with bill quality data (for both Electric and Gas) will be available after 24 hours.	Report
REQ-11015	P&F-015	Profiling & Forecasting	System shall generate a rate class profile by the following parameters: Season, Day type (weekday, weekend, holiday, etc.)	Report
REQ-11017	P&F-017	Profiling & Forecasting	System shall generate a load profile according to Owner defined frequencies (e.g. once a year, monthly, etc.)	Report
REQ-11018	P&F-018	Profiling & Forecasting	System shall generate weather sensitive load profiles using normalized weather data	Report
REQ-11025	P&F-025	Profiling & Forecasting	System shall generate load profiles for each rate and rate revenue class combination by the combination of season and date type.(i.e., Winter - Weekday, Winter - Weekend/Holiday, Summer - Weekday, Summer - Weekend/Holiday, etc)	Report
REQ-11026	P&F-026	Profiling & Forecasting	System shall make the results of the rate class load profile available to be sent to suppliers.	Report
REQ-12014	P&F-043	MDMS- Settlement Tag Creation	System shall have the ability to provide an "Accounts by rate" report from the tag calculation results	Report
REQ-12039	P&F-057	MDMS- Settlement Tag Creation	System shall generate the "Day over Day Comparison" report to identify any errors in the ICAP forecast file when the forecast is generated. The ICAP forecast file shall contain the following fields: Load type (NSPL) Zone Area Supplier Short name Scaled Tag (Mw Amount) by Supplier Short name Date	Report
REQ-11041	P&F-059	Profiling & Forecasting	System shall generate the "Forecast Five Day Look Ahead" Report each time a forecast is generated for a configurable date range (default date range = T to T+4).	Report
REQ-13009	SET-010	Settlement-RL	System shall generate a "Daily UFE History Report" with following details - - Day of the Week - Date - Total Aggregation - UFE - Total (Total Aggregation + UFE) - % UFE (% of the Total that UFE accounts for)	Report
REQ-13010	SET-011	Settlement-RL	System shall generate a five day (configurable) report of the Settlement A file with following fields - - Supplier Contract Number, - Date, - Aggregated Estimated MW for each hour (1-24) per Contract Number	Report
REQ-13015	SET-016	Settlement-RL	System shall create a Settlement B Report monthly, when the settlement B process is run	Report
REQ-13017	SET-018	Settlement-RL	System shall provide a user the ability to export the Settlement B Backcast file with following fields: - Supplier Contract Number, - Date, - Hourly Delta between submitted Settlement A and Settlement B	Report
REQ-06011	MET-344	Metering - Meter Data Management	The system shall report on the number of certified AMI meters installed (Certified Typically means x days of continuous reads received by MDMS)	Report
REQ-06014	MET-347	Metering - AMI	The total amount of AMI meters that haven't communicated any reads through last 24 hours verses total amount of AMI meters.	Report
REQ-06028	MET-361	Metering - AMI	The total amount of meters that have consumption for disconnected meter with date timestamp.	Report
REQ-06030	MET-363	Metering - Asset & Inventory	The total amount of available meters (tested and ready for installation) in inventory, the source data will be from Infor.	Report
REQ-06050	MET-383	Metering - Meter Data Management	Interval Read Performance Percent - The percentage of intervals received for meters for the previous day. Only applicable for AMI meters.	Report
REQ-06051	MET-384	Metering - Meter Data Management	The percent and count of meters in the bill group that reported at least one register read during the billing window reported by bill group. Only applicable for AMI meters.	Report
REQ-06052	MET-385	Metering - Meter Data Management	Register Reading Performance for both the percent and count. Only applicable for AMI meters.	Report
REQ-06053	MET-386	Metering - Customer Services	The total count of AMI Meters that have been disconnected for various reasons i.e. manually blocked, cut at the poll or remotely blocked (open switch).	Report
REQ-06054	MET-387	Metering - Asset & Inventory	This metrices will provide communication infrastructure for AMI deployment including: • Planned • Deployed • Variance	Report
REQ-06056	MET-389	Metering - Customer Services	Information around the number of RCD attempts / failures each day. Also include processing time	Report
REQ-06057	MET-390	Metering - Customer Services	Number and percentage of billing exceptions (read received, but not validated). Generated daily .	Report
REQ-06060	MET-393	Metering - AMI	Identify mismatched meter to transformer. Use interval meter data to fix meter-to-transformer topology Only applicable for AMI meters.	Report
REQ-06061	MET-394	Metering - Meter Data Management	Usage analysis Customer Load Pattern Analysis Customer Peak Analysis Identify customers with distributed generation Only applicable for AMI meters.	Report
REQ-06064	MET-397	Metering - Asset & Inventory	Meter malfunction trend analysis and reports	Report
REQ-06070	MET-403	Metering - Meter Data Management	Identify and analyze abnormal customer use patterns Only applicable for AMI meters.	Report
REQ-06078	MET-411	Metering - Meter Data Management	Identify active gas meters showing no consumption over a specified period of time	Report
REQ-06079	MET-412	Metering - Meter Data Management	Calculate transformer loading using customer interval meter data. Insight on impact of additional load on existing transformer Only applicable for AMI meters.	Report
REQ-06083	MET-416	Metering - Meter Data Management	Identify high energy customers during summer and winter peaks for demand response programs Only applicable for AMI meters.	Report
REQ-16001	PF-001	Planning Forecasting	System shall be able to get the data from various internal and external sources to enable multi-year forecasting for business planning and demand planning. Internal: - 20 years' of historical usage data from CSS External: - Factors for Heating, Cooling, Appliances etc. - Weather data - Economic data (Moody's) - Generation data(solar, DR) - DER data, EV data	Report

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Business Requirements			Review Comments & Status				Effort Estimation, Sequencing, and Approval							Required System Interfaces							
Req #	Business Area / System	Business Requirement Description	Owner	Review Comments	Review Date	Review Response	Effort Level	TSA Exit	AMF	Release	Priority	Requirement Category (FR, NFR)	Approval Status	AMI Head End System	CSS	Asset Management	Inventory Management	Electricity Meter Testing	Gas Meter Testing	Meter Data Management	MV90
REQ-01001	General	System shall have capability for providing role-based access and have ability to integrate with single sign-on (SSO) ** *L+G AMI & MDMS:* System shall have capability for providing role-based access and have ability to integrate with single sign-on (SSO) using PPL's Active Directory		be sure this goes out to each and all of the vendors, risk of missing it because it is listed as General.	5/23/2022	Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft								
REQ-01002	General	Internal PPL Users will have full read write access to all non-prod Databases (full CRUD access) **L+G AMI & MDMS:* Internal Company Users will have full read access to all non-production databases, including the Disaster Recovery Instance. Integration work will be supported using standard APIs.		be sure this goes out to each and all of the vendors, risk of missing it because it is listed as General. Not supported in SaaS today. To address in overall Data Access discussion . PPL needs ability to recreate test conditions for production issues. (Professional Service)	5/23/2022	Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft								
REQ-01003	General	Internal PPL Users will have full read access to all prod Databases . ** L+G AMI and MDMS: Not applicable		be sure this goes out to each and all of the vendors, risk of missing it because it is listed as General. Part of Data Access discussion Need to bound . Today Access read Only to CC database, - Use SQL access , Report writer etc.. On their screen.	5/23/2022	Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft								
REQ-01004	General	PPL DBAs will have full access to all prod and non-prod Databases.		be sure this goes out to each and all of the vendors, risk of missing it because it is listed as General. Part of Data Access discussion . Not supported in SaaS today Would jeopardize Soc compliance. Could create users, lock users, destroy database, be a schema owner, run backups - Non Starter.	5/23/2022	Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft								
REQ-01005	General	Application SLA requirements to be added **PPL DBAs will have full access to all prod and non-prod Databases.		DV - for L+G we have most of these and could add them now? 95% now is better than putting it off till later.	5/23/2022	Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft								
REQ-02001	Metering - Asset & Inventory	Meter testing system should be able to receive meters and network comms device files from Asset & Inventory management system for testing. File will cover MV90, AMR and AMI meters for both elec and gas. Gas meter radio terminal, auxiliary devices, CTs PTs details also will be received from Asset & Inventory management system for testing.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft				x	x	x		
REQ-02002	Metering - Asset & Inventory	Meter testing system should be able to send the testing result to asset & inventory management system		DAL - Good	4/18/2022		[redacted]	75%	25%	R2	High	FR	Draft			x	x	x	x		
REQ-02003	Metering - Asset & Inventory	Head End Systems for AMI should be able to receive the serialized meters and network comms devices		DAL - Good DV - we can proceed with this for now, it is likely the network comm devices will be handled in another system following the existing PA methods.	6/13/2022	Update and added next two new requirements for AMR and MV90	[redacted]	75%	25%	R2	High	FR	Draft			x					
REQ-02006	Metering - Asset & Inventory	Meter data management system should be able to receive the serialized meters		DAL - Good	4/18/2022		[redacted]	75%	25%	R2	High	FR	Draft			x				x	
REQ-02007	Metering - Asset & Inventory	Meter testing system should be able to receive the meters from Asset and Inventory management as part of CMO, sample PUC testing		DAL - Good	4/18/2022		[redacted]	75%	25%	R2	High	FR	Draft			x	x	x	x		
REQ-02008	Metering - Asset & Inventory	Meter testing system should be able test the meters as per PUC test guidelines and send the result to Asset and Inventory management system		DAL - Good	4/18/2022		[redacted]	75%	25%	R2	High	FR	Draft			x	x	x	x		
REQ-02009	Metering - Asset & Inventory	Upon replacement / removal / installation of meter & comms component / Radio ID, Head End systems (AMI, AMR ~~and MV90~~) shall receive updates from asset inventory /CSS and shall keep the records in sync.		DAL - Good	4/18/2022	Updated	[redacted]	75%	25%	R2	High	FR	Draft	x	x	x	x				
REQ-02010	Metering - Asset & Inventory	Upon replacement / removal / installation of meter & comms component / Radio ID, meter data management system shall receive updates from asset inventory /CSS and shall keep the records in sync.		DAL - Good	4/18/2022		[redacted]	75%	25%	R2	High	FR	Draft		x	x	x			x	
REQ-02011	Metering - Asset & Inventory	Meter testing system will be able to associate / disassociate of network comms modules with meters during testing		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft					x	x		

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REQ-02012	Metering - Asset & Inventory	Meter testing systems shall have the ability to test both accuracy (metrology) and functional tests on a meter.		DAL - Good	4/18/2022		[redacted]	75%	25%	R2	High	FR	Draft					x	x		
REQ-02013	Metering - Asset & Inventory	Meter testing systems shall have the ability to run a pre-defined Dynamic Sequence of tests on a meter from a connected test board.		DAL - Good	4/18/2022	Corrected	[redacted]	100%	0%	R2	High	FR	Draft					x	x		
REQ-02014	Metering - Asset & Inventory	Meter testing systems shall have the ability to test the following functional tests on a meter - register validation test reading validation test two-way communication test business event validation test physical event validation test		DAL - Good	4/18/2022		[redacted]	75%	25%	R2	High	FR	Draft					x	x		
REQ-02016	Metering - Asset & Inventory	Meter testing systems shall be configurable to allow approved user to update the Dynamic Sequence of tests performed on a meter.		DAL - Good	4/18/2022		[redacted]	100%	0%	R2	High	FR	Draft					x	x		
REQ-02017	Metering - Asset & Inventory	Meter testing systems shall track all unique versions of configured test sequences.		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02018	Metering - Asset & Inventory	Meter testing systems shall have the ability to run pre-programmed meter tests automatically after the test program is initiated by a Meter Tester.		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02019	Metering - Asset & Inventory	The Meter Tester shall run the pre-programmed meter test program via the meter testing application.		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02020	Metering - Asset & Inventory	Meter testing system shall measure the meter in each test and compare the test result to the test program's pass criteria.		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02021	Metering - Asset & Inventory	Meter testing system shall display the results based on the user input criteria.		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02022	Metering - Asset & Inventory	The Meter Tester shall place the meter ~~/ network device / CT/PT~~ in a "Passed" meter crate when the meter passes the test program.		DAL - Good	4/18/2022	Updated	[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02023	Metering - Asset & Inventory	The Tester shall place the CT/PT in a "Passed" status when it pass the test .		DAL - Good		Added new requirement for CT/PT	[redacted]	80%	20%	R2			Draft					x			
REQ-02024	Metering - Asset & Inventory	The Meter Tester shall place the meter ~~/ network device / CT/PT~~ in a "Failed" meter crate when the meter fails the test program for either an accuracy test or a functional test that has been pre-configured to cause the meter to fail the overall testing criteria.		DAL - Good	4/18/2022	Updated	[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02025	Metering - Asset & Inventory	The Tester shall place the CT/PT in a "Failed" status when the CT/PT fails the test for either an accuracy test or a functional test that has been pre-configured to cause the CT/PT to fail the overall testing criteria.		DAL - Good		Added new requirement for CT/PT	[redacted]	80%	20%	R2			Draft					x			
REQ-02026	Metering - Asset & Inventory	Meter testing system shall update the Meter Testing Dashboard with a summary of the test results upon completion of the testing of the sample group.		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02027	Metering - Asset & Inventory	Meter testing system shall have the ability to conduct First Article Testing activities for all forms and classes of all type of meters, network com devices, CTs/PTs, Gas Meter, ERT for Gas, Revelo Meter.		DAL - Good	4/18/2022		[redacted]	80%	20%	R1	High	FR	Draft					x	x		
REQ-02028	Metering - Asset & Inventory	Meter testing system shall have the ability to run metrology accuracy tests on a First Article Meter.		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02029	Metering - Asset & Inventory	Meter testing system shall have the ability to run functional tests on a First Article Meter that are available through the End Point Tests Manager software integration.		DAL - Good DV - what is the "End Point Tests Manager"? does vendor understand what this requirement is?	4/18/2022	Corrected	[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02030	Metering - Asset & Inventory	Meter testing system shall have the ability to verify that the correct firmware and software is installed on a First Article Meter (AMI)		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft					x	x		
REQ-02031	Metering - Asset & Inventory	Meter testing system shall have the ability to test communication components of a First Article Meter that ae available through the End Point Tests Manager software integration.		DAL - Good DV - what is the "End Point Tests Manager"? does vendor understand what this requirement is?	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02032	Metering - Asset & Inventory	Meter testing system shall have the ability to test events of a First Article Meter that ae available through the End Point Tests Manager software integration.		DAL - Good DV - what is the "End Point Tests Manager"? does vendor understand what this requirement is?	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02033	Metering - Asset & Inventory	New metering data collection system (~~MV90~~,AMR,AMI) should be able to collect and store all meter asset information with technical configuration received from asset & inventory system		DAL - Good	4/18/2022		[redacted]	80%	20%	R2	High	FR	Draft	x		x	x			x	
REQ-02034	Metering - Asset & Inventory	New metering data management system should be able to collect and store all meter asset information with technical configuration received from asset & inventory system and incorporate business configuration received from CSS to the meter asset. Example: Meter configurations - meter asset master data with comms module, ~~battery information, date of purchase,~~ availability status, ~~meter testing status~~, phase & form information, location details, etc. Business configuration - meter multiplier, UOM, number of dials, number of registers, register type, interval length, sampling rate, etc.		DAL - Good	4/18/2022	Updated	[redacted]	80%	20%	R2	High	FR	Draft			x	x			x	
REQ-02035	Metering - Asset & Inventory	Asset & inventory system should be able to collect and store operational status and location details received from AMI head-end system		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x		x	x				
REQ-02036	Metering - Asset & Inventory	Meter testing system shall interface with meter shop test stations (WECO, TESCO).		DAL - Good DV - expand this to include the Gas meter equivalent (Gas Meter Testing apparatus-replacement for SNAP), SNAP and ERT Comm Testing.	6/13/2022		[redacted]	80%	20%	R2	High	FR	Draft					x	x		
REQ-02040	Metering - Asset & Inventory	Meter testing systems shall have the ability to carry out Demand testing for Electric Meters.			6/22/2022		[redacted]	100%	0%	R2	High	FR	Draft					x			
REQ-02041	Metering - Asset & Inventory	Meter testing systems shall have the ability to support Leakage testing for Gas Meters.			6/22/2022		[redacted]	100%	0%	R1	High	FR	Draft						x		

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REQ-02050	Metering - Asset & Inventory	The system shall include WECO Test Boards for Electric Meters Make X Model X			Added on 6/17					R1			Draft					x			
REQ-02051	Metering - Asset & Inventory	The system shall include scanners, special connectors, and windows drivers, all compatible with windows 10 OS			Added on 6/17					R1			Draft					x	x		
REQ-02052	Metering - Asset & Inventory	The system will fully integrate with SonicNine gas provers utilizing the SonicNine API. The WNP system to be fully integrated/automated with SonicNine gas provers, leveraging the same solution developed for and in use at LGE/KU.						100%		R1			Draft					x	x		
REQ-03001	Metering - AMI	The AMI Head End shall support collection, storage, and reporting of AMI network devices. (Gateway and Mesh extenders)		DAL - Good	4/18/2022		[redacted]	0%	100%	R0	High	FR	Draft	x								
REQ-03002	Metering - AMI	The AMI Head End shall support scheduled, on-demand, and endpoint-initiated data collection for electricity and gas.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03003	Metering - AMI	The AMI Head End shall support a configurable time (e.g., 60, 15, 5 minute) interval for all Meter data. i e., can be specified on an individual meter and data basis.		DV - Added the i.e. part.	5/23/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03004	Metering - AMI	The AMI Head End shall have the ability to receive any newly available data from an AMI Network and store it with proper versioning.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03005	Metering - AMI	The AMI Head End shall have the capability to request all historical data for which the AMI Network Equipment is configured to collect.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03006	Metering - AMI	The AMI Head End shall have the capability to record when it cannot receive a scheduled or requested read within a configurable amount of time, including Meter #, and Meter failure codes (including communication errors). Example: METERNO EVENTTYPEID EVENTNAME FIRSTEVENTDATE 301432309 3789 Exceeds the maximum allowable layers event 2022-05-06 16-53-43 -- this can be for any command, including a Read request 301432309 4466 Interval Data Gap Reconciliation Retry Expired 2022-05-06 16-53-42 -- this is for Interval reads that are missing. The system tries again and if not successful will return the Eventtypeid		Currently in PA we do receive errors for non-comm meters such as these 2 below. These are mainly used for meter investigation purposes as we are directed to non-comm meters (Stale meters) by the lack of a Daily Shift readings. METERNO EVENTTYPEID EVENTNAME FIRSTEVENTDATE 301432309 3789 Exceeds the maximum allowable layers event 2022-05-06 16-53-43 -- this can be for any command, including a Read request 301432309 4466 Interval Data Gap Reconciliation Retry Expired 2022-05-06 16-53-42 -- this is for Interval reads that are missing. The system tries again and if not successful will return the Eventtypeid	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03007	Metering - AMI	The AMI Head End shall have the ability to request missing data from the Meter at a configurable frequency throughout the day.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03009	Metering - AMI	The AMI Head End shall have the ability to send incremental extract files containing meter data to MDMS at a configurable frequency.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x		
REQ-03010	Metering - AMI	The AMI Head End shall have the ability to provide near real-time transfer of meter data (including customer usage data) to MDMS, Outage Management Systems and possibly CSS Green Button		ADMS, OMS, possibly CSS Green Button 07	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x					x		
REQ-03011	Metering - AMI	The AMI Head End shall support bidirectional communication with meter for on-demand read, on-demand ping, remote connect/disconnect, etc. In addition to being done manually, this capablity shall be use by multiple applications interfaced to AMI Head End.		limit the etc.. Define for R2	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x					x		
REQ-03012	Metering - AMI	The AMI Head End shall provide a user interface to enable the execution of remote commands to AMI Network Equipment (router, data collector)		DAL - Good	4/18/2022	Changed to R1	[redacted]	0%	100%	R0	High	FR	Draft	x								
REQ-03013	Metering - AMI	The AMI Head End shall have the ability to receive, process, and respond to on demand requests for data from AMI Equipment from other Company systems (MDMS, OMS, ADMS, etc.) for individual devices or groups of devices.		DV - small working change.	4/18/202205	Changed to R1	[redacted]	0%	100%	R0	High	FR	Draft	x						x		
REQ-03014	Metering - AMI	The AMI Head End shall have the ability to send requested meter data to other Company systems (e.g., MDMS, ADMS, OMS).		DAL - Good HL - Good	4/18/202205	At this point of time there is no such requirement for sending data from metering systems to GIS. However theree may be need this in future.	[redacted]	0%	100%	R2	High	FR	Draft	x						x		
REQ-03015	Metering - AMI	AMI Provider shall have the development capability to ensure the AMI Head End has the ability to send the result of a ping request (success or time out) to other Company systems (e.g., OMS, ADMS) in coordination with the System Integrator.		DAL -Good HL - Good	4/18/202205	DDO - Data driven operation (SMOC)	[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03016	Metering - AMI	The AMI Head End shall have the ability to receive ping requests for an individual AMI Equipment or group of AMI Equipment from other Company systems (e.g., OMS, ADMS).		DAL - Good HL - Good	4/18/202205/09/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03017	Metering - AMI	The AMI Head End shall request a register read and a demand read from the Meter just prior to a demand reset. (Composite transactions)		Do today, composite transaction, on cycle and/or move out.. (PPL also does Daily Demand Reset in Meter program	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03023	Metering - AMI	The AMI Head End shall have the ability to trigger exception handling processes, including notifying appropriate systems		Replace the words with: The AMI Head End shall have the ability to trigger exception handling processes, by notifying appropriate systems.	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x	x						

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REQ-03025	Metering - AMI	The AMI Head End shall support remote programming/configuration for an individual AMI Equipment device or group of AMI Equipment with an effective date/time (i.e., either immediate or future time).		DAL - Should this be in release R1?	4/18/2022	Changed to R1	[redacted]	0%	100%	R0	High	FR	Draft	x								
REQ-03026	Metering - AMI	The AMI Head End shall have the ability to receive remote connect/disconnect requests from other Company systems (e.g., MDMS, CSS) and send an acknowledgment to the originating system that the request was received.		DV - good, keep CSS in.	4/18/2022	Updated	[redacted]	0%	100%	R2	High	FR	Draft	x	x					x		
REQ-03027	Metering - AMI	The AMI Head End shall have the ability to request a meter reading prior to and after initiating a remote connect/disconnect request (including switch status).		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x					x		
REQ-03028	Metering - AMI	The AMI Head End shall receive a response from the Meter following the success or failure of each part of a connect/disconnect transaction.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03029	Metering - AMI	The AMI Head End shall update the Meter status to "Connected" or "Disconnected" after the successful completion of a connect/disconnect command.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x		
REQ-03030	Metering - AMI	The AMI Head End shall have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03031	Metering - AMI	The AMI Head End shall have the ability to run diagnostics to identify and provide reports for meters that regularly provide non billable Meter data.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03032	Metering - AMI	The AMI Head End shall have the ability to send on demand requests to AMI Equipment in near real time.		DAL - Good	4/18/2022	Changed to R1	[redacted]	0%	100%	R0	High	FR	Draft	x								
REQ-03033	Metering - AMI	The AMI Head End shall have the ability to receive & store on demand requests/response from individual or groups of devices.		DAL - Good	4/18/2022	Changed to R1	[redacted]	0%	100%	R0	High	FR	Draft	x								
REQ-03034	Metering - AMI	The AMI Head End shall have the ability to process a demand reset request for an individual Meter or group of Meters either by manual input or as a request from another Owner (company) system.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03041	Metering - AMI	The AMI Head End shall not allow a remote reconnect operation to be performed if load-side voltage is detected and shall display an event flag indicating reconnect failure reason.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03042	Metering - AMI	The AMI Head End shall have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03044	Metering - AMI	AMI Head End shall identify and restrict a broadcast remote disconnect/re-connect request, or a batch request exceeding a configurable number of service points. Requests beyond configurable batch size should have an override ability to enable in the event of major storm response.Override here means to shut the process down.		Any concern with requirement wording, Validate process. Throttle(velocity) setting is in CC, Broadcast is not supported. 8.3 feature introduced flexibility. . Need to work though the override ability use case. Need to cover an extraordinary number heading into the HES can stop the process. Override here means to shut the process down.	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03045	Metering - AMI	AMI Head End system shall have the ability to collect and store device level events (e.g. gas meter battery, hot socket, tamper, time sync, etc.) and business events (high/low voltage, last gasp, missing read, reverse energy flow, etc.)		DAL - Good	4/18/2022	Corrected	[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03046	Metering - AMI	AMI Head End system shall have the ability to de-duplicate, correlate, filter events based on the configurable business logic		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x								
REQ-03047	Metering - AMI	AMI Head End system shall have the ability to provide event data to downstream system, either scheduled or on demand		DAL - Good	4/18/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x					x		
REQ-03049	Metering - AMI	AMI Head End shall Be able to send meter data to Green Button (or respond to Green Button inquiries from customer) within configurable time period		Today this is offered only thru the AI portal . This should be done by the PA portal not a CC function . Tied to Real time streaming use case, expected consumer delivery option. Expand to all systems (HES, MDM, or a data lake?)			[redacted]	0%	100%	R2	High	FR	Draft	x						x		
REQ-03057	Metering - AMI	The AMI Head End shall be able to differentiate between a communications outage and a power system outage. Power system outages shall be communicated to other systems. Communication outages result in data not being available to other systems.		DAL - Good	4/27/2022	updated column C	[redacted]	0%	100%	R4	High	FR	Draft									
REQ-03058	Metering - AMI	Title: Daily Read Performance Metric For Meters on a certified electric service point expected to measure daily data through the Head End System, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **snap-read: ≥ 99.5% **Snap-read is defined as the Meter Registers - Energy Registers- kwh Summation, Delivered, and Received - Demand Registers - TOU Registers		HL - Good BH - PA AMO has built this in Power BI	5/10/2022	Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x								
REQ-03059	Metering - AMI	Title: Billing Read Performance Metric For Meters within their billing window (4 days) on a certified electric service point expected to measure data through the Head End System, the scheduled actual daily read data must be available in the Head End System by 0700 hours by no later than the last day of the billing window, based on the targets below: **snap-read: ≥ 99.75% **Snap-read is defined as the Meter Registers - Energy Registers- kwh Summation, Delivered, and Received - Demand Registers - TOU Registers AMI HE will provide the data for presentment.	Bill H	HL - Good BH - PA AMO has built this in Power BI	5/10/2022	Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x								

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REQ-03060	Metering - AMI	Title: High Revenue* Read Performance Metric For Meters associated with complex billing within their billing window (4 days) on a certified electric service point expected to measure interval data through the AMI Head End, the scheduled actual interval read data must be available in the AMI Head End by 0700 hours, based on the targets below: Intervals since last bill: = 99.5% Interval Read Data Elements are defined as: Delivered kWh (+kWh), Received kWh (-kWh), Voltage swells (per phase), Voltage swells (any phase),Voltage sags (per phase), Voltage B53sags (any phase),Amp Hours Phase A (IAh), Amp Hours Phase B (IBh), Amp Hours Phase C (ICh), Volt Hours Phase A (Vah), Volt Hours Phase B (Vbh), Volt Hours Phase C (Vch) *High Revenue Meters shall be defined as GS3 and above rate class meters and MV90 meters		HL - Good BH - need this; several groups use this report but it is already built	5/10/2022	Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x							
REQ-03061	Metering - AMI	Title: Interval Data Read Performance Metric For Meters on a certified electric service point expected to measure interval data through the AMI Head End, the scheduled actual interval data must be available in the AMI Head End, by Noon, for every interval data channel designated by Company, of every Meter, everyday based on the targets below: *Prior day's recorded data for all configured intervals measured on by Noon: ≥ 99 00% Interval Data Channels can be of the following data elements for Focus AX meters: Delivered kWh (+kWh), Received kWh (-kWh), Voltage swells (per phase), Voltage swells (any phase),Voltage sags (per phase), Voltage sags (any phase),Amp Hours Phase A (IAh), Amp Hours Phase B (IBh), Amp Hours Phase C (ICh), Volt Hours Phase A (Vah), Volt Hours Phase B (Vbh), Volt Hours Phase C (Vch)		HL - Good BH - PA AMO has built this in Power BI	5/10/2022	Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x							
REQ-03062	Metering - AMI	Title: *On Request Read Targets: Single Meter query within 30 seconds for at least 95% of time Up to 10,000 Meters less than 10 minutes for at least 95% of Meters *Applies from Head End System to Meter roundtrip.		DAL - Good		Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x							
REQ-03063	Metering - AMI	Title: *Meter Ping Targets: Single Meter query within 30 seconds for at least 95% of the time. Up to 10,000 Meters less than 2 minutes for at least 95% of the Meters. *Applies from Head End System to Meter roundtrip.		SLA's- true ping through Ode, . SLA measured from CC to meter and back to CC		Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x							
REQ-03064	Metering - AMI	Title: Outage Target: When 50 Meters in an established mesh lose power for greater than 5 minutes and then regain power, at least 80% of the meters will be available to receive and respond to commands from the Head End System within 5 minutes after power restoration to the Meter, or at least 90% will be available to receive and respond to commands from the AMI Head End within 7 minutes after power restoration to the Meter.		Item in Red need to review. May have differences in process under Wi-SUN		Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x							
REQ-05001	Metering - MV90	Supply Chain issues shall not impact delivery of a functioning MV90 system. Look at communication hardware, modems, serial to P converters.		DV - very important. MV90 Upgrade at PPL Pa is stalled on this hardware issue.					100%	R1			Draft								x
REQ-04020	Metering - Meter Data Management	MDMS shall Receive, Load and process MV90 Gas Meter data in MDMS to support large Gas customer billing.		DV - will we keep Gas meters read by MV90 in MDMS. We have not talked much about Gas Meter Billing. Do we need to add a couple additional requirements for this.		We have captured this under MV 90			100%				Draft								x
REQ-04021	Metering - AMR	Drive By/Pedestrian Gas meter data in MDMS to support normal Gas customer billing **AMR Meter Reading System Drive By/Pedestrian Gas meter data in MDMS to support normal Gas customer billing				This is covered under AMR requirements		100%	0%				Draft								

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REQ-03065	Metering - AMI	Title: Remote Connect / Remote Disconnect (RCRD) For deployed Meters equipped with a remote service switch, the Remote Connect/Remote Disconnect (RCRD) command success rate and maximum elapsed time for each successful command issued under normal Solution Component operating conditions, will be measured on a weekly basis. *Target to an Individual Meter: Success rate >= 95% Maximum elapsed time/command <= 60 seconds *Target up to 1000 Meters: Success rate>= 95% Maximum elapsed time/command <= 120 seconds *Applies round trip to command issued from AMI Head End to Meter and recorded in AMI Head End database		DAL - Good		Added new requirement as suggested	[redacted]	0%	100%	R2		NFR	Draft	x							
REQ-03066	Metering - AMI	System shall have the ability to properly handle daylight savings including the duplicate hour in the fall, the missing hour in the spring, internal and user interface representation, and representation in interfaces to other applications.		. Can we just use UTC time, need meters to handle properly. UTC vs Local time. Pending legislation. Features are in cc8 2 and MDMS 5.1			[redacted]	0%	100%	R2	High	NFR	Draft	x							
REQ-03068	Metering - AMI	The AMI Head End system shall be able to communicate with HAN Devices to show the consumption details		Revelo communicated via Wi-Fi to a device. Not like Zigbee	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-03070	Metering - AMI	The AMI Head End system shall have the ability to configure the amount of time a Meter remains in a connected mode for connecting a HAN Device		need to discuss under Wi-Fi- Not expected to connect directly to IHDs 3068-3083	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-03071	Metering - AMI	The AMI Head End system shall have the ability to limit the number of HAN Devices that a Meter can be connected with at one time and shall notify the customer when the maximum number of HAN Devices have been connected.		DV - good	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-03073	Metering - AMI	The AMI Head End system shall have the ability to send dynamic pricing information and price signals to the Meter		DV - good as written, "to the meter" BH - I agree w/DV -meter yes but not to IHD.DV - to the Meter, ok. to the HD?	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x	x					x	
REQ-03076	Metering - AMI	The AMI Head End system shall have the ability to communicate to a HAN Device using communication protocol supported by the HAN Device.		DV - reworded, ok. DV -this will now be WiFi, no more Zigbee with Revelo meters DV - Mixing IHD and HAN. Think which is better and use that consistently.	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-03079	Metering - AMI	The AMI Head End system shall ensure Meter to HAN Device connecting, and only allow the meter to communicate to the connected HAN Device.	DV	DV - reworded, ok. all this needs review. We want to keep this simple, we expect minimal adoption. Discuss - Wi-Fi and CMEP	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-03087	Metering - AMI	The AMI Head End system shall store a list of available commissioned HAN Devices in the premise and make that list available upon request.	DV	DV - ok all this needs review. We want to keep this simple, we expect minimal adoption. Revelo via Wifi is not ZigBee.	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-03088	Metering - AMI	AMI HE shall receive 5 or 15 minute interval Electric meter read data at 20 minutes interval .		Rewrite intent. 15' minute push every 15' is over the next interval probably heading to Datalake for RAW data and then VEE overlaid next day . Usually worded 15 minute data available within 30 to 45 minutes to consumer - Green Button impact			[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-03089	Metering - AMI	AMI Head End shall receive 60-minute Gas interval meter read data at 6 hours interval.		Discuss meaning. Here - Add to R6 - discuss at later date , many ways to do with Revelo .			[redacted]	0%	100%	R5	High	FR	Draft	x						x	
REQ-03093	Metering - AMI	All communication between AMI Head End and AMI Network Equipment (collectors, gateways) shall be encrypted using certificates using standards that are industry recognized as secure.		DV - new one	5/26/2022		[redacted]	0%	100%	R2	High	FR	Draft	x							
REQ-03094	Metering - AMI	All communication between the AMI Head End and all Field Devices (DERs, Meters, Gateways, Collectors, Routers, DA Device, Methane Detectors, Street Lights) shall be fully encrypted using standards that are industry recognized as secure		DV - new one	5/26/2022		[redacted]	0%	100%	R2	High	FR	Draft	x							

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REQ-04001	Metering - Meter Data Management	MDMS shall have bi-directional communications with the Head End, CSS, customer portal, ADMS, etc.		DV - general comment on Req # and/or Reference # - do you want to start each application at the next highest thousand. Leave room for adds without having to renumber. Currently MDMS PA PPL utilizes oracle database links for some functionality - we need to specifically exclude that. MDMS and ADMS are not usually integrated typically outage, near real time go directly to ADMS. Need to flush use case. May be from AMI HES	4/21/2022	Addressed by Renumbering	[redacted]	0%	100%	R1	High	FR	Draft	x	x					x	
REQ-04002	Metering - Meter Data Management	MDMS shall synchronize with CSS at least daily insuring ongoing matching of MDMS to CSS. This includes many things mastered in CSS including Account at Premise, Meter Number, Rate Class, Electric Supplier, Gas Supplier both current and historical, Install and removal reads.		DV new one Think they are assuming the same custom method employed currently at PA PPL, which does not SYNC, only MAINTS, then the database links are used for validation Standard DSE processes are supported today. Typically DBSync once a week and DBMaint everyday. Some customers also do DBSyncs everyday and forego DBMaints. This is usually for customers with a small number of endpoints. Would need to be finalized in project planning/workshops			[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-04003	Metering - Meter Data Management	Pended Meter reads in MDMS shall be readily visible and manageable by MDMS Users. Synchronization with CSS will result in Pended Reads being less than 50 accounts per day .		DV - new one the final statement is incorrect, if synchronization occurs, the meters are installed and provisioned, and they reads are not pended			[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-04004	Metering - Meter Data Management	MDMS shall support communication with multiple Head End systems i.e., AMI Head End, AMR, multiple MV90 systems, Drive By meter reading system. ** Itron : MDMS shall support communication with multiple Head End systems i e., AMI, AMR, multiple MV90 systems, AMR Meter Reading System.		DAL - Good, DV change to something like: MDMS shall support communication with multiple Head End systems include AMI, AMR, multiple MV90 systems, Drive By meter reading system.	4/21/2022	updated	[redacted]	30%	70%	R1	High	FR	Draft	x						x	x
REQ-04005	Metering - Meter Data Management	MDMS shall receive reads from the AMI Head End at a configurable frequency (e.g., 5 times a day) throughout the day based on data validation rules.		DAL - i think it would be better to say "receive" instead of "request". DV - Greg D should comment here. I think we want to be running AMI HE to MDMS continually, perhaps every 10 minutes. DV - makes this "as fast as 72 times a day" to match the half hour meter reporting rate? Data Validation rules do not apply to the frequency of reads passed by the head end. is this streaming or incremental ? Cannot do bot	4/21/2022	Updated	[redacted]	0%	100%	R1	High	FR	Draft	x						x	
REQ-04006	Metering - Meter Data Management	MDMS shall receive batch data from each MV-90 system multiple times per day on business days (at minimum 2) following 24 hr clock considerations.		DV - small wording change. Assumption is the MV90 SDX Adapter, no issue., 24 hr clock considerations, morning and before afternoon forecast- Initial Estimate 2500 MV-90 accts 1900 E 600 G. Leverage PA clock, run early morning and then late morning. (via SfTp)	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04007	Metering - Meter Data Management	MDMS shall be able to receive and load reads from multiple MV90 systems with a unique file naming convention.		DV - this is an add filenames may not duplicate, electric and Gas,	4/21/2022		[redacted]	100%	0%	R1			Draft							x	x

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REQ-04008	Metering - Meter Data Management	MDMS shall receive batch data from AMR Head End and Drive By Meter Reading system once in a day. **MDMS shall receive batch data from AMR Meter Reading System and Drive By Meter Reading system once in a day.		DAL - Good DV - "and Drive By Meter Reading system" Outstanding question with CSS team. Is it possible to specify CEF format? Need to understand impact on clock. When is AMR reads uploaded time of day? - Expect format to be in Itron Integrator format. (1200 byte record) used in PA. Is Integrator and FCS format the same/ similar? (May need to review the format) . Will the Clevest Drive by solution change drive by format. MDM will create a file for CSS. Like REQ above, subject to 24hr clock and performance considerations/tuning. Would need to be a data conversion/custom integration. Need to see sample files.	4/21/2022	Updated	[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04009	Metering - Meter Data Management	MDMS shall apply conversion factors to raw data, if applicable, in order to enable other systems to consume the data (e.g., format/unit factors). This covers multipliers, Unit of Measures and potential Loss Factors.		6/15 PPL provides factors today correct? This covers multipliers, Unit of Measures and potential Loss Factors. - L+G run to ground.	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04010	Metering - Meter Data Management	MDMS shall receive to a request for meter data from other applications and respond with requested data in a standard format (e g., CSV, CMAP / ADAT, XML).		DAL - Is the request here from CSS? f so, note that this request/response process will probably be handled in the PPLCO_MDM_SCHEMA not main MDMS DV - agree with Dwain, but keep it as a requirement. which format? via batch or web services/queues?- 6/15 PA is file based. Follow PA format and integrations. Green button to be more near real time, Complex Billing integration to be defined. PA process uses a custom schema, not GA. Does L+G provide the Complex billing - BD or add the Complex Billing into MDM_ (New Integration) - commercial implications for proprietary PPL code. Add Vendor Billing to discussion. - Can PPL Move their Schema to the cloud? Table vs Code . Code is proprietary and would be needed. - need to review PA deployment for Proprietary Code deployed.	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04011	Metering - Meter Data Management	MDMS shall provide billing determinants to CSS for each of the billing types including (existing meter monthly billing, large customer billing, AMF meter monthly billing, TOU, TVR, CPP, etc), including delivered and received or net as required.		DV new one Large Power was not provided for PA PPL, michael H. wrote that, modified it with Nikhil's help - add to effort review in 4010. assuming CPP and RTP are equivalent. - L+G address RTP bug and backport to PA.			[redacted]	50%	50%	R1			Draft	x	x					x	
REQ-04012	Metering - Meter Data Management	MDMS shall store raw, working, validated and final usage data with versioning.		DAL - Good	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	

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REQ-04013	Metering - Meter Data Management	MDMS shall have the ability to bulk upload of historical data through out-of-box adapter		DAL - Let's add to this requirement how much (in number of months) historical data we want to bulk upload CEF format can be used by the fileMapper python routine, modifying the format to identical to CC output, including UTC time - L+G can do design historical like most traditional MDMS implementation (Register read loading). There is some level of custom work to support this effort. File formats exist, Issue is identifying the Master Data for record per day.	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04014	Metering - Meter Data Management	MDMS shall configure which registers are received and stored by meter type (including all ANSI standard meter data).		capability exists, utility responsibility, tied to the meter program as well	4/21/2022		[redacted]	50%	50%	R1	High	FR	Draft							x	
REQ-04015	Metering - Meter Data Management	MDMS shall receive and store daily shift reads i e. (midnight - midnight reads Gas Day 10AM - 10AM)		DAL - Good DV - how does this look Hesong? applies to Electric service, Gas day service is 10 AM-10 AM. Key clock issue will be Gas Settlement Time period. - ? Are there any blackout periods. (end of day to DSE)	4/21/2022		[redacted]	50%	50%	R1	High	FR	Draft							x	
REQ-04016	Metering - Meter Data Management	MDMS shall receive and store 60, 15, 5 minute interval data.		DAL - Good can the derived channel (net) be always hourly - it will make settlement easier since it must be rolled up. 6/15Green Button delivery will be native interval. Need more details on the derived channel. Customers typically have a meter installed to capture net readings, which then feed up to the AMI HES and MDMS.	4/21/2022		[redacted]	50%	50%	R1	High	FR	Draft							x	
REQ-04017	Metering - Meter Data Management	MDMS shall follow the NE/CSS annual calendar for holidays and bill cycles. MDMS should support User entry or automated interface to get annual calendar into MDMS.		DV new one. DV - does AMI HE need this too? NG		Added New requirement as suggested	[redacted]	100%	0%	R1			Draft		x					x	
REQ-04018	Metering - Meter Data Management	MDMS shall store sixty days of MV-90 raw interval files based on pre-defined format. The actual data is stored in the database for much longer.		DV - revised wording NG	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04019	Metering - Meter Data Management	MV90 meter data will support customer billing as well as interval based interchange accounting (tie lines, generators, etc), often requiring combination of multiple meters and multiple channels to derive the final values for customer billing and interchange.		DV - added for MDM. It exists below for MV90.		Added New requirement as suggested	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-04022	Metering - Meter Data Management	MDMS shall receive and store MV90 meter channel data from multiple channels. The number of channels should be configurable supporting a maximum number of 48 channels.		DAL - Good (I am not sure about the number of channels.) channel - LP not register	4/21/2022	Updated	[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04025	Metering - Meter Data Management	MDMS shall be able to estimate interval data for all accounts each day, including monthly read meters. This interval data is needed for MDMS Retail Settlement.		DV - this one needed for settlement of monthly billed customers. This is critical cost . Capability exists, the issue is what threshold of no registers for several months is acceptable? 6/15- Retail settlement at time of TSA exit.		Added New requirement as suggested	[redacted]	10%	90%	R1	High	FR	Draft							x	
REQ-04026	Metering - Meter Data Management	MDMS estimating of interval data shall work for customers with generation behind the meter i.e., the estimate could be either delivered or received using the net whole house metering derived channel.		DV - new one VME used today. With 201 derived channel. Est 1 and 101. roll up to 201. Net whole house metering . Impact on VEE and Sizing. - 6/15- Intention is Net Metering. - would cover in Configuration, VEE rules.		Added New requirement as suggested	[redacted]	0%	100%	R1	High	FR	Draft							x	
REQ-04027	Metering - Meter Data Management	Interface to CSS for Billing will include a billing usage estimate for the billing period.		Never heard this worded this way- 6/15 scenario to cover sending a user estimate for billing if needed.		Added New requirement as suggested	[redacted]	100%	0%	R1	High	FR	Draft		x					x	

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REQ-04028	Metering - Meter Data Management	MDMS shall receive from CSS customer connects and disconnects which are then forwarded onto the appropriate AMI Head End and confirmed that connect or disconnect occurred as expected or not, including any associated meter read information.		DV - new one		Added New requirement as suggested	[redacted]	0%	100%	R1	High	FR	Draft	x	x					x	
REQ-04029	Metering - Meter Data Management	When MDMS accepts MV90 generation accounts, it shall modify generation accounts to only have positive channel data. **_For L+G AMI HE and MDMS_ : When MDMS accepts MV-90 generation accounts, it shall modify generation accounts to only have delivered or received data.		DAL - Good Can PPL identify group-I am unaware if we have that capability with MV90. Today Generation meters report negative (rec) data. - Typically would be 201.	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04030	Metering - Meter Data Management	MDMS shall have the ability to accept MV90 interchange account data with an account ID in the name of the file.		DAL - Good Can PPL identify group	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04031	Metering - Meter Data Management	MDMS shall upload an MV-90 created name in replacement of an account ID and associate it to the appropriate usage data.		DAL - Good do this today, may be a minor customization	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04032	Metering - Meter Data Management	MDMS shall have the ability to accept MV90 interchange account data with a created name in replacement of an account ID.		DAL - Good do this today, may be a minor customization	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04033	Metering - Meter Data Management	MDMS shall match the MV90 interchange account created name to the appropriate usage data for the interchange account within MDMS to create an entity, which is defined as the account D - meter pair.		DAL - Good	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04034	Metering - Meter Data Management	MDMS shall run the Validation, Editing and Estimation process on all usage data (daily shift read and interval data). The system shall allow an individual user to edit/fix usage transactional data. **_For PPL/TCS:_ The system shall allow an individual user to edit/fix master data , which will be handled through DSE adapter and changes will be reflected in MDMS through co-schema sync.		DAL - Good Company configuration	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04035	Metering - Meter Data Management	MDMS shall store estimated data for an agreed upon duration.		DAL - Good same as actual	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04036	Metering - Meter Data Management	MDMS shall store historical attribute changes (e.g. rate change, supplier change) for an agreed upon duration.		DAL - Good	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-04037	Metering - Meter Data Management	MDMS shall store historical interval information for EDI accounts for 18 months.		DAL - Good Is this a RI requirement? at what interval level? delivered and received? net? should EDI be duplicated for this? What % of customers? no current method to segregate data for longer storage 6/15: PA stores 2 yrs., - awaiting stakeholder decision\ 07/18: Proceed with 2 years of historical data- Updated Req KM	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04038	Metering - Meter Data Management	MDMS shall have the ability to override an estimated read with the actual read using date and time stamp.		DAL - Good improved in MDMS 5.1	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04039	Metering - Meter Data Management	MDMS shall have the ability to override an estimated MV90 read with the actual read using date and time stamp if it receives an actual read from MV90.		DAL - Good configurable, always recommended	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-04040	Metering - Meter Data Management	MDMS shall receive and store instantaneous meter data (i.e. temperature, current, voltage, power factor, etc).	DAL	DAL - Is the plan for MDMS to receive current and power factor? this needs to be sized and costed carefully. Revelo may be different from what we have spec'd previously. The meter program will also impact this. - 6/15 - can do instantaneous voltage today ODE. Expectation of use case - Request/Response or Web feed. - May be tied to ADMS and OMS as well. may need 2 requirements	4/21/2022	follow up with PA team.(Jason)	[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04041	Metering - Meter Data Management	MDMS shall determine if a service order is required and generate a service order request to CSS or other Company system based on received reads, failed data quality checks and failures to return missing read requests.		DAL - Good I thought this could interface with NPM - service orders	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-04042	Metering - Meter Data Management	MDMS shall provide daily, monthly, and interval meter reads toCSS, Customer Portals on daily basis.		DV new one Do we understand "frequent", 6/16think continuous, scheduled mode within the 24 hour clock .		New requirement added as suggested	[redacted]	25%	75%	R1			Draft		x					x	

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REQ-04043	Metering - Meter Data Management	MDMS shall return account level and meter level interval data to a third-party portal or Company system upon request.		DAL - Good CEF format?	4/21/2022		[redacted]	75%	25%	R1	High	FR	Draft		x					x	
REQ-04044	Metering - Meter Data Management	MDMS shall support on demand requests to return requested meter data (e.g., dial reads, demand, coincident demand, specific day interval data, meter/system status, voltage, etc.) of an individual meter and/or groups of meters.		DAL - Good DV - how does this look Hesong? Composite transactions. Are all of these in PA today ?	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft							x	
REQ-04045	Metering - Meter Data Management	MDMS shall log all on-demand requests for meter data.		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-04046	Metering - Meter Data Management	MDMS shall manage transactions that occur in the off-cycle read processes such as move in/out, meter exchange, supplier switch, RCD, No read No estimates WorkflowManager(NO NO WFM) etc.		DAL - Are we thinking about supplier switch reads here? DV - Dwain, Hesong please take a look. CSS is the system of record. MDMS is an acor	4/21/2022	updated	[redacted]	0%	100%	R1	High	FR	Draft							x	
REQ-04047	Metering - Meter Data Management	MDMS shall pass the on demand requests for meter data to the AMI Head End.		DAL - On demand requests would only apply to the AMI Head End	4/21/2022	updated	[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-04048	Metering - Meter Data Management	MDMS shall configure meter requests based on a particular Head End and meter capability		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-04049	Metering - Meter Data Management	MDMS shall be able to support ad-hoc and scheduled request for on-demand read and demand reset requests from Company systems (CSS, OMS, ADMS)	Bill H	DAL - Pings will probably not go through MDMS DV - keep the demand and demand reset requirement until we know how RI works. For AMF meters in PA we get a daily max demand and then MDMS picks the highest dial max demand for the billing period demand. Owner system - AMI HES or other PPL systems	4/21/2022	updated.	[redacted]	0%	100%	R2	High	FR	Draft		x					x	
REQ-04050	Metering - Meter Data Management	MDMS shall provide operation reports for many things including: daily 24 hour batch job processing run times/status, number/types of pended reads, changes made in syncing with CSS, accounts and their status on the monthly read 4 day window, ...)		DAL - Good, DV made some edit here.	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-04051	Metering - Meter Data Management	MDMS shall identify unmetered accounts by rate and whether the unmetered account type is lighting rate or non-lighting rate.		DAL - Good How do we do this today ?	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04052	Metering - Meter Data Management	MDMS shall receive and store borderline (intertie metering - Company read and non-Company read) and unmetered (streetlights, traffic lights, CSS to provide profile (sunrise/sunset)) data.		DAL - Good What is Borderline and Unmetered Data mean for RI? Streetlights, traffic lights, CSS provides profile (sunrise/sunset) . Borderline (intertie metering- PPL read and Non PPL Read) - Interface for Non PPL Read to define? Is it streaming or file - will need for SOW.	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-04053	Metering - Meter Data Management	MDMS shall be able to accept from CSS a sunrise/sunset file with the values determined from the sunrise/sunset times for a given year		DAL - Good	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-04054	Metering - Asset & Inventory	MDMS shall receive, store, and process connect/disconnect requests from the CSS for one meter and/or a batch of meters.		DAL - Connect/disconnect requests should be funneled through CSS DV - what is the role of Metering Aset & Inventory here	6/13/2022	updated	[redacted]	0%	100%	R2	High	FR	Draft		x					x	
REQ-04055	Metering - Meter Data Management	MDMS shall allow hours of availability for performing remote disconnect to be Company configurable.		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x					x	
REQ-04056	Metering - Meter Data Management	MDMS shall have the ability to accept from CSS a remote connect / Disconnect request.		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x					x	
REQ-04057	Metering - Meter Data Management	MDMS shall send to AMI Head End remote connect request of the composite transaction no later than 8:00 on a request's date of execution if the CSS request is future dated for an RF meter. Note: Remote Disconnect will respect a medical flag, and not disconnect, if the company wants this.		DV - changed Command Center to AMI HE 6/16 New Feature - Remote Disconnect will respect a medical flag, and not disconnect, if the company wants this. IN 5.1 - today. 07/19 CSS flag Do Not Discconnect Accounts?	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x					x	
REQ-04058	Metering - Meter Data Management	CSS shall receive and queue the response from MDMS following the successful completion or failure of each part of a composite transaction.		DAL - Good	4/21/2022		[redacted]	0%	100%	R1	High	FR	Draft		x					x	
REQ-04059	Metering - Meter Data Management	MDMS shall receive a response following the success or failure of each part of a remote transaction.		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-04060	Metering - Meter Data Management	MDMS shall have the ability to accept from AMI HE a connect verification.		DV - changed Command Center to AMI HE	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-04061	Metering - Meter Data Management	MDMS shall store a connect verification from AMI HE.		DV - changed Command Center to AMI HE	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x	

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REQ-04062	Metering - Meter Data Management	MDMS shall send CSS a connect verification.		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft		x				x	
REQ-04063	Metering - Meter Data Management	MDMS shall have the ability to accept from CSS an on-demand read request.		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft		x				x	
REQ-04064	Metering - Meter Data Management	MDMS shall be able to collect, process and store following data for HES: kWh, demand, Time of Use, time of execution, and date of execution when an RF meter processes the on demand read command successfully.		DAL - Good DV - what is HES?	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x					x	
REQ-04065	Metering - Meter Data Management	MDMS shall update CSS with success or failure information for a remote transaction.		DAL - Good	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x				x	
REQ-04066	Metering - Meter Data Management	As part of remote connect/disconnect, MDMS shall send a voltage error to CSS upon receipt of the voltage error from a Head End.		DAL - Does CSS need voltage errors? Is this for remote connect? DV - did we get this resolved? Are all of these in PA today	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x				x	
REQ-04067	Metering - Meter Data Management	MDMS shall be able to send customer side abnormal voltage data to third party applications (such as AMI data analytics) in a predefined file format.		DAL - Does CSS need abnormal voltage data? Will be complete in design phase, Reword to: MDMS shall be able to send customer side abnormal voltage data to third party applications (such as AMI data analytics). Integrator will perform ETL if needed.	4/21/2022		[redacted]	0%	100%	R2	High	FR	Draft	x	x				x	
REQ-04068	Metering - Meter Data Management	MDMS shall be able to receive daily shift read request from CSS for final bill creation process.		DAL - Good, probably handled in PPLCO_MDM_SCHEMA	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					
REQ-04069	Metering - Meter Data Management	MDMS shall be able to provide daily shift read to CSS for final bill creation		DAL - Good, probably handled in PPLCO_MDM_SCHEMA	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					
REQ-04070	Metering - Meter Data Management	CSS shall send MDMS a remote cut-out disconnect composite transaction request to open a switch within a meter immediately after CSS accepts a "Pending Remote Cut" status from Infor and power is off at the premise.		DAL - Should be updated to replace MOM with correct system (Infor?)	4/21/2022	updated	[redacted]	0%	100%	R2	High	FR	Draft	x	x				x	
REQ-04071	Metering - Meter Data Management	MDMS shall be able to receive from MV90 and store multiple day data on a file that contains all of the intervals for each day and the anchor reads.		DAL - There is probably a better term than "mainframe file," since there will be no mainframe.	4/21/2022	updated	[redacted]	100%	0%	R1	High	FR	Draft						x	x
REQ-04072	Metering - Meter Data Management	MDMS shall have the ability accept working (actual) data from MV90 in a file format that contains the following data: - 5/15 minute values for all channels (kWh, KVARH, etc) for Elec -60 minute values for all channels (M3,GJ etc) for Gas -Meter serial number -Start time reading for the day -End time reading for the day		DAL - There is probably a better term than "mainframe file," since there will be no mainframe. Also, MDMS will receive 5-minute intervals from electric meters read by MV-90 and 60-minute intervals from gas meters 6/16 only certain files work with the SDX adapter 6/22 update Need to Request: What file format is exchanged from MV90 Gas to ERS? Please provide sample data.	4/21/2022	Updated	[redacted]	100%	0%	R1	High	FR	Draft						x	x
REQ-04073	Metering - Meter Data Management	MDMS shall have the ability to accept from MV90 a partial day record for an account on a file.		DAL - There is probably a better term than "mainframe file," since there will be no mainframe. Any concerns as worded?	4/21/2022	updated	[redacted]	100%	0%	R1	High	FR	Draft						x	x
REQ-04074	Metering - Meter Data Management	MDMS shall have the ability to generate a daily shift read when MDMS receives multiple day data that contains all of the intervals for each day and the anchor reads.		DAL - Good MDMS shall not omit an MV90 estimated read from the billing processes if an MV90 estimated read is a product of the MDMS VEE process. 07/18-Updated requirement with "Shall Not"	4/21/2022		[redacted]	40%	60%	R1	High	FR	Draft						x	
REQ-04075	Metering - Meter Data Management	MDMS shall NOT omit an MV-90 estimated read from the following billing processes if an MV-90 estimated read is a product of the VEE process: - Complex Billing Bolt-on Process - RTP / TOU Billing Process		DAL - Good	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft						x	
REQ-04076	Metering - Meter Data Management	MDMS shall have the ability to accept an estimated read from MV90 as actual (working) data when MDMS receives an estimated read from MV90.		DAL - Good Configurable	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft						x	x
REQ-04077	Metering - Meter Data Management	MDMS shall use an MV90 estimated read when MDMS receives estimates from MV90 for the following billing processes: - Complex Billing Bolt-on Process - RTP / TOU Billing Process		DAL - Good	4/21/2022		[redacted]	100%	0%	R1	High	FR	Draft						x	x

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REQ-04078	Metering - Meter Data Management	MDMS shall have the ability to accept from AMI Head End the following data: - Demand reset verification - Current peak demand (max KW) - Time of peak demand (max KW) - Current number of demand resets - Previous number of demand resets		DAL - Good	4/22/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x		
REQ-04079	Metering - Meter Data Management	MDMS shall send CSS the maximum KW received in the demand reset data from AMI Head End when MDMS sends CSS the billing read associated with a maximum KW.		DAL - Good	4/22/2022		[redacted]	0%	100%	R2	High	FR	Draft		x					x		
REQ-04080	Metering - Meter Data Management	The MDMS shall have the ability to report on and display manually read meters		DAL - Good	4/22/2022		[redacted]	100%	0%	R1	High	FR	Draft							x		
REQ-04081	Metering - Meter Data Management	MDMS shall apply an externally provided pricing stream [such as Locational Marginal Pricing (LMP), Loss Factor, EGS Supply Risk Factor, GRT Gross Up Factor)] to the kWh or kW data to create a calculated energy charge to be sent to CSS. Note: MDMS shall have the ability to manage TOU with multiple CPP event pricing information.		DAL - Should be release R5 6/16 Custom at PA PPL., sitting with engineering- same as settlement code.	4/22/2022	updated	[redacted]	100%	0%	R1	High	FR	Draft		x					x		
REQ-04082	Metering - Meter Data Management	MDMS shall have the ability transfer the total RTP charge (based on kWh used) and total usage to Company systems (CSS) and third-party systems (Supplier Portal).		DAL - Should be release R5 owner system is CSS, Other systems is supplier portal.	4/22/2022	Updated	[redacted]	0%	100%	R5	High	FR	Draft							x		
REQ-04083	Metering - Meter Data Management	MDMS shall be able to receive and store request file for RTP/TOU billing reads per four-day bill cycle from CSS		DAL - Should be release R5	4/22/2022	Updated	[redacted]	0%	100%	R5	High	FR	Draft		x					x		
REQ-04084	Metering - Meter Data Management	MDMS shall send CSS a response file with VEE'd RTP/TOU Billing data that is in the billing window		DAL - Should be release R5	4/22/2022	Updated	[redacted]	0%	100%	R5	High	FR	Draft		x					x		
REQ-04085	Metering - Meter Data Management	MDMS shall be able to support interval data aggregation into advanced rate structures such as CPP (critical peak pricing), TVR (time variant rate), RTP (real time pricing) programs in terms of meter read collection, validation and provisioning		DAL - Should be release R5 6/16 Custom at PA PPL., sitting with engineering- same as settlement code.Likely a customization. Would need to be finalized in project planning and workshops.	4/22/2022	Updated	[redacted]	0%	100%	R5	High	FR	Draft							x		
REQ-04086	Metering - Meter Data Management	MDMS shall have the ability to create billing determinant files for the following types of accounts: regular, complex billing, RTP,CPP and TOU.		DV - add DriveBy, large customer, TVR, TOU, CPP			[redacted]	0%	100%	R1	High	FR	Draft							x		
REQ-04087	Metering - Meter Data Management	MDMS shall use rate information and billing rules to determine that it shall calculate usage charges for RTP customers.		DAL - Should be release R5	4/22/2022		[redacted]	0%	100%	R2	High	FR	Draft							x		
REQ-04088	Metering - Meter Data Management	MDMS shall support VEE mechanism and make meter data available to Green Button (and for Green Button customer inquiries) within 24 hours.		What is faster VEE? Not intended to use faster VEE. Currently AMI data is scheduled 5x day. f a green button data is needed faster, RAW data will be streamed.			[redacted]	0%	100%	R2	High	FR	Draft							x		
REQ-04089	Metering - Meter Data Management	MDMS shall receive from CSS a request for Complex Billing meters and shall respond with Complex Billing readings and demands.				Added new requirement as suggested	[redacted]	40%	60%	R1	High	FR	Draft		x					x		
REQ-04090	Metering - Meter Data Management	MDMS shall receive common pre-defined formatted file from both MV-90 Gas and MV-90 Electric.				Added new requirement as suggested	[redacted]	100%	0%	R1	High	FR	Draft							x	x	
REQ-04091	Metering - Meter Data Management	When calculating Real Time Pricing bill determinants, MDMS shall save the backing sheet information, to be made available via the customer portal.		Is "backing sheet data" clear		Added new requirement as suggested	[redacted]	0%	100%	R2	High	FR	Draft							x		
REQ-04092	Metering - Meter Data Management	Parallel testing shall be performed to compare the CSS-bound output of MDMS to the CSS-bound output of AMR data collation system and ERS (current Rhode Island systems).		6/16 Need to tie effort to SOW. Intend to verify Tolerance with new MDMS system against AMR and MV-90 system -3 to 4 rounds of effort. For both electric and gas.		Added new requirement as suggested	[redacted]	100%	0%	R1	High	NFR	Draft		x					x		
REQ-04093	Metering - Meter Data Management	MDMS shall receive 15-minute interval electric meter read data from AMI Head End within 20 minutes from interval timestamp. MDMS should deliver this interval data to other applications within additional 10 to 25 minutes.		Not the correct process definition. Tie to Data Streaming Discussion Not sustainable within a 24 hour clock. This would require extracting and consuming 3 files per hour. During VEE, there will be a lag. When Gas is VE's there will be a lag.		Added new requirement as suggested	[redacted]	0%	100%	R2			Draft	x						x		
REQ-04094	Metering - Meter Data Management	MDMS shall receive 60 minute Gas interval meter read data from AMI Head End within 7 hours from interval timestamp. And MDMS should deliver this interval data to other applications within additional 1 hour.		Tie to Data Streaming Discussion		Added new requirement as suggested	[redacted]	0%	100%	R5			Draft	x						x		
REQ-04095	Metering - Meter Data Management	MDMS shall process and be ready with bill quality data (for both Electric and Gas) will be available after 24 hours.		Typically Electric is between 7 and 11 AM and Gas is just after noon.		Added new requirement as suggested	[redacted]	100%	0%	R2			Draft							x		
REQ-04096	Metering - Meter Data Management	MDMS shall import 24 months of meter reading data from RI systems.		DV - is this interval data and daily/midnight/register/monthly from ERS-MV90-AMR to MDMS? Assume 4 years 07/18 - Updated to 24 months	5/23/2022	Added new requirement as suggested	[redacted]	100%	0%	R1			Draft							x		

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REQ-04097	Metering - Meter Data Management	MDMS shall be able to store 18 months of metering data and delete any data older than 18 months after it's confirmed that it is successfully stored in AMI cloud.		DV - see interface adds to the right Assume 4 years 07/18 - Updated to 2 Years	5/23/2022	Added new requirement as suggested	[redacted]	0%	100%	R1			Draft								
REQ-04098	Metering - Meter Data Management	MDMS shall provide a interface to move meter intervals, reads, and related data to the existing AMI Data Lake.		DV - new requirement, see interface adds to the right	5/23/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-04099	Metering - Meter Data Management	Title: MDMS Performance for loading billing determinants MDMS shall successfully load scheduled daily billing data based on the targets below: 100% of Interval usage Data aggregated in 3 hours processing time. 100% of Register Reads completed in 1 hour processing time.		SLA Are we doing this today for PA. What is the actual SLA time daily		Added new requirement as suggested	[redacted]	100%	0%	R2		NFR	Draft							x	
REQ-04100	Metering - Meter Data Management	Title: MDMS Performance for loading non billing channels MDMS shall successfully load scheduled non billing data based on the targets below: Target: 100% loaded by midnight.		SLA- Are we doing this today for PA Day +1		Added new requirement as suggested	[redacted]	100%	0%	R2		NFR	Draft							x	
REQ-04101	Metering - Meter Data Management	Title: MDMS Performance for loading meter data from MV90 system Target: 100% of valid data that the MV90 Head-end system(s) provide to MDMS is loaded within 30 minutes. There are approximately 2,100 MV90 meters currently		SLA- Are we doing this today for PA. SDX adapter can handle that, especially if the MV90 SDX was on a separate JVM.		Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft							x	
REQ-04102	Metering - Meter Data Management	Title: MDMS VEE Performance Target: MV90 data VEE complete in 15 minutes processing time. 100% of Interval Data completed in 2 ½ hours processing time. 100% of Register Reads completed in 1 hour processing time.		SLA- Is system sized to do this ? Dichotomy		Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft							x	
REQ-04103	Metering - Meter Data Management	Title: MDMS Billing Performance MDMS will provide 100% of the required billing determinants. Target: 100% of Billing Reads provided by 4:30 PM daily.				Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft							x	
REQ-04104	Metering - Meter Data Management	Title: MDMS Meter Alarm Performance Configured Meter alarms and events from Head End System for which MDMS is the system of record: Target Percentage: 100 00% configured alarms within 1 hour				Added new requirement as suggested	[redacted]	40%	60%	R2		NFR	Draft							x	
REQ-04105	Metering - Meter Data Management	Title: MDMS Data Synchronization with CIS Target: CIS nightly synchronization should complete by 0400 daily. Note: Synchronization data to be provided to the MDMS by Midnight.		SLA_ Are we doing this today for PA		Added new requirement as suggested	[redacted]	100%	0%	R1		NFR	Draft		x					x	
REQ-04106	Metering - Meter Data Management	Title: MDMS Settlement Performance Metrics - Daily Energy Backcast Daily Backcast job will complete within 60 minutes Title: MDMS Settlement Performance Metrics - Energy Forecast Energy forecast job will complete within 60 minutes Title: MDMS Settlement Performance Metrics - Load Zonal Data Load zonal data job will complete within 1 minute Title: MDMS Settlement Performance Metrics - Load Weather Data Load Weather data job will complete within 1 minute Title: MDMS Settlement Performance Metrics - Resettlement Settlement B (resettlement) job will complete within 120 minutes Title: MDMS Settlement Performance Metrics - Tag Creation Tag creation job (annual process) will complete within 120 minutes Title: MDMS Settlement Performance Metrics - Daily Tags Daily Capacity Tag job will complete within 60 minutes Title: MDMS Settlement Performance Metrics - Rate Revenue Class Data Rate revenue class job (data to CSS) will complete within 5 minutes Title: MDMS Settlement Performance Metrics - Tag Updates Tag change update job (data to CSS) will complete within 5 minutes PPL states these are ahcievable today in the PA environment. Need L+G infrastructure and Prod Mgmt/Eng to review/sign off		Will not happen, will need to use load profiles.		Added new requirement as suggested	[redacted]	0%	100%	R1		NFR	Draft							x	
REQ-04107	Metering - Meter Data Management	System shall have the ability to properly handle daylight savings including the duplicate hour in the fall, the missing hour in the spring, internal and user interface representation, and representation in interfaces to other applications.		Anything to be concerned with here?, Need to discuss system component and configuration of each device.			[redacted]	100%	0%	R1	High	NFR	Draft							x	
REQ-04108	Metering - AMI	AMI HE shall able to support ad-hoc and scheduled request for on-demand read and demand reset requests from Owner systems	Bill H				[redacted]	0%	100%	R2	High	FR	Draft	x	x						
REQ-04150	Metering - Meter Data Management	MDMS shall fully synchronize with CSS at least once a week insuring ongoing matching of MDMS to CSS. This includes many things mastered in CSS including Account at Premise, Meter Number, Rate Class, Electric Supplier, Gas Supplier both current and historical, Install and removal reads.		DAL - Good	7/26/2022	added for CSS FULL SYNC	[redacted]	80%	20%	R1	High	FR	Draft		x					x	

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REQ-04151	Metering - Meter Data Management	MDMS shall receive the Service to transformer relationship from CSS and maintain the same.		DAL - Good	7/26/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-04152	Metering - Meter Data Management	MDMS shall provide the CDI Fixed Strata to CSS.		DAL - Good	7/26/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-05003	Metering - MV90	MV90 meter data will support customer billing as well as interval based interchange accounting (tie lines, generators, etc), often requiring combination of multiple meters and multiple channels to derive the final values for customer billing and interchange.		DV new one, combine with the next couple to insure complete. DV - mixing up the application and number schemes by putting MV90 in the MDMS section?		Added New requirement as suggested	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05004	Metering - MV90	MV90 shall send MDMS estimated MV90 data when data is determined irretrievable from an MV90 meter.			4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-05005	Metering - MV90	For all MV90 installations, the Meter Installer shall call MV90 Operations to communicate a final read of the meter before removing the MV90 meter from the premise.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05006	Metering - MV90	MV90 shall connect MV90 meters/recorders to retrieve interval data, register data and event data via dial-up or PSTN or TCP/IP based communications.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05007	Metering - MV90	MV90 shall load the following data for MV90 meters onto one file on business days: -5/15 minute values for all channels (kWh, KVARH, etc) for Electric -Recorder ID - 60 minute values for all channels(M3,GJ etc) for Gas -Start time reading for the day -End time reading for the day		DAL - I am not sure about the word "mainframe." MV90 should provide 5-minute values for electric meters read by MV90 and 60-minute values for gas meters.	4/25/2022	updated	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05008	Metering - MV90	Output from both MV-90 Gas and MV-90 Electric shall use the same data format for passing data to the MDMS that contain the following data: -5/15 minute values for all channels (kWh, KVARH, etc.) for elec -60 minute values for all channels(M3,GJ etc) for Gas -Meter serial number -Start time reading for the day -End time reading for the day **Output from both MV-90 Gas and MV-90 Electric shall use the same data format for passing data to the MDMS that contain the following data: NOTE: It is likely that the export format will not be identical due to the differences between electric and gas data. The data may have to be "massaged" prior to being input into the MDMS. -5/15 minute values for all channels (kWh, KVARH, etc.) for Electric - Recorder D -60 minute values for all channels (M3, GJ etc.) for Gas -Start time reading for the day -End time reading for the day		DAL - Very good. MV90 should provide 5-minute values for electric meters read by MV90 and 60-minute values for gas meters.	4/25/2022	updated	[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-05009	Metering - MV90	MV90 shall have the ability to perform validation of interval and register data based on the configurable criteria receive from both MV90 Electric and MV90 Gas meters		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05010	Metering - MV90	MV90 shall have the ability to perform the estimation of interval and register data when data is determined irretrievable from an MV90 meters.		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05011	Metering - MV90	MV90 shall have the ability to perform editing or adjustment of data receive from both MV90 Electric and MV90 Gas meters		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05012	Metering - MV90	MV90 shall send MDMS estimated MV90 data when data is determined irretrievable (missing read) from an MV90 meter.		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-05013	Metering - MV90	MV90 shall have the ability to perform validation, estimation and editing of meter data receive from both MV90 Electric and MV90 Gas meters		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05014	Metering - MV90	MV90 shall receive and store MV90 meter channel data from multiple channels. The number of channels should be configurable supporting a maximum number of 48 channels. **MV90 shall receive and store MV90 meter channel data from multiple channels. The number of channels should be configurable supporting a maximum number of 16 channels.		DAL - Good. Can someone confirm the number of channels?	4/25/2022	Updated	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05015	Metering - MV90	MV90 shall receive and store an indicator for channels for generation meters with differentiators between delivered, received, or generation from MV90 meters. **(Electric System Only)		DAL- Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05017	Metering - MV90	MV90 shall have the ability send full or partial record for an account to MDMS/CSS		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft		x					x	x
REQ-05018	Metering - MV90	MV90 shall have the ability to send to MDMS / CSS multiple day data file that contains all of the intervals for each day and the anchor reads.		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft		x					x	x
REQ-05019	Metering - MV90	MV90 shall have the ability to send meter read data to profiling & forecasting systems.		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05020	Metering - MV90	MV90 shall have the ability to send meter read data to MDMS, which in turn provides the data for Retail and wholesale settlement systems.		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-05021	Metering - MV90	MV90 shall have the ability to receive interval meter read data from AMR data collection system		DAL - I don't think this is a requirement.	4/25/2022	Removed	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05022	Metering - MV90	MV90 shall have the ability to receive meter read data from AMR data collection system **MV90 shall have the ability to receive meter read data from AMR data collection system Note: MV-90 xi will not import just meter read data from an AMR system but will bring back data if load profile data is present. ***MV90 shall have the ability to receive meter read data from AMR Meter Reading System		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05023	Metering - MV90	MV90 shall have the ability to send meter read data for Gas meters to other third party system (TSA-RI in exiting RI solution)		DAL - Good	4/25/2022	Need to discuss with TCS Team	[redacted]	100%	0%	R1	High	FR	Draft							x	x
REQ-05024	Metering - MV90	MV90 shall have the ability to dial the meter reads via schedule and manual process **MV90 shall have the ability to initiate meter interrogation calls via schedule and manual process		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05025	Metering - MV90	MV90 shall have the ability to send meter read data for Elec meters to other third party system		DV - add a requirement for Gas meters?			[redacted]	100%	0%	R1			Draft								x

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REQ-05026	Metering - MV90	MV90 shall have the ability to service interrogation for on-demand ping **MV90 shall have the ability to service interrogation for on-demand ping Electric system only. Gas meters are programmed to call into MV-90 xi and MV-90 xi cannot interrogate these meters on demand.		DAL - Good DV - I'm ok keeping this, but PA and RI don't have this today?	5/23/2022	Added new requirement as suggested	[redacted]	100%	0%	R1			Draft								x
REQ-05027	Metering - MV90	System shall have the ability to properly handle daylight savings including the duplicate hour in the fall, the missing hour in the spring, internal and user interface representation, and representation in interfaces to other applications.			5/31/2022	Added new requirement as suggested	[redacted]	100%	0%	R1	High	FR	Draft								x
REQ-05028	Metering - MV90	Place holder requirment Need to: determine communications infrastructure for MV90 Gas and Electric, what additional hardware or devices are needed for the communication			6/1/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-05029	Metering - MV90	All yesterday's MV90 readings and intervals need to be in and available to MDMS by 5:00AM Est each day **All yesterday's MV90 readings and intervals whose data has successfully validated needs to be in and available to MDMS by 5:00AM Est each day					[redacted]	100%	0%	R1	High	NFR	Draft							x	x
REQ-05030	Metering - MV90	The field technician shall have the ability to probe MV90 Meters when unable to communicate through MV-90 xi remotely, using MVLT xi optical probes and software installed on laptops.					[redacted]	100%	0%	R1	High	NFR	Draft								
REQ-06002	Metering - AMI	The system shall provide the ability to monitor/detect flicker power quality issues from AMI Head End. *Require more details if the function is required. Also add specifics	Chris	DV - ?? Requires Discussion to create requirement	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	Medium	FR	Draft								
REQ-06003	Metering - AMI	The system shall provide the ability to identify power quality issues in near real time with data from AMI Head End e.g. sags/swell events from AMI HE. *Require more details if the function is required	Chris	DV - the meter provides sags/swell events, it can also provide the actual voltage. The AMI shall have the ability to provide these to ADMS. 6/16- intend to deliver to ADMS, via MDMS . .	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft								
REQ-06004	Metering - AMI	The system shall provide the ability to identify power quality issues in near real time including voltage transients issues from AMI Head End data. *Require more details if the function is required	Chris	DV - ?? Requires Discussion to create requirement	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft								
REQ-06005	Metering - AMI	The system shall be capable of receiving power quality Location data from the AMI Head End system *Require more details	Chris	DV - ok, not sure it is needed. Requires Discussion to create requirement	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft								
REQ-06011	Metering - Meter Data Management	The system shall report on the number of certified AMI meters installed (Certified Typically means x days of continuous reads received by MDMS) ** For deployment phase		DAL - Good			[redacted]	0%	100%	R3	High		Draft								
REQ-06014	Metering - AMI	The total amount of AMI meters that haven't communicated any reads through last 24 hours verses total amount of AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Requires Discussion to create requirement	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-06015	Metering - AMI	Actual Meters encrypted with respect to expected meters encrypted for a given time period, only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Requires Discussion to create requirement	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-06017	Metering - AMI	The total count of AMI meters that have reported a read from Head end, but is not associated to a premise with an install status. This is calculated daily.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Requires Discussion to create requirement	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft	x							

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REQ-06019	Metering - Asset & Inventory	The percentage of installed AMI meters that have been identified as having defects for module or meteorology of meter- will need to replace with another AMI meter or reprogrammed.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft	x				x	x		
REQ-06020	Metering - AMI	The percentage of AMI meters that have received GPS coordinates in the Head End.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Requires Discussion to create requirement	5/23/2022		[redacted]	0%	100%	R3	Medium	FR	Draft	x							
REQ-06021	Metering - Asset & Inventory	Number of meters that have cleared both meter shop and PUC testing, only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft					x	x	x	
REQ-06023	Metering - Meter Data Management	The total amount of AMI Meter Accounts that do not have a Daily Read within the billing window; or The Daily Read was not used for billing divided by the total amount of AMI Meters deployed from the previous month, which results in an estimated first bill.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Update to: The total amount of AMI Meter Accounts that do not have a Daily Read within the billing window; or The Daily Read was not used for billing divided by the total amount of AMI Meters deployed from the previous month, which results in an estimated first bill.	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft		x					x	
REQ-06024	Metering - AMI	The total amount of AMI meters that are not active meters and are not expecting a read. Unavailable meters are being removed from the denominator of the AMI Meter Read % KPI.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft							x	
REQ-06025	Metering - Customer Services	Number of unique AMI-related calls in RI's call center; AMI Service Level per call center;	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft	x	x						

Redacted

REQ-06026	Metering - Asset & Inventory	Identify removed meters that have an As Found accuracy greater than the As Left data, the source data will be from Infor.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	40%	60%	R2	High	FR	Draft					x	x		
REQ-06027	Metering - Customer Services	Total number of CSS Orders (Connect, Disconnect, Cut-In, Cut-Out) and any associated flags with Date and Time Stamps.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	40%	60%	R2	High	FR	Draft		x						
REQ-06028	Metering - AMI	The total amount of meters that have consumption for disconnected meter with date timestamp.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R2	High	FR	Draft	x							
REQ-06029	Metering - Customer Services	The age of all AMI-related complaints pending in days. The age in days of all AMI Meter + High Bill Miscellaneous workflow managements	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft		x						
REQ-06030	Metering - Asset & Inventory	The total amount of available meters (tested and ready for installation) in inventory, the source data will be from Infor.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	50%	50%	R2	High	FR	Draft				x				
REQ-06034	Metering - Asset & Inventory	This metric will provide the failure count of the comms Module. # of failed comms modules returned for testing Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft			x					
REQ-06035	Metering - Asset & Inventory	This metric is to track the count of error codes that are not visible on the meter display returned for testing Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft			x					

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REQ-06036	Metering - AMI	This metric is to track the performance of over the air programming to ensure the meters have the correct program Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. f things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. t is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-06037	Metering - Customer Services	This metric is to track the failure rate of the remote connect / disconnect switch with respect to meter models Only applicable for AMI meters.		BH - talk to Vicki Kocsi - she has this buitl in Power BI but Vicki is the SME for RCDDV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. t is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x	x					x	
REQ-06038	Metering - AMI	This metric is to confirm the voltage is within +/- 5% tolerance of nominal voltage Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. f things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Need discussion to under use case. Time duration is also required to be defined. Is there a time duration that needs to be configured. Possibly +/-10%. How many intervals are outside of tolerance? Maybe inplemented in the meter rather than the headend.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft							x	
REQ-06039	Metering - Customer Services	Metric to provide average, shortest and longest processing time . Calculate processing time from: 1) Start Connect Time to Successful Connect Time 2) Start Disconnect Time to Successful Disconnect Time Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. f things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. t is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x	x					x	
REQ-06040	Metering - AMI	Amount of time that an endpoint is out of communications over a period of time Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. f things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Need discussion to under use case. Time duration is also required to be defined if this even possible . Need minimum non communicating time to report on. PA AMO process to be replicated	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x							

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REQ-06043	Metering - Meter Data Management	The total count by age of MDMS VEE Exceptions (yesterday, prior to yesterday, 2 months, 3 months, 4 months)	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Discuss further	5/23/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-06045	Metering - AMI	Combined availability of RF Mesh Network devices aka AMI network components. % availability = time available / length of time of period measured	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Potential FND report to discuss further .	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-06047	Metering - AMI	Validation that the Remotely disconnected meters in CSS is inline with meters in disconnect status on AMI network. Count of Remotely disconnected meters in CSS vs Count of remotely disconnected meters in CC	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x	x					x	
REQ-06050	Metering - Meter Data Management	Interval Read Performance Percent - The percentage of intervals received for meters for the previous day. Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R2	High	FR	Draft							x	
REQ-06051	Metering - Meter Data Management	The percent and count of meters in the bill group that reported at least one register read during the billing window reported by bill group. Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R2	High	FR	Draft		x					x	
REQ-06052	Metering - Meter Data Management	Register Reading Performance for both the percent and count. Only applicable for AMI meters.	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R2	High	FR	Draft		x					x	

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REQ-06053	Metering - Customer Services	The total count of AMI Meters that have been disconnected for various reasons i.e. manually blocked, cut at the poll or remotely blocked (open switch).	DV	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	0%	100%	R3	High	FR	Draft		x						
REQ-06060	Metering - AMI	Identify mismatched meter to transformer. Use interval meter data to fix meter-to-transformer topology Only applicable for AMI meters.	Bill H	BH - this was done thru the Network Model Validator. Is that REQ elsewhere - if yes, this is not needed here. DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. 6/16- is the HES, MDMS or AGA doing this? Is done in Feeder to Transformer Load handled in PA data lake. MDM would provide data. Potential for the meter to notify if transformer mismatched. Today this AGA Meter to transformer mapping e/ separate licensing With AMO team, to be discussed on 6/27..... Currently doesn't use MDMS for this. Licensed Tools like Electric Facility Database/ OMS used for this function. The ability to provide voltage and interval meter data to support analytics to identify mismatched meter to transformer. Move to R6 Future. Idea to move network validator.	5/23/2022 ,6	updated	[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-06061	Metering - Meter Data Management	MDMS shall have the ability to provide data extracts to support: Usage analysis Customer Load Pattern Analysis Customer Peak Analysis Identify customers with distributed generation Only applicable for AMI meters.	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Discuss use case further, Are we doing this today- 06/21- DG is done today. Customer peak Analysis - today is a Meter focus.- Complex biiling, Monhtly peak , daily Peak - Customer Load pattern and Usage Analysis require further work . May tie to other requirements witihn document . From AMI-OT team - possibly KPI's. PPL-RI to check in with AMI--OT .. Usage Analysis/Customer PA: it's a manual ops and we take a look at MDMS DB Identify Customer: Mastered in CSS and then comes back/stored in MDMS Req L+G : Reporting requirement. Graphical view of Interval usage data for a customer or group of any customers. <CLPA>	5/23/2022 ,6	updated	[redacted]	0%	100%	R3	High	FR	Draft		x					x	

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REQ-06065	Metering - AMI	Meter temperature monitoring and analysis Only applicable for AMI meters.	Bill H	BH - check w/Greg Saunders on this - he works with Hi Temp the most. on the Power BI dashboard to. DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.6/16- is the HES, MDMS or AGA doing this? Is done in Feeder to Transformer Load handled in PA data lake. MDM would provide data. Potential for the meter to notify if transformer mis matched. Today this AGA Meter to transformer mapping e/ separate licensing With AMO team, to be discussed on 6/27 Use Standard L+G process.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft	x							
REQ-06067	Metering - Meter Data Management	MDMS shall provide the ability to access the meters multiplier L+G: MDMS shall provide the ability to programatically access all meters multipliers.	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Cannot do this over VPN. - Need to define process . Need more details. But this sounds like an exception handling process that someone would manually need to correct. Might be able to set some sort of usage threshold for certain account types in MDMS, which would then flag a VEE exception. 06/21 - Info flows CSS to MDMS- can do this, the how this occurs would be covered in the DSE discussions with CSS team on how to implement. (expect file based implementation not database links)	5/23/2022		[redacted]	40%	60%	R2	High	FR	Draft		x					x	
REQ-06068	Metering - Meter Data Management	MDMS shall have the ability to detect abnormal gas spikes using configured VEE thresholds	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Does routine in MDM exist? Do we support 06//21- Might need to develop a Gas VEE test. (hi/lo, usage over a period) for usage spilkes. -	5/23/2022		[redacted]	40%	60%	R2	High	FR	Draft							x	

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REQ-06071	Metering - Meter Data Management	Develop residential end use energy estimates using interval meter data ~~Only applicable for AMI meters.~~	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Confirm what this mean for R3. 07/21 NA for L+G	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft								
REQ-06073	Settlement-RL	MDMS will use Static Load profile for VEE	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	40%	60%	R1	Medium	FR	Draft							x	
REQ-06078	Metering - Meter Data Management	Identify active gas meters showing no consumption over a specified period of time	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data.	5/23/2022		[redacted]	40%	60%	R1	High	FR	Draft							x	
REQ-06079	Metering - Meter Data Management	Calculate transformer loading using customer interval meter data. Insight on impact of additional load on existing transformer Only applicable for AMI meters.	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data... Does this exist today in MDM , other application? AMO. PLL "CO-MDM" schema supplier switch (uses ODR), RCRD, special reads,standard billing. Distribution group/design supervisor, who uses this? Chris Menges.Brian Houser Does this exist today in MDM , other application? AMO. PLL "CO-MDM" schema supplier switch (uses ODR), RCRD, special reads,standard billing 07/21 Distribution group/design supervisor, who uses this? Chris Menges.Brian Houser. Run manually once a month	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft							x	
REQ-06080	Metering - Meter Data Management	Identify service points where electric meter has been removed but gas meter is still active	Bill H	DV - There is no Meter Data and Reporting application. If things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. It is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. Do we do this today? Need to discuss	5/23/2022	updated	[redacted]	40%	60%	R2	High	FR	Draft							x	

Redacted

REQ-06081	Metering - AMI	Identify Energy Bypassing meter using kW and Voltage data Only applicable for AMI meters.	Bill H	DV - There is no Meter Data and Reporting application. f things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. t is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. ..Covered under Revenue protection. A report run by Matt Web and shared with RP group.Jared Lesko(rp). Not a report built by L+G. Matt Webb - Consumption on inactive meter report.. Pulling Data from MDM and running somewhere else. 07/21 -Covered under Revenue protection. A report run by Matt Web and shared with RP group.Jared Lesko(rp). Not a report built by L+G. Matt Webb - Consumption on inactive meter report.. Pulling Data from MDM and running somewhree else.	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft							x	
REQ-06082	Metering - AMI	Identify meters with repeated sustained outages and momentary outages Only applicable for AMI meters.	Bill H	DV - There is no Meter Data and Reporting application. f things are needed for Operations we need to get the data from AMI HE and MDMS? or one of the other systems. So far the AMI Data Lake is a repository for meter data. t is not used or advertized as a Reporting solution. These should be requirements on the application that has the data. .. Two inhouse report/ weekly report/ power up and power down report. The report runs 4 times a day and runs on 100k meters, which are connected with the transformer. This is built in Power Bi and connected to MDMS. L+G just need to expose the command centre and MDMS data. 07/21 Two inhouse report/ weekly report/ power up and power down report. The report runs 4 times a day and runs on 100k meters, which are connected with the transformer. This is built in Power Bi and connected to MDMS. L+G just need to expose the command centre and MDMS data	5/23/2022	updated	[redacted]	0%	100%	R3	High	FR	Draft								
REQ-06087	Metering - AMI	AMI Head End shall receive a request to enable an In Home Device (IHD) to be paired or unpaired from a Owner (Owner internal portal) or third party system and transfer the request to the Head End.	DV	DV - changed this to AMI HE, was MDMS. ok now, keep it all this needs review. We want to keep this simple, we expect minimal adoption. Discuss - Revelo is WIFI , a similar requirements is above	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x						x	
REQ-06088	Metering - AMI	MDAMI Head End shall receive a successful IHD "pairing" or "un-pairing" response from the Meter.	DV	DV - changed this to AMI HE, was MDMS. ok now, keep it all this needs review. We want to keep this simple, we expect minimal adoption. Is this written correct? Need to also write around Revelo and WiFi.	5/25/2022		[redacted]	0%	100%	R3	High	FR	Draft	x						x	

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REQ-06089	Metering - Meter Data Management	MDMS shall receive Power Up/Down alerts from AMI HE (AMI meters), process them to eliminate false alarms, insure at least 2 customers under a transformer have a power down, and then report the power downs and outage information to OMS. Power Ups and Downs received in MDMS more than X minutes after it was sent by the meter should be skipped by this processing as they indicate a potential false alarm, with X being something like 15 minutes. User configuration should be able to disable and enable these messages to OMS at any time.	DV	DV -We missed the MDMS-SDOM capability, it came after the MV requirements. Any concerns with this as written..	5/25/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-07001	Metering - AMR	AMR data collection system shall be capable to capture meter read data for both Electric and Gas AMR meters via data collection handled system based on the route provide by CSS		DAL - Good	4/25/2022	Updated	[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-07002	Metering - AMR	AMR data collection system shall be capable to capture event data for both Electric and Gas AMR meters via data collection handled system based on the route provide by CSS		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-07003	Metering - AMR	AMR data collection system shall be capable to capture meter data and event data for mass market AMR meters		DAL - Good	4/25/2022	updated	[redacted]	100%	0%	R1	High	FR	Draft		x					x	
REQ-07004	Metering - AMR	AMR data collection system shall have the ability to collect meter reads and event data from different handheld / mobile devices accurately and reliably via open protocol		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07005	Metering - AMR	Data collection handheld / mobile devices shall have the ability to integrate with all meter types currently in use at RI from different manufacturers (i.e. Itron, Honeywell, L&G, etc)		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07006	Metering - AMR	Data collection handheld / mobile devices shall have the ability to captured meter reads in drive-by and walk-by modes including keyed data entry for visual reads (having 18,000 meter where need visual reading).		DAL - Good	4/25/2022	Updated	[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07007	Metering - AMR	Data collection handheld / mobile devices shall have the ability to collect, view based on the route map for both drive-by and walk-by modes **Data collection mobile devices shall have the ability to collect, view based on the route map for both drive-by modes		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07008	Metering - AMR	Data collection handheld / mobile devices shall have the ability to collect, view without having route map (in case of exceptional scenarios) for both drive-by and walk-by modes **Data collection mobile devices shall have the ability to collect, view without having route map (in case of exceptional scenarios) for both drive-by modes		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07009	Metering - AMR	Data collection handheld / mobile devices shall have the ability to probe AMR meters to get the data from meters		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07010	Metering - AMR	Data collection handheld / mobile devices shall have the ability to connect bi-directional mode with AMR data collection system both via wired or wireless network to download route information and upload meter reads, event data.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07013	Metering - AMR	AMR data collection system shall be capable of collecting data in respective proprietary (PP4, HDL/HUL, etc.) format from various data collection handheld / mobile devices with different manufacturers. System will process and convert into a common format (i e. CSV, XML, etc.). **AMR Meter Reading System shall be capable of collecting data in respective proprietary (PP4, HDL/HUL, etc.) format from various data collection handheld / mobile devices with different manufacturers. System will process and convert into a common format (i e., CSV, XML, etc.).		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07014	Metering - AMR	AMR data collection system shall enable data acquisition from different AMR configuration schemes (meter configuration, business configuration) **AMR Meter Reading System shall enable data acquisition from different AMR configuration schemes (meter configuration, business configuration)		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07015	Metering - AMR	AMR data collection system shall have the ability to collect in both scheduled batch mode as well as in the on-demand mode. **AMR Meter Reading System shall have the ability to collect in both scheduled batch mode as well as in the on-demand mode.		DAL - Let's keep this, but I am not sure we need on-demand mode.	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07016	Metering - AMR	AMR data collection system shall allow to configure reading cycles for either individual meters or groups of meters. Appropriate time windows for data collection from different meters based on location/type can be set. The data collection shall be monthly basis. **AMR Meter Reading System shall allow to configure reading cycles for either individual meters or groups of meters. Appropriate time windows for data collection from different meters based on location/type can be set. The data collection shall be monthly basis.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07017	Metering - AMR	AMR data collection system shall be capable to collect and store following data from the meters - - consumption Data, - Load survey profiles, - Tamper data, - Date and time of collection of data at the time of collection **AMR Meter Reading System shall be capable to collect and store following data from the meters - - consumption Data, - Load survey profiles, - Tamper data, - Date and time of collection of data at the time of collection		DAL - Good	4/25/2022	updated	[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07018	Metering - AMR	AMR data collection system shall be capable to collect 15-minutes and 60-minutes interval data. **AMR Meter Reading System shall be capable to collect 15-minutes and 60-minutes interval data.		DAL - Good DV - Are there any 5 minute intervals on the AMR system?	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07019	Metering - AMR	AMR data collection system shall have facility to enter manual readings & associated data with appropriate user identification, security and audit trail only for the exceptional scenarios. **AMR Meter Reading System shall have facility to enter manual readings & associated data with appropriate user identification, security and audit trail only for the exceptional scenarios.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07021	Metering - AMR	AMR data collection system shall perform technical validation for meter read with respect to format, data type and data chunk size and invalid dataset **AMR Meter Reading System shall perform technical validation for meter read with respect to format, data type and data chunk size and invalid dataset		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								

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REQ-07022	Metering - AMR	AMR data collection system shall be able to capture alert/event data faults and errors either at device level or business operation level. **AMR Meter Reading System shall be able to capture alert/event data faults and errors either at device level or business operation level.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07023	Metering - AMR	AMR data collection system shall be able to determine alert/events correlating data collected from field, business data available in the system. **AMR Meter Reading System shall be able to determine alert/events correlating data collected from field, business data available in the system		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07024	Metering - AMR	AMR data collection system shall be logged for audit purposes **AMR data collection system shall be logged for audit purposes		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	NFR	Draft								
REQ-07025	Metering - AMR	AMR data collection system shall be logged all data state transition for audit trail **AMR data collection system shall be logged for audit purposes		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	NFR	Draft								
REQ-07026	Metering - AMR	AMR data collection system shall be able to synchronize the date and time of all meters to a common fixed reference. **AMR data collection system shall be logged for audit purposes		DAL - I am not sure this is a requirement.	4/25/2022	Confirm with RI	[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07027	Metering - AMR	AMR data collection system shall be able to receive the meter reading cycle data from MDMS/CSS system via pre-defined formatted file i.e. CSV, XML. (for both Elec & Gas) **AMR Meter Reading System shall be able to receive the meter reading cycle data from MDMS/CSS system via pre-defined formatted file i e., CSV, XML. (For both Elec & Gas)		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft		X					x	
REQ-07028	Metering - AMR	AMR data collection system shall be able to send the meter reading, interval data, and event data to MDMS system via pre-defined formatted file i.e. CSV, XML. (for both Elec & Gas) **AMR Meter Reading System shall be able to send the meter reading, interval data, and event data to MDMS system via pre-defined formatted file i.e., CSV, XML. (For both Elec & Gas)		DAL - Good DV - I added "interval data"	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft		X					x	
REQ-07029	Metering - AMR	AMR data collection system shall be able to receive route details from CSS via pre-defined formatted file i.e. CSV, XML. **AMR data collection system shall be able to receive route details from CSS via pre-defined formatted file i e. CSV, XML.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft		x					X	
REQ-07030	Metering - AMR	AMR data collection system shall have canned reports for meter ops - meter event data transformer aggregation data for demand and usage, zone lever data, meter read performance report, meter issues report **AMR Meter Reading System shall have canned reports for meter ops - meter event data transformer aggregation data for demand and usage, zone lever data, meter read performance report, meter issues report		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07031	Metering - AMR	AMR data collection system shall be capable to process meter data at frequency of at least once in 24 Hours. AMR Meter Reading System shall be capable to process meter data at frequency of at least once in 24 Hours.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07032	Metering - AMR	AMR data collection system shall support multiple channels for multiparameter such as Voltage, Current, Frequency, Energy, Energy demand, performance indicator and event related data **The channels could hold direct measured data, derived (calculated) data, or data imported from external sources. The number of channels should be configurable supporting a maximum number of 12 channels.		DAL - Good	4/25/2022	Updated	[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07033	Metering - AMR	AMR data collection system shall support channels of different time granularities, i e. hourly, daily, monthly etc. **AMR Meter Reading System shall support channels of different time granularities, i.e., hourly, daily, monthly etc.		DAL - Good	4/25/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07034	Metering - AMR	The AMR data collection system shall be able to send wake-up tones to gas meters equipped with ERTs.c **The AMR Meter Reading System shall be able to send wake-up tones to gas meters equipped with ERTs.		DAL - Good		New requirement added	[redacted]	100%	0%	R1	High	FR	Draft								
REQ-07035	Metering - AMR	System shall have the ability to properly handle daylight savings including the duplicate hour in the fall, the missing hour in the spring, internal and user interface representation, and representation in interfaces to other applications.					[redacted]	100%	0%	R1	High	NFR	Draft								
REQ-08001	Metering - Advanced Outage System Support	The system shall have ability to request to AMI Head End and receive a response after pinging a single meter with in 30 seconds with a 95% accuracy.		DAL - I am not sure what you mean by "99% degree of accuracy." A single meter ping should return within 30 seconds at 95% of the time.	4/27/2022	UPDATED	[redacted]	0%	100%	R2	High	NFR	Draft	x							
REQ-08002	Metering - Advanced Outage System Support	The system shall have ability to ping a list of AMI meters to determine power status		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft	x							
REQ-08003	Metering - Advanced Outage System Support	The system shall have ability to manually ping a current list of single outages from OMS as a batch and then view the ping outage status results.		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft	X							
REQ-08006	Metering - Advanced Outage System Support	The ADMS' ping feature shall have the ability to identify if a meter is AMI or AMR in order to determine. the correct method to ping		DAL - This probably needs some rewording. First, it wouldn't be the system (ADMS/OMS) that should have that ability; it would be the ping interface. Second, AMR meters would not be pinged.	4/27/2022	Leaving it further review	[redacted]	0%	100%	R2	High	FR	Draft	X						x	
REQ-08007	Metering - Advanced Outage System Support	The system shall have ability to configure the number of individual Ping requests submitted to the network for processing		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft								
REQ-08008	Metering - Advanced Outage System Support	The ability to ping a meter by meter number, OMS Event ID, ~~premise number, meter no and account number~~.		DAL - I don't know what an OMS Event ID is. I think that meter number and meter no are the same thing. I don't know that there is a need to be able to ping by premise or account number.	4/27/2022	Updated	[redacted]	0%	100%	R2	High	FR	Draft	x							
REQ-08009	Metering - Advanced Outage System Support	Outage Management will have the ability to store last gasp and power-up data from AMI meters with date and time stamp.		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft	x						x	
REQ-08011	Metering - Advanced Outage System Support	Outage Management will have the ability to filter out last gasps of the AMI meters.		DAL - I am not sure what "filter out" means. There will be no last gasps from AMR meters.	4/27/2022	updatedelaborate filter out	[redacted]	0%	100%	R2	High	FR	Draft							x	

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REQ-08012	Metering - Advanced Outage System Support	Outage Management will have the ability to run the Transformer, Fuse, and Circuit Analysis function from the ping results to identify if is a nested outage or a phantom outage.		DAL - I am not sure which function we are talking about. However, it should be able to request a ping of a transformer or protective device.	4/27/2022	updated	[redacted]	0%	100%	R2	High	FR	Draft								
REQ-08013	Metering - Advanced Outage System Support	Outage Management will have the ability to create the OMS Outage Preview report from the meter read , alert and ping response data from AMI ~~and AMR meters~~.		DAL - I don't think it will receiving meter reads, and it won't be receiving anything from AMR meters.	4/27/2022	Leaving it further review	[redacted]	0%	100%	R2	High	FR	Draft								
REQ-08014	Metering - Advanced Outage System Support	Outage Management will have the ability to escalate or cancel a event based on ping status ~~or meter read data~~ .		DAL - I wouldn't include "meter read data."	4/27/2022	Leaving it further review	[redacted]	0%	100%	R2	High	FR	Draft								
REQ-08015	Metering - Advanced Outage System Support	The ability to ping a random sub set of meters attached to device and use the results to determine if the device is experiencing an outage.		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft								
REQ-08016	Metering - Advanced Outage System Support	The system shall have ability to update OMS Event Restoration Time(s) with calculated Restoration time(s) using the AMI Power Restore Alarm Data from MDMS.		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft							x	
REQ-08017	Metering - Advanced Outage System Support	The system must be able to collect and store meter power quality data (number of power outages, voltage dips, sags, etc.) received from AMI Head End.		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft	x							
REQ-08018	Metering - Advanced Outage System Support	The system must be able to identify scheduled Power Outage versus an unplanned outage from ~~meter reading and~~ ping data.		DAL - I wouldn't include "meter reading."	4/27/2022	Updated	[redacted]	0%	100%	R2	High	FR	Draft								
REQ-08019	Metering - Advanced Outage System Support	The system shall have ability to Prevent the processing of outage event calls for customers that have been shut-off for non payment.		DAL - Good	4/27/2022		[redacted]	50%	50%	R2	High	FR	Draft								
REQ-08020	Metering - Advanced Outage System Support	The system shall have ability to ping neighbor meters on the mesh for additional validation of outage status and extent of the outage.		DAL - Good	4/27/2022		[redacted]	0%	100%	R2	High	FR	Draft								
REQ-08021	Metering - Advanced Outage System Support	The system shall have the ability to collect , process and send outage events and restoration information accurately to customers in a proactive and faster manner. This is applicable for both planned and unplanned outages.				New requirement added	[redacted]	0%	100%	R2	High	FR	Draft								
REQ-09001	Metering - Grid Service Services Support(ADMS)	The system shall interface with AMI HE to view latest meter data for display and viewing within power flow applications. Power up/down and voltage sag/swell will be streamed to ADMS near real time.		DV-the meter data used by ADMS has to be as close to realtime as possible to be useful. For that reason the ADMS requests the data from AMI HE and AMI HE does an on-demand read of the data, receiving the data back from the meter and forwarding it to ADMS. Separately/In Addition - PowerUp/Down alerts from meters are directly streamed to ADMS where they are displayed on a geo-spaitial map. Here we need to be careful to review ADMS and/also OMS to insure we have it right.	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09002	Metering - Grid Service Services Support(ADMS)	The system shall provide a display for standard values (like Amps, KW, voltage). KW values can be either positive or negative.		DV - I don't think ADMS gets or distinquishes net vs standard meterered data from MDMS. The data it does collect (things like Amps, KW, voltage) come from AMI HE and should be "net", either postive or negative to reflect delivered vs received.	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft	X							
REQ-09003	Metering - Grid Service Services Support(ADMS)	The system shall be able to quickly and easily collect and display dispatched vs actual (metered) DER outputs via AMI HE on a UI.		DV - requirement is fine, recognize the focus is on the data exchanged (the interface) more so that functional capabiities of the ADMS itself. Also, communication with (to and from) DERs is from ADMS to AMI HE over the meter network to the meter, and all the way back to ADMS.	4/27/2022	Discussed and updated	[redacted]	0%	100%	R5	High	FR	Draft	X							
REQ-09004	Metering - Grid Service Services Support(ADMS)	The system shall be able to request AMI Head End system to collect meter voltages, kw, and amps, as well as pings in near Realtime to support advance apps like VVO (volt-var-optimization), CVR (conservation of voltage reduction) as required.		DV - small edit, looks good.	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09007	Metering - Grid Service Services Support(ADMS)	The ADMS and AMI HE shall jointly developed interface that enables ADMS to request and/or receive meter outage data from the AMI Head End system.		DV - good, small edit. This would be the "power up/down alerts" from the meters.	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09008	Metering - Grid Service Services Support(ADMS)	The ADMS and AMI HE shall have a jointly developed interface that allows ADMS to throttle the number of AMI outage messages sent to ADMS so as to not overrun the ADMS receipt capability. The interface shall support thousands of outage messages per minute before throttling would be required.		DV - edited	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09009	Metering - Grid Service Services Support(ADMS)	The ADMS and AMI HE shall have a jointly developed interface such that ADMS shall have the ability to ping any single meter or group of meters to verify outage status, heartbeat and network health information.		DV - Good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09010	Metering - Grid Service Services Support(ADMS)	The ADMS and AMI HE shall have a jointly developed interface such that the ADMS shall be capable of initiating a request to ping a meter/group of meters to verify that power has been restored.		DV - Good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09011	Metering - Grid Service Services Support(ADMS)	ADMS shall have the ability to receive and store AMI detected PONs(Power Outage Notification) and PRNs (Power Restore Notification) from AMI Head End system		DV ??	4/27/2022	All good	[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09016	Metering - Grid Service Services Support(ADMS)	The ADMS shall have ability to use AMI data for state estimation, powerflow, FLISR, and VVC.		DV - good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft								

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REQ-09017	Metering - Grid Service Services Support(ADMS)	The ADMS shall have the ability to use AMI-derived voltage information for determining feeder voltages.		DV - good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09018	Metering - Grid Service Services Support(ADMS)	The ADMS shall have the ability to use AMI-derived voltage information for determining voltages on low voltage lines.		DV - good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09019	Metering - Grid Service Services Support(ADMS)	The ADMS shall support the ability to collect and store voltage information from C&I AMI meters.		DV - good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09020	Metering - Grid Service Services Support(ADMS)	The ADMS shall support the ability to collect and store load information from C&I AMI meters.		DV - good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	X							
REQ-09023	Metering - Grid Service Services Support(ADMS)	ADMS shall be able to store Voltage data which includes minimum and maximum voltage occurring within the average time window.	Chris	DV ??	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft								
REQ-09024	Metering - Grid Service Services Support(ADMS)	The AMI HE shall provide the following voltage data to ADMS: voltage data for single phase and 3 phase meter. i. Residential 2S meter --- 3 voltages: Maximum, Minimum, and Average Voltage ii. 12S meter 6 voltages: Maximum, Minimum, and Average Voltage for both phases iii. Polyphase meter (depends on the form) up to 9 voltages: Maximum, Minimum, and Average Voltage for all three phases		DAL - Good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09025	Metering - Grid Service Services Support(ADMS)	The System shall support Avg voltage data for all 3 phases of a 3 phase meter individually.	Chris	DV ??	4/27/2022	Discussed and updated	[redacted]	0%	100%	R4	High	FR	Draft	x							
REQ-09026	Metering - Grid Service Services Support(ADMS)	ADMS shall be able to store voltage info as accurate as the native voltage data in the meter.		DAL - Good	4/27/2022		[redacted]	0%	100%	R4	High	FR	Draft								
REQ-09027	Metering - Grid Service Services Support(ADMS)	The System shall support data from Bellweather meters from DA (distributed automation) either through AMI Head End or DA HE .	Chris	DV ??	4/27/2022		[redacted]	0%	100%	R6	High	FR	Draft	x							
REQ-09028	Metering - Grid Service Services Support(ADMS)	The AMI HE and MDMS shall be able to support data for all bellweather meters reporting every 5 minutes and residential/commercial meters in every 5 minutes.		DV - edited, good.	4/27/2022		[redacted]	0%	100%	R6	High	FR	Draft	x							
REQ-09029	Metering - Grid Service Services Support(ADMS)	ADMS shall have the ability to initiate RCD transactions to MDMS for exception scenarios like major fire incidents.		DV - this is a new one from an ADMS operations person. Most RCDs come from Customer System. On rate occasion they can come from the ADMS.	4/27/2022	Updated release#	[redacted]	0%	100%	R6	High	FR	Draft							x	
REQ-11001	Profiling & Forecasting	System shall receive interval read data and non-interval read data from MDMS		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-11002	Profiling & Forecasting	System shall receive validated read data (VEE'd) from MDMS		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-11003	Profiling & Forecasting	System shall have ability to create and edit load profile for each rate class defined in CSS. Load research meters are not going away in the short term. Load research meters will need to be used to generate load profiles. While Ami meters are being rolled out and If the premise has an AMI Meter the premise shall be settled using AMI data.		DAL - f this is saying that the rate classes would go directly from CSS to the profiling system, I don't think that is correct. I think the rate classes would go from CSS to MDMS and then from MDMS to the profiling system.	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft		x						
REQ-11004	Profiling & Forecasting	System shall have the ability to determine the "previous same day" based on the similar day last year (+/- 1 month) with the closest wholesale load and uses the customer usage on that day.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11005	Profiling & Forecasting	System shall utilize previous same day for estimation of meter read for creating profiles. **To be confirmed with RI		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11006	Profiling & Forecasting	System shall utilize linear interpolation/extrapolation in estimation to be used for profile creation process.		DAL - Good	5/3/2022	discuss with tcs team	[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11007	Profiling & Forecasting	System shall allow user configurable and user customizable estimation rules based on Owner's requirements.		DAL - Good	5/3/2022	discuss with tcs team	[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11008	Profiling & Forecasting	System shall exclude the 0 usages for profile creation.		DAL - Is this a requirement? Confirmed Req	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11009	Profiling & Forecasting	System shall exclude known outage time periods from usage factor calculation		DAL - Is this a requirement?	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11010	Profiling & Forecasting	System shall support the ability to establish specific thresholds or boundaries for estimation on specific accounts by meter/customer, group, tariff/rate, or energy provider.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11011	Profiling & Forecasting	System shall have the ability to calculate hourly load shape for each customer based on actual meter read data or estimated meter read data		DAL - Good "System needs to be understood", is this the same system PA uses or not?	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11012	Profiling & Forecasting	The system shall have the ability to aggregate the interval read data (5 minutes or 15 minutes) into hourly interval using profile shape.		DAL - Good 6/9 there is an impact to cost based on raw Interval period selected? Have as a derived channel and roll up during aggregation reporting	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								

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REQ-11013	Profiling & Forecasting	The system shall have the ability to distribute the monthly index read data into hourly interval using load profile.		DAL - Good Load research meters are not going away in the short term. Load research meters will need to be used to generate load profiles. While Ami meters are being rolled out and If the premise has an AMI Meter the premise shall be settled using AMI data. 6/9: Create here means from PPL supplied Rate Class curves. Have Load research LP meters generating the LP for AMR meters. PPL will generate the LP curves for the monthly read meters. AMR ahead of AMI . There will be a need to continue this process for AMR meters during deployment. AMI meters replacing LR meters will need to be factored into the continue PPL supplied Rate Class curves until all LRS meters for a rate class/strata group are removed. Action: More to discuss	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11014	Profiling & Forecasting	System shall use the entire segmentation population to create a load profile for a rate class.		DAL - Good 6/9- believe this is an AMI requirement. R2 is to have everything in place for the first AMI meter be installed.	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11015	Profiling & Forecasting	System shall generate a rate class profile by the following parameters: Season, Day type (weekday, weekend, holiday, etc.)		DAL - Good 6/9 season means the 4 seasons (winter, summer, spring and fall)	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11016	Profiling & Forecasting	System shall assign a custom or default profile to a new segment (including the ability to use existing rate class profile as a proxy)		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11017	Profiling & Forecasting	System shall generate a load profile according to Owner defined frequencies (e.g. once a year, monthly, etc.)		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11018	Profiling & Forecasting	System shall generate weather sensitive load profiles using normalized weather data		DAL - Good Using Providence only currently	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11019	Profiling & Forecasting	System shall assign meters to a load profile based on rate		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11020	Profiling & Forecasting	System shall assign meters to a past, current, and future load profile using start and end dates.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11022	Profiling & Forecasting	System shall use load profiles, weather, and a scaling factor (that adjusts the load profile closely to a customer's historical usage) to estimate data when actual data is not available.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11023	Profiling & Forecasting	System shall calculate (freq) usage factor for each interval hour on each active customer account *Usage factors are calculated each month. Confirm the frequency of UF	Gary	DAL - I don't know that we need an hourly usage factor. Does that mean that the usage factor would be different for each hour? I think that generally usage factors are good for a year. 6/9- Today updated monthly in PA.	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11024	Profiling & Forecasting	System shall provide a user the ability to calculate rate revenue class profile(s)	Gary	DAL - Good 6/9- think we do this today in PA. This applies to the AMI	5/3/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-11025	Profiling & Forecasting	System shall generate load profiles for each rate and rate revenue class combination by the combination of season and date type (i e., Winter - Weekday, Winter - Weekend/Holiday, Summer - Weekday, Summer - Weekend/Holiday, etc)	Gary	DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11026	Profiling & Forecasting	System shall make the results of the rate class load profile available to be sent to suppliers.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11027	Profiling & Forecasting	System shall provide a user the ability to exclude accounts, meters, service points, and/or channels from the rate revenue class profile generation segmentation by meter number.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11028	Profiling & Forecasting	System shall provide a user the ability to run ad-hoc usage calculations based on an input of a service point and date range. System shall use the service point's associated rate revenue class profile, usage factor, and appropriate weather data(actual or forecasted)		DAL - Good Ad-Hoc = Configurable	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11029	Profiling & Forecasting	System shall make the results of profile generation available for use in the Settlement process		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-11032	Profiling & Forecasting	System shall utilize effective dates of account attributes (e.g., capacity tags, suppliers, rate, etc.) when performing forecast aggregations		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								

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REQ-11033	Profiling & Forecasting	System shall create and transfer a file in a ISO-NE specified format containing forecasted capacity tags aggregated to short name that results from the forecasted capacity aggregation		DAL - Good 6/9- NE-ISO format to be provided by PPL-RI Gary to track down settlement file format to be extracted from MDM	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11034	Profiling & Forecasting	System shall apply loss factor(s) to interval kWh data for all accounts by loss class for forecasting		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11035	Profiling & Forecasting	System shall provide ICAP forecast with aggregated capacity tags by supplier short name for the period XX to XX on daily basis before 1 PM to ISO-NE.		DAL - Good Gary to confirm for gas and electric. Should be configurable	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11036	Profiling & Forecasting	System shall be able to utilize loss factor, reconciliation factor ,scaling factor added to tag value prior to ICAP forecast submission		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11037	Profiling & Forecasting	System shall be able to calculate Unaccounted for Energy (UFE)		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11040	Profiling & Forecasting	System shall calculate forecast based on estimated hourly load for the period 2 days from now, 5 days out. (T+2 to T+7) using profiles, weather data, and usage factors for each account. The outlook period should be configurable.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11041	Profiling & Forecasting	System shall generate the "Forecast Five Day Look Ahead" Report each time a forecast is generated for a configurable date range (default date range = T to T+4).		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11042	Profiling & Forecasting	System shall store approved forecast files for at least one year.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-11043	Profiling & Forecasting	System shall be able to store all version of profile and forecast data		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12001	MDMS- Settlement Tag Creation	System shall provide a user the capability to create a new tagset		DAL - Good 06/21- New tagset done annually. Looking at business rules (usage, etc.) per customer and create new tag for new customers.	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12002	MDMS- Settlement Tag Creation	System shall calculate a tag for every account which had interval data during at least one peak period on at least one meter (includes metered and unmetered accounts) unless the account is on the exclusion list.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12003	MDMS- Settlement Tag Creation	System shall calculate tags based on an average of the peak periods provided.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12004	MDMS- Settlement Tag Creation	System shall have the ability to receive weather data to calculate ICAP tag		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12005	MDMS- Settlement Tag Creation	System shall have the ability to receive daily update to weather station code from CSS		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft		x						
REQ-12006	MDMS- Settlement Tag Creation	System calculate two sets of defaults for each rate class; median and average of all tags for the rate class.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12007	MDMS- Settlement Tag Creation	System shall calculate a default tag for each rate class.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12008	MDMS- Settlement Tag Creation	System shall provide for the user to choose which default tags (average, median, or modified) will be used for each rate class for the duration of the tagsets existence in the system.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12009	MDMS- Settlement Tag Creation	System shall assign a default tag to all active accounts with no tag value by rate class prior to ICAP Forecast.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12010	MDMS- Settlement Tag Creation	System shall be able to estimate the customer's contribution to ICAP either their actual peak hour use, if interval data are available, or load profiles		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12011	MDMS- Settlement Tag Creation	System shall aggregate tags and default tags by account for all accounts for each day in the forecast/backcast		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12012	MDMS- Settlement Tag Creation	System shall store all assigned tag values when the tagset is set to approved.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12013	MDMS- Settlement Tag Creation	System shall provide a capability to edit tag values after they are set to approved. But once approved the adjustment to the target will no longer be made for the tagset		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12014	MDMS- Settlement Tag Creation	System shall have the ability to provide an "Accounts by rate" report from the tag calculation results		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12015	MDMS- Settlement Tag Creation	System shall have the ability to calculate and maintain the tags at the account level (not at a meter level).		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12016	MDMS- Settlement Tag Creation	System shall provides the ability to freeze an ICAP tag value at the account level during the tag creation process. This implies that the tag will not be scaled by the reconciliation factor and thus must be removed from the calculation of the reconciliation factor		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12017	MDMS- Settlement Tag Creation	System shall send annual ICAP tags to CSS.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft		x						
REQ-12018	MDMS- Settlement Tag Creation	System shall send CSS a new tag value any time the tag changes.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft		x						
REQ-12031	MDMS- Settlement Tag Creation	System shall forecast capacity tag calculations for multiple days in the past or future and across past, current and future tag levels		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12038	MDMS- Settlement Tag Creation	System shall be able to calculate ICAP for each customer based on individual customer peak hour and the following adjustment - - Distribution line loss (received from ISO-NE) - Transmission line loss including an allocation of ISO-NE high voltage transmission losses		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								
REQ-12039	MDMS- Settlement Tag Creation	System shall generate the "Day over Day Comparison" report to identify any errors in the ICAP forecast file when the forecast is generated. The ICAP forecast file shall contain the following fields: Load type (NSPL) Zone Area Supplier Short name Scaled Tag (Mw Amount) by Supplier Short name Date		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft								

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REQ-13001	Settlement-RL	System shall run Settlement A Backcast daily for two business days prior, before 1 PM. The business day outlook period should be configurable		DV - what are the column C entries for settlement. Are we distinquishing Hartigen Wholesale Settlement and MDMS Retail Settlement. What is Settlement-RL, what is Settlement-WS, etc 6/9 Validate 0 Settlement against prior specs. - Could this be configured to 3 or 1 days. Can we accommodate an ISO change if the # days to look back change. _ A small T-shirt , minor code change	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13002	Settlement-RL	System shall calculate hourly load for the 24 hour period 2 days prior.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13003	Settlement-RL	System shall calculate hourly load using validated interval data for each account		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13004	Settlement-RL	System shall receive the ISO-NE Zonal Load file		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13005	Settlement-RL	System shall aggregate the hourly load to the supplier level for Settlement A&B aggregations.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13006	Settlement-RL	System shall calculate the UFE factor by hour for Settlement A&B aggregations..		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13007	Settlement-RL	System shall exclude specific accounts (configurable) from UFE Factor calculations for Settlement A&B aggregations		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13008	Settlement-RL	System shall create separate line items for individual supplier contract numbers in the Settlement A&B aggregation files.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13009	Settlement-RL	System shall generate a "Daily UFE History Report" with following details - - Day of the Week - Date - Total Aggregation - UFE - Total (Total Aggregation + UFE) - % UFE (% of the Total that UFE accounts for)		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13010	Settlement-RL	System shall generate a five day (configurable) report of the Settlement A file with following fields - - Supplier Contract Number, - Date, - Aggregated Estimated MW for each hour (1-24) per Contract Number		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13011	Settlement-RL	System send all approved Settlement A Backcast files to the data warehouse when the backcast is approved.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13012	Settlement-RL	System shall provide a user the ability to update the ISO-NE zonal load for a backcast day at any time.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13013	Settlement-RL	System shall run Settlement B Backcast for a one month period, 90 days after the end of the month. This outlook period should be configurable		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13014	Settlement-RL	System shall calculate Settlement B as the difference between the hourly load and the approved Settlement A submitted to ISO-NE for a specified period of time mm/dd/yyyy - mm/dd/yyyy.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13015	Settlement-RL	System shall create a Settlement B Report monthly, when the settlement B process is run		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13016	Settlement-RL	System shall have the capability to schedule Settlement B aggregation according to a configurable schedule loaded in the system.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13017	Settlement-RL	System shall provide a user the ability to export the Settlement B Backcast file with following fields: - Supplier Contract Number, - Date, - Hourly Delta between submitted Settlement A and Settlement B		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13018	Settlement-RL	System shall provide a user the ability to request an on demand Settlement B aggregation.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13019	Settlement-RL	System shall send all approved Settlement B Backcast files to the data warehouse when the backcast is approved.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13020	Settlement-RL	System shall import daily weather forecasted weather from the weather bank prior to Settlement Forecast.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	FR	Draft							x	
REQ-13021	Settlement-RL	System shall store approved settlement forecast files for at least one year.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	NFR	Draft							x	
REQ-13022	Settlement-RL	System shall store approved settlement A backcast files for 18 months.		DAL - Good	5/3/2022		[redacted]	100%	0%	R1	High	NFR	Draft							x	
REQ-13025	Settlement-WS	The system shall interface with the retail settlement system for the hourly calculated intervals and will need to be loaded daily to retail settlement											Draft							x	
REQ-14001	Settlement-WS	System shall receive zonal load values from OSI PI data for settlement calculation. This will be the initial version of the zonal load values.		DAL - Yes, for wholesale settlement	5/3/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-14002	Settlement-WS	System shall receive zonal load values from MV90 via MDMS for settlement calculation. The MV90 zonal load values will have higher precedence than OSI PI zonal load values for further calculations.		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft							x	
REQ-14003	Settlement-WS	System shall be able to have a configurable tolerance check between the initial and final values of zonal load data.		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-14004	Settlement-WS	System shall be able to have a validation checks on the meter reads e.g. maximum output check of plants.		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-14005	Settlement-WS	For any anomalies , system shall have the ability to notify users in a dashboard.		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-14006	Settlement-WS	The system should be able to correct the data before closure of settlement window. This window should be configurable in system		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-14008	Settlement-WS	System shall calculate hourly load for each zone for last 24 hours.		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-06086	Metering - Meter Data Management	The overall LG solution (including meters) shall support load disaggregation		DV - There is no Meter Data and REporting applicaiton?	5/23/2022		[redacted]	0%	100%	R6	High	FR	Future								
REQ-14009	Settlement-WS	System shall allow users to correct the zonal loads till submission deadline		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-14010	Settlement-WS	System shall be able to pass the reads to the NE-ISO market based on a time schedule and ad-hoc.		DAL - Good	5/9/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-14011	Settlement-WS	System shall have the ability to properly handle daylight savings including the duplicate hour in the fall, the missing hour in the spring, internal and user interface representation, and representation in interfaces to other applications.					[redacted]	100%	0%	R2	High	FR	Draft								

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REQ-15001	Metering - Meter Data Management	MDMS system shall have a process to retrieve standard billing read request from CSS and provide response to that as per the expected format.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	100%	0%	R1			Draft		x					X	
REQ-15002	Metering - Meter Data Management	MDMS system shall have a process to retrieve TOU/RTP read request from CSS and provide response to that as per the expected format.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	0%	100%	R5			Draft		x					x	
REQ-15003	Metering - Meter Data Management	MDMS system shall have a process to retrieve complex billing read request from CSS and provide response to that as per the expected format.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	40%	60%	R1			Draft		x					x	
REQ-15004	Metering - Meter Data Management	MDMS shall be able to receive read, which was used for billing but not supplied by MDMS (supplemental read), as generated from CSS validation /estimation process .		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	100%	0%	R1			Draft		x					x	
REQ-15005	Metering - Meter Data Management	MDMS system shall be able to retrieve off-cycle special read request from CSS for AMI meters and provide response to that as per the expected format.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	0%	100%	R2			Draft		x					x	
REQ-15006	Metering - Meter Data Management	MDMS system shall be able to retrieve off-cycle supplier switch read request from CSS for AMI meters and provide response to that as per the expected format.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	0%	100%	R2			Draft		x					x	
REQ-15007	Metering - Meter Data Management	MDMS system shall be able to receive on-demand read request from CSS for AMI meters. Head End system shall in turn be able to receive on-demand read request from MDMS and provide response to that. MDMS shall then be able to provide on-demand read response to CSS.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	0%	100%	R2			Draft		x					x	
REQ-15008	Metering - Meter Data Management	MDMS shall be able to receive and process the interval usage data request from CSS for EDI transactions.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022	Confirm with Dwain 06/13	[redacted]	25%	75%	R2		FR	Draft		x					x	
REQ-15009	Metering - Meter Data Management	MDMS shall be able to send meter read history with interval data to CSS for EDI transactions (e.g. 867).		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022	Confirm with Dwain 06/13	[redacted]	40%	60%	R2			Draft		x					x	
REQ-15010	Metering - Meter Data Management	MDMS shall be able to receive meter details from CSS upon completion of meter installation/removal/replacement.		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	100%	0%	R1			Draft		x					x	
REQ-15011	Metering - Meter Data Management	MDMS shall be able to receive meter configuration details from CSS		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	100%	0%	R1			Draft		x					x	
REQ-15012	Metering - Meter Data Management	MDMS shall be able to receive install/removal read changes from CSS		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	100%	0%	R1			Draft		x					x	
REQ-15013	Metering - AMI	Head End system shall be able to receive meter configuration details from MDMS		DV - Listed as a Customer Service Requirement, but worded as a AMI HE requirement. Perhaps these are Interface requirements for AMI HE to support Customer Services?	5/23/2022		[redacted]	0%	100%	R2			Draft	x						X	

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REQ-15014	Metering - AMI	Head End shall be able to receive meter details from CSS upon completion of meter installation/removal/replacement.		DV - Listed as a Customer Service Requirement, but worded as a AMI HE requirement. Perhaps these are Interface requirements for AMI HE to support Customer Services?	5/23/2022		[redacted]	0%	100%	R2			Draft	x	x					x	
REQ-15015	Metering - Meter Data Management	MDMS shall be able to receive RCD request from CSS for AMI meters and pass this request to Head End system. Once received the response from Head End system, MDMS shall be able to pass this response to CSS		DV - Listed as a Customer Service Requirement, but worded as a MDMS requirement. Perhaps these are Interface requirements for MDMS to support Customer Services?	5/23/2022		[redacted]	0%	100%	R2			Draft		x					x	
REQ-16001	Planning Forecasting	System shall allow user to upload the data from various internal and external sources to enable multi-year forecasting for business planning and demand planning. Internal: (manual import) - 20 years' of historical usage data from CSS - Meter reading Schedule External: (manual import) - Factors for Heating, Cooling, Appliances etc. - Weather data - Economic data (Moody's) - Generation data(solar, DR) - DER data, EV data		DAL - Good	5/11/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-07036	Metering - AMR	System problems shall not prevent the collection of, or cause loss of, daily route meter readings and intervals 99.95% of the time.					[redacted]	100%	0%	R1			Draft								
REQ-16002	Planning Forecasting	System shall be able to perform planning forecasting by creating regression model for each rate class		DAL - Good	5/11/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-16003	Planning Forecasting	System shall be able to perform planning forecasting by creating monthly aggregated forecast for each rate class		DAL - Good	5/11/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-16004	Planning Forecasting	System shall be able to generate revenue forecast , demand forecast and customer count forecast as part of planning forecast		DAL -Good	5/11/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-16005	Planning Forecasting	System shall be able to reforecast on a need basis when there is expected change in forecast such as, new customer addition, large usage change, etc.		DAL - Good	5/11/2022		[redacted]	100%	0%	R2	High	FR	Draft								
REQ-15016	Metering - AMI	AMI HE shall be able to store 45 days of captured data (e g. metering data, event data, log data) and delete any data older than 45 days after it's confirmed that it is successfully archived. The archival system shall retain the deleted data for 1 year.(Discuss with L+G about archival mechanism,cost).					[redacted]	0%	100%	R2		NFR	Draft	x							
REQ-15017	Metering - AMI	The system will provide a Production environment with >= 99.5% availability and one Disaster Recovery Environment.					[redacted]	0%		R2		NFR	Draft								
REQ-15018	Metering - AMI	For intentional switchovers between the Production and Disaster Recovery(DR) environments, there should not be any data loss and interruption to users.					[redacted]	0%		R2		NFR	Draft								
REQ-15019	Metering - AMI	Also, in case of a failover, the recovery service shall restore a production system within 5 minutes.					[redacted]	0%		R2		NFR	Draft								
REQ-15020	Metering - AMI	The system shall have the ability to support the following targets for Disaster Recovery failover service levels: RTO = 6 Hrs. RPO= 5 minutes.					[redacted]	0%		R2		NFR	Draft								
REQ-15021	Metering - AMI	Update AMI HE Disaster Recovery(parallel production) environment with all production changes every 5 minutes. Note: The intent here is replication of production environment to Disaster Recovery environment					[redacted]	0%		R2		NFR	Draft								
REQ-15022	Metering - AMI	Backup and Recovery. System shall conduct at minimum -Daily backups of Customer Data and perform or cause to be performed other periodic backups (snapshots, differential backups, etc.). At least one backup will be stored online (directly accessible). Such copy will be less than one week old and may be overwritten as it is replaced with newer backups. -Weekly backups are stored for a minimum of one month. -Monthly backups are stored in a separate location and will be maintained for a minimum of one (1) year.					[redacted]	0%		R2		NFR	Draft								
REQ-15023	Metering - AMI	The performance of the production system shall be monitored by the Vendor .					[redacted]	0%		R2		NFR	Draft								
REQ-15024	Metering - AMI	The vendor will carry out the following monitoring services for the production and DR systems: -Daily operations Monitoring -Daily Software Monitoring - System Process monitoring - Notify company for any exceptions					[redacted]	0%		R2		NFR	Draft								
REQ-15025	Metering - Meter Data Management	The MDMS system will provide a Production environment with >= 99.5% availibility and one Disaster Recovery Environment.					[redacted]	0%		R1		NFR	Draft								
REQ-15026	Metering - Meter Data Management	For intentional switchovers between the MDMS Production and Disaster Recovery(DR) environments, there should not be any data loss and interruption to users.					[redacted]	0%		R1		NFR	Draft								
REQ-15027	Metering - Meter Data Management	Also, in case of a failover, the recovery service shall restore a production system within 5 minutes.					[redacted]	0%		R1		NFR	Draft								
REQ-15028	Metering - Meter Data Management	The MDMS system shall have the ability to support the following targets for Disaster Recovery failover service levels: RTO = 6 Hrs. RPO= 5 minutes.					[redacted]	0%		R1		NFR	Draft								
REQ-15029	Metering - Meter Data Management	Update MDMS Disaster Recovery(parallel production) environment with all production changes every 5 minutes. Note: The intent here is replication of production environment to Disaster Recovery environment					[redacted]	0%		R1		NFR	Draft								
REQ-15030	Metering - Meter Data Management	Backup and Recovery. MDMS System shall conduct at minimum -Daily backups of Customer Data and perform or cause to be performed other periodic backups (snapshots, differential backups, etc.). At least one backup will be stored online (directly accessible). Such copy will be less than one week old and may be overwritten as it is replaced with newer backups. -Weekly backups are stored for a minimum of one month. -Monthly backups are stored in a separate location and will be maintained for a minimum of one (1) year.					[redacted]	0%		R1		NFR	Draft								

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REQ-15031	Metering - Meter Data Management	The performance of the production MDMS system shall be monitored by the Vendor .					[redacted]	0%		R1		NFR	Draft										
REQ-15032	Metering - Meter Data Management	The vendor will carry out the following monitoring services for the production and DR MDMS systems: -Daily operations Monitoring -Daily Software Monitoring - System Process monitoring - Notify company for any exceptions					[redacted]	0%		R1		NFR	Draft										
REQ-15033	Metering - Meter Data Management	MDMS is a Sarbanes Oxley(SOX) System for Company, as such the MDMS SaaS must meet the SOX criteria for access control, environment, change management etc. The vendor shall also provide evidence to complete the attached Company forms .					[redacted]	0%		R1		NFR	Draft										
REQ-06090	Metering - AMI	The AMI HE shall provide voltage and interval meter data to Network Model Validator to support meter to transformer model analytics.				added on 9/16 per confirmation from Dave V. Also shared with Mike v to add in SOW	[redacted]	0%	100%	R4	High	FR	Draft	x									
REQ-06091	Metering - Meter Data Management	MDMS system shall provide a programmatic interface for accessing the meter multipliers in MDMS and a mismatch report between CSS/MDMS multipliers will present the users leveraging the interface.					[redacted]	40%	60%	R2	High	FR	Draft										
REQ-15034	Metering - AMI	The solution shall be compatible with PPL's preferred web browser technology; both Edge and Google Chrome are used in PPL EU's environment.				added 9/22 per confirmation from Dave V	[redacted]	50%	50%	R1	High	FR	Draft	x									
REQ-15035	Metering - AMI	Landis+Gyr will conduct or have conducted at minimum, daily backups of Customer Data and perform or cause to be performed other periodic backups (snapshots, differential backups, etc.). At least one backup will be stored online (directly accessible). Such copy will be less than one week old and may be overwritten as it is replaced with newer backups. Weekly backups are stored for a minimum of one month. Monthly backups are stored in a separate location for a minimum of one (1) year.					[redacted]	50%	50%	R1	High	FR	Draft										

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																Future Use								Administrative Use											
AMR Collection System	ADMS	OMS	Profiling & Forecasting	Wholesale Settlement	Meter Operation (DDO)	Supplier Portal	Customer Portal	New Customer Channels	Data Platform (AMI Data Lake)	Reporting Platform	Supplier	Weather Bank	,Authenticator	TSA-RI	NE-ISO	Interface Reference	Initiator (Interface)	Receiver (Interface)	Timing	Type of Requirement (People, Process, Technology)	Associated Requirement Reference #(s)	Comments	Requirement Type	Interface Count	TSA-Exit Interface	AMF Interface	Release Estimate Group	Vendor Grouping	SOW Vendor Package	EPIC	FEATURE	USER STORY	REQ-US Map		In Sync with SOW
																								0	0	0	Release 1-2	TCS	All				US-01670		Yes
																								0	0	0	Release 1-2	TCS	All				US-01671		Yes
																								0	0	0	Release 1-2	TCS	All				US-01669		Yes
																								0	0	0	Release 1-2	TCS	All				#N/A		Yes
																								0	0	0	Release 1-2	TCS	All				#N/A		Yes
																								0	0	0	Release 1-2	TCS	All				#N/A	Not a requirement	Yes
																								2	0	2	Release 1-2	PPL					US-02001		
																								3	2.25	0.75	Release 1-2	PPL					US-02002		
	x	x																						2	1.5	0.5	Release 1-2	PPL					US-02248		
																								1	0.75	0.25	Release 1-2	PPL	L+G				US-02249		
																								3	2.25	0.75	Release 1-2	PPL					US-02220		Yes
																								3	2.25	0.75	Release 1-2	PPL					US-02003		Yes
																								3	2.25	0.75	Release 1-2	PPL	L+G				US-02284		
																								3	2.25	0.75	Release 1-2	PPL	L+G				US-02274		
																								1	0	1	Release 1-2	PPL					US-02004		Yes

Business Use

Redacted

																							1	0.75	0.25	Release 1-2	PPL		US-02250		Yes
																							1	1	0	Release 1-2	PPL		US-02011		Yes
																							1	0.75	0.25	Release 1-2	PPL		US-02006		Yes
																							1	1	0	Release 1-2	PPL		US-02012		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02013		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02014		Yes
																							1	0.8	0.2	Release 1-2	PPL		#N/A	Covered in US-1001	Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02015		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02016		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02252		Yes
																							0	0	0	Release 1-2	PPL		US-02253		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02254		Yes
																							0	0	0	Release 1-2	PPL		US-02255		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02017		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02018		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02019		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02256		Yes
																							1	0	1	Release 1-2	PPL		US-02020		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02021		Yes
																							1	0.8	0.2	Release 1-2	PPL		US-02022		Yes
x																							4	3.2	0.8	Release 1-2	PPL	L+G/Clevest	US-02258		Yes
																							2	1.6	0.4	Release 1-2	PPL	L+G	US-02260		
																							2	0	2	Release 1-2	PPL	L+G	US-02261		
																							1	0.8	0.2	Release 1-2	PPL		US-02023		Yes
																										Release 1-2	PPL		US-02251		Yes
																				Release	PPL								#N/A	Covered in US-1001	Yes

Redacted

																									Release 1-2	PPL		US-02263		Yes
																									Release 1-2	PPL		US-02265		Yes
																									Release 1-2					Yes
																						0	0	0	#N/A	L+G	L+G	US-03277		Yes
																						0	0	0	Release 1-2	L+G	L+G	US-03297		Yes
																						0	0	0	Release 1-2	L+G	L+G	Covered in US-10063		Yes
																						0	0	0	Release 1-2	L+G	L+G	US-03303		Yes
																						0	0	0	Release 1-2	L+G	L+G	US-03305		Yes
																						0	0	0	Release 1-2	L+G	L+G	US-03307		Yes
																						0	0	0	Release 1-2	L+G	L+G	US-03311		Yes
																						0	0	0	Release 1-2	L+G	L+G	US-03311		Yes
																						1	0	1	Release 1-2	L+G	L+G	#N/A	Covered in US-10069	Yes
	x	x																				4	0	4	Release 1-2	L+G	L+G	US-03317		Yes
	x	x																				4	0	4	Release 1-2	L+G	L+G	#N/A	Covered in US-10071	Yes
																						0	0	0	#N/A	L+G	L+G	#N/A	Covered in US-10072	Yes
	x	x																				3	0	3	#N/A	L+G	L+G	US-03323		Yes
	x	x																				3	0	3	Release 1-2	L+G	L+G	#N/A	Covered in US-10074	Yes
	x	x																				2	0	2	Release 1-2	L+G	L+G	#N/A	Covered in US-10075	Yes
	x	x																				2	0	2	Release 1-2	L+G	L+G	US-03329		Yes
																						0	0	0	Release 1-2	L+G	L+G	US-03330		Yes
	x																					3	0	3	Release 1-2	L+G	L+G	US-03331		Yes

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																							0	0	0	#N/A	L+G	L+G	US-03332	Yes
																							2	0	2	Release 1-2	L+G	L+G	US-03333	Yes
																							2	0	2	Release 1-2	L+G	L+G	US-03335	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03337	Yes
																							1	0	1	Release 1-2	L+G	L+G	US-03339	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03656	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03340	Yes
																							0	0	0	#N/A	L+G	L+G	US-03341	Yes
																							0	0	0	#N/A	L+G	L+G	US-03342	Yes
		x																					1	0	1	Release 1-2	L+G	L+G	US-03343	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03344	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03346	Yes
		x																					1	0	1	Release 1-2	L+G	L+G	US-03347	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03348	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03351	Yes
	x	x																					4	0	4	Release 1-2	L+G	L+G	US-03352	Yes
							x																2	0	2	Release 1-2	L+G	L+G	US-03353	Yes
	x	x																					1	0	1	Release 3-6	L+G	L+G	US-03361	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03366	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03371	Yes

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																							0	0	0	Release 1-2	L+G	L+G	US-03374		Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03377		Yes
																							0	0	0	Release 1-2	L+G	L+G	#N/A		Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03380		Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03383		Yes
																							0					Itron	#N/A	Not a requirement	Yes
																							0				L+G	Itron	US-04054		Yes
x																							0					Clevest	US-04055		Yes

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																							0	0	0	Release 1-2	L+G	L+G	US-03381	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03399	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-03404	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-03405	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-03406	Yes
																							2	0	2	Release 3-6	L+G	L+G	US-03407	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-03408	Yes
							x	x															2	0	2	Release 3-6	L+G	L+G	US-03409	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-03411	Yes
																							1	0	1	Release 1-2	L+G	L+G	US-03415	Yes
																							1	0	1	Release 3-6	L+G	L+G	US-03416	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03293	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-03295	Yes

Redacted

							x																	3	0	3	Release 1-2	L+G	L+G		#N/A	Yes
																								1	1	0	Release 1-2	L+G	L+G		US-04026	yes
																								1	1	0	Release 1-2	L+G	L+G		US-04031	Yes
x																								3	0.9	2.1	Release 1-2	L+G	L+G/Itron/Cl evest		US-04033	Yes
																								1	0	1	Release 1-2	L+G	L+G		US-04037	Yes
																								1	1	0	Release 1-2	L+G	L+G/Itron		US-04038	Yes
																								1	1	0	Release 1-2	L+G	L+G/Itron		#N/A	Yes

Redacted

x																						1	1	0	Release 1-2	L+G	L+G/Clevest	US-04039	Yes
																						0	0	0	Release 1-2	L+G	L+G	US-04040	Yes
x																						2	2	0	Release 1-2	L+G	L+G	#N/A	Yes
																						2	1	1	Release 1-2	L+G	L+G	US-04325	Yes
																						0	0	0	Release 1-2	L+G	L+G	US-04041	Yes

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																							0	0	0	Release 1-2	L+G	L+G	US-04045	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04049	Yes
																							0	0	0	Release 1-2	L+G	L+G	#N/A	Yes
																							0	0	0	Release 1-2	L+G	L+G	#N/A	Yes
																							1	1	0	Release 1-2	L+G	L+G	US-04050	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04051	Yes
																							0	0	0	Release 1-2			US-04052	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04056	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04059	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04061	Yes
																							1	1	0	Release 1-2	L+G	L+G	US-04062	Yes

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																							2	0	2	Release 1-2	L+G	L+G	US-04063	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04067	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	#N/A	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	#N/A	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	#N/A	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04070	Yes
																							0	0	0	Release 1-2	L+G	L+G	#N/A	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04664	Yes
																							1	1	0	Release 1-2	L+G	L+G	US-04071	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04072	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04073	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04074	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04075	Yes
																							1	1	0	Release 1-2	L+G	L+G	US-04076	Yes
																							1	0.25	0.75	Release 1-2	L+G	L+G	US-04079	Yes

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						x	x				x													4	3	1	Release 1-2	L+G	L+G	US-04082	Yes
																								0	0	0	Release 1-2	L+G	L+G	US-04083	Yes
																								1	0	1	Release 1-2	L+G	L+G	US-04665	Yes
																								0	0	0	Release 1-2	L+G	L+G	US-04085	Yes
																								1	0	1	Release 1-2	L+G	L+G	US-04089	Yes
																								1	0	1	Release 1-2	L+G	L+G	US-04090	Yes
	x	x																						3	0	3	Release 1-2	L+G	L+G	US-04091	Yes
																								1	1	0	Release 1-2	L+G	L+G	US-04666	Yes
																								0	0	0	Release 1-2	L+G	L+G	US-04093	Yes
																								0	0	0	Release 1-2	L+G	L+G	US-04094	Yes
																								1	1	0	Release 1-2	L+G	L+G	US-04096	Yes
																								1	0	1	Release 1-2	PPL	L+G	US-04267	
																								2	0	2	Release 1-2	L+G	L+G	US-04097	Yes
																								2	0	2	Release 1-2	L+G	L+G	US-04098	Yes
																								2	0	2	Release 1-2	L+G	L+G	US-04099	Yes
																								1	0	1	Release 1-2	L+G	L+G	US-04100	Yes
																								1	0	1	Release 1-2	L+G	L+G	#N/A	Yes
																								1	0	1	Release 1-2	L+G	L+G	US-04102	Yes
																								1	0	1	Release 1-2	L+G	L+G	US-04103	Yes

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																							1	0	1	Release 1-2	L+G	L+G	US-04104	Yes
																							1	0	1	Release 1-2	L+G	L+G	US-04105	Yes
																							1	0	1	Release 1-2	L+G	L+G	US-04106	Yes
																							2	0	2	Release 1-2	L+G	L+G	US-04109	Yes
																							2	0	2	Release 1-2	L+G	L+G	US-04110	Yes
																							2	0	2	Release 1-2	L+G	L+G	US-04111	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04112	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04113	Yes
																							2	0	2	Release 1-2	L+G	L+G	US-04114	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04115	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04117	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04119	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04121	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04120		No/Removed
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04123		Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04124	Yes

Redacted

																							1	0	1	Release 1-2	L+G	L+G	US-04126	Yes
																							1	0	1	Release 1-2	L+G	L+G	US-04131	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04667	Yes
																							1	1	0	Release 1-2	L+G	L+G	US-04133	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-04134	Yes
																							1	0	1	Release 3-6	L+G	L+G	US-04135	Yes
																							1	0	1	Release 3-6	L+G	L+G	US-04136	Yes
							x	x															2	0	2	Release 3-6	L+G	L+G	US-04137	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04138	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04139	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04140	Yes
																							1	0.4	0.6	Release 1-2	L+G	L+G	US-04141	Yes
																							1	1	0	Release 1-2	L+G	L+G/Itron	US-04142	Yes
							x																1	0	1	Release 1-2	L+G	L+G	US-04144	Yes
																							1	1	0	Release 1-2	TCS		US-04145	
							x	x															3	0	3	Release 1-2	L+G	L+G	US-04146	Yes
							x	x															3	0	3	Release 3-6	L+G	L+G	US-04147	Yes
							x	x															2	2	0	Release 1-2	L+G	L+G	US-04148	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04150	Yes

Redacted

								x															0	0	0	Release 1-2	L+G	L+G	US-04151	Yes
								x															0				TCS	TCS	US-04153	
																							0	0	0	Release 1-2	L+G	L+G	US-04154	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04155	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04156	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04157	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04160	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04161	Yes
																							1	1	0	Release 1-2	L+G	L+G	US-04162	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-04163	yes
																							0	0	0	Release 1-2	L+G	L+G	US-04211	Yes
	x	x																								Release 1-2		L+G	US-04369	Yes
																										Release 1-2	L+G	L+G		

Redacted

																									Release 1-2	L+G	L+G			
																									Release 1-2	L+G	L+G			
																						0	0	0	Release 1-2	Itron	Itron	US-05418		Yes
																						1	1	0	Release 1-2	Itron	L+G/Itron	US-05420		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05421		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05271		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05425		Yes
																						1	1	0	Release 1-2	Itron	L+G/Itron	US-05430		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05435		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05439		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05319		Yes
																						1	1	0	Release 1-2	Itron	L+G/Itron	US-05444	Covered in US-10170	
																						0	0	0	Release 1-2	Itron	Itron	US-05445	Covered in US-10185	Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05446		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05451		Yes
																						2	2	0	Release 1-2	Itron	L+G/Itron	US-05454		Yes
																						2	2	0	Release 1-2	Itron	L+G/Itron	US-05455		Yes
			x																			1	1	0	Release 1-2	Itron	Itron	US-05456		Yes
				x																		2	2	0	Release 1-2	Itron	L+G/Itron	US-05458		Yes
x																						1	1	0	Release 1-2	Itron	Itron	US-05460		Yes
x																						1	1	0	Release 1-2	Itron	Itron/Clevest	US-05461		Yes
														x								2	2	0	Release 1-2	Itron	L+G/Itron	US-05462		Yes
																						0	0	0	Release 1-2	Itron	Itron	US-05463		Yes
																						0	0	0	Release 1-2	Itron	L+G/Itron	US-05465		yes

Redacted

																								0	0	0	Release 1-2	Itron	L+G/Itron	US-05466		Yes
																								0	0	0	Release 1-2	Itron	L+G/Itron	US-05467		Yes
																								0	0	0	Release 1-2	Itron	Itron	#N/A	Not a requirement	Yes
																								1	1	0	Release 1-2	Itron	Itron	US-05471		Yes
																																Yes
									x															0	0	0	Release 3-6	L+G	L+G	US-06362		Yes
									x															0	0	0	Release 3-6	L+G	L+G	US-06363		Yes
									x															0	0	0	Release 3-6	L+G	L+G	US-06364		Yes
									x															0	0	0	Release 3-6	L+G	L+G	US-06365		Yes
									x															0	0	0	Release 3-6	TCS	TCS	US-06668		
																								0	0	0	Release 3-6	L+G	L+G	US-06658		Yes
																								0	0	0	Release 3-6	L+G	L+G	US-06386		Yes
																								0	0	0	Release 3-6	L+G	L+G	US-06659		Yes

Redacted

																							2	0	2	Release 3-6	PPL	L+G	US-06268	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-06388	Yes
																							2	0	2	Release 3-6	PPL		US-06270	Yes
																							1	0	1	Release 3-6	L+G	L+G	US-06178	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-06389	Yes
																							1	0	1	Release 3-6	PPL	L+G	US-06601	

Redacted

																							1	0.4	0.6	Release 1-2	PPL		US-06024	
																							0	0	0	Release 1-2	PPL		US-06602	
																							0	0	0	Release 1-2	L+G	L+G	US-06660	Yes
																							0	0	0	Release 3-6	PPL		US-06603	
																							0	0	0	Release 1-2	PPL		US-06272	
																							0	0	0	Release 3-6	PPL		US-06184	
																							0	0	0	Release 3-6	PPL		US-06185	

Redacted

																						0	0	0	Release 3-6	L+G	L+G	US-06390	Yes
																						2	0	2	Release 3-6	PPL		US-06391	
																						0	0	0	Release 3-6	L+G	L+G	US-06392	Yes
																						2	0	2	Release 3-6	PPL	L+G	US-06605	
																						0	0	0	Release 3-6	L+G	L+G	US-06393	Yes

Redacted

																							0	0	0	Release 1-2	L+G	L+G	US-06186	Yes
																							0	0	0	Release 3-6	L+G	L+G	US-06394	Yes
																							2	0	2	Release 3-6	L+G	L+G	US-06395	Yes
																							0	0	0	Release 1-2	L+G	L+G	US-06189	Yes
																							1	0	1	Release 1-2	L+G	L+G	US-06190	Yes
																							1	0	1	Release 1-2	L+G	L+G	US-06191	Yes

Redacted

																							0	0	0	Release 3-6	PPL		US-06607	
									x														1	0	1	Release 3-6	L+G		US-06661	Yes
									x														2	0	2	Release 3-6	L+G	L+G	US-06195	Yes

Redacted

									x															1	0	1	Release 3-6	L+G	L+G	US-06663	Yes
									x															2	0.8	1.2	Release 1-2	L+G	L+G	US-06199	Yes
									x															1	0.4	0.6	Release 1-2	L+G	L+G	US-06200	Yes

Redacted

									x															0	0	0	Release 3-6	PPL		US-06204	
									x															1	0.4	0.6	Release 1-2	L+G	L+G	#N/A	Yes
									x															1	0.4	0.6	Release 1-2	L+G	L+G	US-06206	Yes
									x															1	0	1	Release 3-6	L+G	L+G	US-06207	Yes
									x															1	0.4	0.6	Release 1-2	L+G	L+G	US-06208	Yes

Redacted

									x															1	0	1	Release 3-6	L+G	L+G	US-06397	Yes
									x															0	0	0	Release 3-6	L+G	L+G	US-06398	Yes
																								1	0	1	Release 3-6	L+G	L+G	US-06412	Yes
																								1	0	1	Release 3-6	L+G	L+G	US-06414	Yes

Redacted

	x	x																					3	0	3	Release 1-2	L+G	L+G	US-06216	Yes
x																							2	2	0	Release 1-2	Clevest	Clevest	US-07309	Yes
x																							2	2	0	Release 1-2	Clevest	Clevest	#N/A	Covered in US-10038 & US-10042	Yes
x																							2	2	0	Release 1-2	Clevest	Clevest	#N/A	Covered in US-10038, 10039 & US-10042	Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	#N/A	Covered in US-10038, 10039 & US-10042	Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	#N/A		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07257		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	#N/A		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	#N/A		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07262		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07281		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07285		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07288		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07289		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07292		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	US-07313		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	#N/A		Yes
x																							0	0	0	Release 1-2	Clevest	Clevest	#N/A		Yes
x																							0	0	0	Release 1-2	Clevest	L+G/Clevest	US-07315		Yes

Redacted

x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	US-07296	Yes
x																								2	2	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								2	2	0	Release 1-2	Clevest	L+G/Clevest	US-07308	Yes
x																								2	2	0	Release 1-2	Clevest	L+G/Clevest	US-07298	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
x																								0	0	0	Release 1-2	Clevest	L+G/Clevest	#N/A	Yes
		x																						1	0	1	Release 1-2	PPL	L+G	US-08573	
		x																						1	0	1	Release 1-2	PPL	L+G	US-08574	
		x																						1	0	1	Release 1-2	PPL	L+G	US-08575	
	x	x																						3	0	3	Release 1-2	PPL	L+G	US-08577	
	X	x																						1	0	1	Release 1-2	PPL		US-08578	
		x																						1	0	1	Release 1-2	PPL	L+G	US-08579	
		x																						2	0	2	Release 1-2	PPL	L+G	US-08580	
		x																						1	0	1	Release 1-2	PPL	L+G	US-08581	

Redacted

		x																				0	0	0	Release 1-2	PPL		US-08582	
		x																				0	0	0	Release 1-2	PPL		US-08583	
		x																				0	0	0	Release 1-2	PPL		US-08584	
		x																				0	0	0	Release 1-2	PPL		US-08585	
		x																				1	0	1	Release 1-2	PPL	L+G	US-08586	
		x																				1	0	1	Release 1-2	PPL	L+G	US-08587	
		x																				0	0	0	Release 1-2	PPL		US-08588	
		x																				0	0	0	Release 1-2	PPL		US-08589	
		x																				0	0	0	Release 1-2	PPL		US-08590	
		x																				0	0	0	Release 1-2	PPL		US-08591	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09608	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09610	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09611	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09612	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09613	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09614	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09616	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09617	
	x																					1	0	1	Release 3-6	PPL	L+G	US-09618	
	x																					0	0	0	Release 3-6	PPL		US-09620	

Redacted

	x																						1	0	1	Release 3-6	PPL	L+G	US-09621	
	x																						1	0	1	Release 3-6	PPL	L+G	US-09622	
	x																						1	0	1	Release 3-6	PPL	L+G	US-09623	
	x																						1	0	1	Release 3-6	PPL	L+G	US-09624	
	x																						0	0	0	Release 3-6	PPL		US-09625	
	x																						1	0	1	Release 3-6	PPL	L+G	US-09626	
	x																						1	0	1	Release 3-6	PPL	L+G	US-09627	
	x																						0	0	0	Release 3-6	PPL		US-09628	
	x																						1	0	1	Release 3-6	PPL	L+G	#N/A	
	x																						1	0	1	Release 3-6	PPL	L+G	US-09630	
	x																						1	0	1	Release 3-6	PPL	L+G	US-09629	
			x																				1	1	0	Release 1-2	TCS	L+G/Itron	US-11532	Yes
			x																				1	1	0	Release 1-2	TCS	L+G/Itron	US-11533	Yes
			x																				1	1	0	Release 1-2	Metrix IDR	Metrix IDR	US-11534	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11536	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11537	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11538	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11539	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11540	
			x																				0	0	0	Release 1-2	L+G	L+G	US-11541	Yes
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11542	
			x																				0	0	0	Release 1-2	L+G	L+G	US-11543	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11544	Yes

Redacted

			x																				0	0	0	Release 1-2	L+G	L+G	US-11545	Yes
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11546	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11547	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11548	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11549	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11550	
			x																				0	0	0	Release 1-2	L+G	L+G	US-11551	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11552	Yes
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11553	
			x																				0	0	0	Release 1-2	L+G	L+G	US-11555	Yes
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11556	
			x																				0	0	0	Release 1-2	Metrix IDR	Metrix IDR	US-11557	
			x								x												1	1	0	Release 1-2	Metrix IDR	Metrix IDR	US-11558	
			x																				0	0	0	Release 1-2	L+G	L+G	US-11559	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11560	Yes
			x																				1	1	0	Release 1-2	L+G	L+G	US-11562	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11563	Yes

Redacted

			x											x									1	1	0	Release 1-2	L+G	L+G	US-11564	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11565	Yes
			x											x									1	1	0	Release 1-2	L+G	L+G	US-11566	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11567	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11568	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11569	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11570	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11571	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-11572	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12519	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12632	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12633	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12634	Yes
			x																				1	1	0	Release 1-2	L+G	L+G	US-12520	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12635	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12637	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12521	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12638	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12639	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12522	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12524	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12640	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12525	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12526	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12527	Yes
			x			x																	2	2	0	Release 1-2	L+G	L+G	US-12643	Yes
			x																				1	1	0	Release 1-2	L+G	L+G	US-12644	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12528	Yes
			x												x								1	1	0	Release 1-2	L+G	L+G	US-12529	Yes
			x																				0	0	0	Release 1-2	L+G	L+G	US-12531	Yes

Redacted

																							0	0	0	Release 1-2	L+G	L+G	US-13485	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13487	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13488	Yes	
															x								1	1	0	Release 1-2	L+G	L+G	US-13489	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13491	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13492	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13493	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13494	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13495	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13501	Yes	
									x														1	1	0	Release 1-2	L+G	L+G	US-13504	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13505	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13506	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13508	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13509	Yes	
																							0	0	0	Release 1-2	L+G	L+G	US-13510	Yes	
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												x											1	1	0	Release 1-2	L+G	L+G	US-13516	Yes	
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				x																							Hartigen	Hartigen	US-13490	Yes	
				x											x								1	1	0	Release 1-2	Hartigen	Hartigen	US-14645	Yes	
																							0	0	0	Release 1-2	Hartigen	L+G/Hartiger	US-14646	Yes	
				x																			0	0	0	Release 1-2	Hartigen	Hartigen	US-14473	Yes	
				x																			0	0	0	Release 1-2	Hartigen	Hartigen	US-14647	Yes	
				x																			0	0	0	Release 1-2	Hartigen	Hartigen	US-14474	Yes	
															x								0	0	0	Release 1-2	Hartigen	Hartigen	US-14475	Yes	
				x																			0	0	0	Release 1-2	Hartigen	Hartigen	US-14477	Yes	
									x														0	0	0	Release 3-6	L+G	L+G	US-06215		
				x																			0	0	0	Release 1-2	Hartigen	Hartigen	US-14478	Yes	
															x								0	0	0	Release 1-2	Hartigen	Hartigen	US-14479	Yes	
																							0	0	0	Release 1-2	Hartigen	Hartigen	US-14481	Yes	#N/A

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																						1	1	0	Release 1-2	L+G	L+G	#N/A	Yes
																						1	0	1	Release 3-6	L+G	L+G	#N/A	Yes
																						1	0.4	0.6	Release 1-2	L+G	L+G	#N/A	Yes
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																						1	1	0	Release 1-2	L+G	L+G	US-15273	Yes
																						1	1	0	Release 1-2	L+G	L+G	#N/A	Yes
																						1	1	0	Release 1-2	L+G	L+G	US-15286	Yes
																						1	0	1	Release 1-2	L+G	L+G	US-15657	Yes

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			x																					0	0	0	Release 1-2	TCS	Itron	US-16593		
																								0	0	0	Release 1-2	Clevest	Clevest	#N/A		Yes
			x																					0	0	0	Release 1-2	TCS	Itron	US-16595		
			x																					0	0	0	Release 1-2	TCS	Itron	US-16596		
			x																					0	0	0	Release 1-2	TCS	Itron	US-16597		
			x																					0	0	0	Release 1-2	TCS	Itron	US-16600		
																								0	0	0	Release 1-2	L+G	L+G			Yes
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																								0	0	0	Release 1-2	L+G	L+G			Yes
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																							0	0	0	Release 1-2	L+G	L+G	yes
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									x														1	0	1	Release 3-6	L+G		Yes
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									x														1	0.5	0.5	Release 1-2	L+G	TCS	Yes
																							0	0	0	Release 1-2	L+G	TCS	Yes

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RI Metering Program Implementation

User Stories Matrix

Rqmt Ref	User Story Description							User Story Transfer	User Story Sequence				
Req # - IMPORTANT	US #	Business Area / System	SCRUM Board	Process +IMPORTANT +Tag	Epic	Feature	User Story	User Story and User #	PI	Start	Finish	Sprint Team	Order for Chart
REQ-02001	US-02001	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing for MV90, AMR & AMI electric	I shall be able to receive the request for meter asset testing from Asset & Inventory Managament System for MV90, AMR and AMI meters (Electric)	US-02001 I shall be able to receive the request for meter asset testing from Asset & Inventory Managament System for MV90, AMR and AMI meters (Electric)	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02002	US-02002	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to send the testing result after testing to asset & inventory management system	US-02002 I shall be able to send the testing result after testing to asset & inventory management system	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02008	US-02003	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to test the metering assets as per PUC test guidelines	US-02003 I shall be able to test the metering assets as per PUC test guidelines	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02011	US-02004	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Asset Configuration for MV90, AMR & AMI electric	I shall be able to associate / disassociate of network comms modules with meters during testing	US-02004 I shall be able to associate / disassociate of network comms modules with meters during testing	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02008	US-02005	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to perform the acceptance testing of electricity metering assets	US-02005 I shall be able to perform the acceptance testing of electricity metering assets	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02014	US-02006	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to perform register validation test as part of functional testing	US-02006 I shall be able to perform register validation test as part of functional testing	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02014	US-02007	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to perform reading validation test as part of functional testing	US-02007 I shall be able to perform reading validation test as part of functional testing	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02014	US-02008	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to perform two-way communication test as part of functional testing	US-02008 I shall be able to perform two-way communication test as part of functional testing	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02014	US-02009	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to perform business event validation test as part of functional testing	US-02009 I shall be able to perform business event validation test as part of functional testing	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02014	US-02010	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to perform physical event validation test as part of functional testing	US-02010 I shall be able to perform physical event validation test as part of functional testing	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02013	US-02011	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI electric	I shall have the a ability to run a pre-defined Dynamic Sequence of tests on a meter from a connected test board.	US-02011 I shall have the a ability to run a pre-defined Dynamic Sequence of tests on a meter from a connected test board.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02016	US-02012	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI electric	I shall be able to change the configuration of testing sequence based on which testing will be performed.	US-02012 I shall be able to change the configuration of testing sequence based on which testing will be performed.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02017	US-02013	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI electric	I shall be able to track all unique versions of configured test sequences.	US-02013 I shall be able to track all unique versions of configured test sequences.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02018	US-02014	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI electric	I shall have the ability to run pre-programmed meter tests automatically	US-02014 I shall have the ability to run pre-programmed meter tests automatically	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02020	US-02015	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to measure the test result test and compare the test result to the test program's pass criteria.	US-02015 I shall be able to measure the test result test and compare the test result to the test program's pass criteria.	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02021	US-02016	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to view/review the test results based on the input criteria.	US-02016 I shall be able to view/review the test results based on the input criteria.	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02026	US-02017	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to get a summary of test results on Testing Dashboard upon completion of the testing of the sample group.	US-02017 I shall be able to get a summary of test results on Testing Dashboard upon completion of the testing of the sample group.	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02027	US-02018	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall have the ability to perform First Article Testing activities for all forms and classes of all type of meters, network com devices, CTs/PTs,Revelo meters	US-02018 I shall have the ability to perform First Article Testing activities for all forms and classes of all type of meters, network com devices, CTs/PTs,Revelo meters	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02028	US-02019	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall have the ability to run metrology accuracy tests on a First Article Meter.	US-02019 I shall have the ability to run metrology accuracy tests on a First Article Meter.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02030	US-02020	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI electric	I shall have the ability to verify that the correct firmware and software is installed on a First Article Meter (AMI)	US-02020 I shall have the ability to verify that the correct firmware and software is installed on a First Article Meter (AMI)	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-02031	US-02021	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall have the ability to test communication components of a First Article Meter that are available through the End Point Tests Manager software integration.	US-02021 I shall have the ability to test communication components of a First Article Meter that are available through the End Point Tests Manager software integration.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02032	US-02022	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall have the ability to test events of a First Article Meter that are available through the End Point Tests Manager software integration.	US-02022 I shall have the ability to test events of a First Article Meter that are available through the End Point Tests Manager software integration.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02036	US-02023	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI electric	I shall be able to interface with meter shop test stations (WECO, TESCO).	US-02023 I shall be able to interface with meter shop test stations (WECO, TESCO).	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-06026	US-06024	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing for MV90, AMR & AMI electric	I shall be able to identify removed meters that have an As Found accuracy greater than the As Left data, the source data will be from Infor.	US-06024 I shall be able to identify removed meters that have an As Found accuracy greater than the As Left data, the source data will be from Infor.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-06058	US-06025	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI electric	I shall be able to perform testing Of AMI Meters Returned to the Meter Shop For Testing And Return To Inventory	US-06025 I shall be able to perform testing Of AMI Meters Returned to the Meter Shop For Testing And Return To Inventory	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-04002	US-04026	Metering - Meter Data Management	RIEMTR MDMS	PO to Inventory Management	Meter configuration	CSS Master data sync	I shall be able to view the account information from CSS both current and historical	US-04026 I shall be able to view the account information from CSS both current and historical	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04002	US-04027	Metering - Meter Data Management	RIEMTR MDMS	PO to Inventory Management	Meter configuration	CSS Master data sync	I shall be able to view the Premise information from CSS both current and historical	US-04027 I shall be able to view the Premise information from CSS both current and historical	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04002	US-04028	Metering - Meter Data Management	RIEMTR MDMS	PO to Inventory Management	Meter configuration	CSS Master data sync	I shall be able to view the meter install information from CSS both current and historical	US-04028 I shall be able to view the meter install information from CSS both current and historical	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04002	US-04029	Metering - Meter Data Management	RIEMTR MDMS	PO to Inventory Management	Meter configuration	CSS Master data sync	I shall be able to view the Rate information from CSS both current and historical	US-04029 I shall be able to view the Rate information from CSS both current and historical	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04002	US-04030	Metering - Meter Data Management	RIEMTR MDMS	PO to Inventory Management	Meter configuration	CSS Master data sync	I shall be able to view the Supplier information from CSS both current and historical	US-04030 I shall be able to view the Supplier information from CSS both current and historical	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04003	US-04031	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Encryption/Management	Pended read Management	I shall be able to view Pended Meter reads in MDMS	US-04031 I shall be able to view Pended Meter reads in MDMS	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04003	US-04032	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Encryption/Management	Pended read Management	I shall be able to tale action on Pended Meter reads in MDMS (approve, edit etc.)	US-04032 I shall be able to tale action on Pended Meter reads in MDMS (approve, edit etc.)	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04004	US-04033	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Collect AMR reads and events	I shall be able to receive reads and events from AMR systems(drive by/walk by)	US-04033 I shall be able to receive reads and events from AMR systems(drive by/walk by)	PI1	8/29/22	10/21/22	3/4. MDMS+VEE	1
REQ-04004	US-04034	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Collect AMI reads and events	I shall be able to receive reads and events from AMI head end systems at XX frequency	US-04034 I shall be able to receive reads and events from AMI head end systems at XX frequency	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04004/04007	US-04035	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Collect MV90 reads and events	I shall be able to receive reads and events from electric MV90 system.	US-04035 I shall be able to receive reads and events from electric MV90 system.	PI1	8/29/22	10/21/22	3/4. MDMS+VEE	1
REQ-04004/04007	US-04036	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Collect MV90 reads and events	I shall be able to receive reads and events from gas MV90 system.	US-04036 I shall be able to receive reads and events from gas MV90 system.	PI1	8/29/22	10/21/22	3/4. MDMS+VEE	1
REQ-04005	US-04037	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Configuring frequency for AMI read collection	I shall be able to configure frequency for receving the AMI reads.	US-04037 I shall be able to configure frequency for receving the AMI reads.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04006	US-04038	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Configuring frequency for MV90 read collection	I shall be able to configure frequency for receving the MV90 reads.	US-04038 I shall be able to configure frequency for receving the MV90 reads.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04008	US-04039	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Collect AMR reads and events	I shall receive AMR reads at least once a day.	US-04039 I shall receive AMR reads at least once a day.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04009	US-04040	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	VEE	I shall be able to view the raw and validated reads with details	US-04040 I shall be able to view the raw and validated reads with details	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04012	US-04041	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	AMR VEE	I shall be able to view raw, working, validated and final usage data for AMR reads with versioning.	US-04041 I shall be able to view raw, working, validated and final usage data for AMR reads with versioning.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04012,4016	US-04042	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	AMI VEE	I shall be able to view raw, working, validated and final usage data for AMI reads with versioning.	US-04042 I shall be able to view raw, working, validated and final usage data for AMI reads with versioning.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04012,4016	US-04043	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	MV90 VEE	I shall be able to view raw, validated and final usage data for MV90 gas reads with versioning.	US-04043 I shall be able to view raw, validated and final usage data for MV90 gas reads with versioning.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04012,4016	US-04044	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	MV90 VEE	I shall be able to view raw, validated and final usage data for MV90 electric reads with versioning.	US-04044 I shall be able to view raw, validated and final usage data for MV90 electric reads with versioning.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04013	US-04045	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	Upload AMR historical data	I shall be able to upload AMR historical data in bulk.	US-04045 I shall be able to upload AMR historical data in bulk.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04013	US-04046	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	Upload AMI historical data	I shall be able to upload AMI historical data in bulk.	US-04046 I shall be able to upload AMI historical data in bulk.	PI5	6/26/23	9/1/23	3/4. MDMS+VEE	5
REQ-04013	US-04047	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	Upload MV90 Gas historical data	I shall be able to upload Mv90 Gas historical data in bulk.	US-04047 I shall be able to upload Mv90 Gas historical data in bulk.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04013	US-04048	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	Upload MV90 Electric historical data	I shall be able to upload MV90 Electrical historical data in bulk.	US-04048 I shall be able to upload MV90 Electrical historical data in bulk.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04014	US-04049	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Meter configuration	Register configuration	I shall have ability to configure registers for all meter types.	US-04049 I shall have ability to configure registers for all meter types.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04017	US-04050	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Meter configuration	Holiday & Bill cycle view	I shall be able to view the NE/CSS annual calendar for holidays and bill cycle	US-04050 I shall be able to view the NE/CSS annual calendar for holidays and bill cycle	PI5	6/26/23	9/1/23	3/4. MDMS+VEE	5
REQ-04018	US-04051	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	MV90 Interval Data Capture	I shall be able to store sixty days MV90 interval data on predefined format.	US-04051 I shall be able to store sixty days MV90 interval data on predefined format.	PI1	8/29/22	10/21/22	3/4. MDMS+VEE	1

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REQ-04019	US-04052	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	Billing Read	I shall be able to support customer billing often requiring combination of multiple meters and multiple channels to derive the final values for customer billing.	US-04052 I shall be able to support customer billing often requiring combination of multiple meters and multiple channels to derive the final values for customer billing.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04019	US-04053	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	Interval based interchange accounting support	I shall be able to support interval based interchange accounting (tie lines, generators, etc), often requiring combination of multiple meters and multiple channels to derive the final values for interchange.	US-04053 I shall be able to support interval based interchange accounting (tie lines, generators, etc), often requiring combination of multiple meters and multiple channels to derive the final values for interchange.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04020	US-04054	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	Billing Read	I shall be able to support Gas MV90 customer billing	US-04054 I shall be able to support Gas MV90 customer billing	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04021	US-04055	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	Drive by billing read	I shall be able to collect gas meter data in MDMS to support normal gas customer billing using drive by /Pedestrain	US-04055 I shall be able to collect gas meter data in MDMS to support normal gas customer billing using drive by /Pedestrain	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04022	US-04056	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	MV 90 Channel Data Collection	I shall be able to receive MV90 meter channel data from multiple channels.	US-04056 I shall be able to receive MV90 meter channel data from multiple channels.	PI1	8/29/22	10/21/22	3/4. MDMS+VEE	1
REQ-04022	US-04057	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	MV 90 Channel Data Storage	I shall be able to store MV90 meter channel data from multiple channels.	US-04057 I shall be able to store MV90 meter channel data from multiple channels.	PI1	8/29/22	10/21/22	3/4. MDMS+VEE	1
REQ-04022	US-04058	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Meter configuration	Channel support configuration	I shall be able to configure the number of channels supporting a maximum number of 48 channels.	US-04058 I shall be able to configure the number of channels supporting a maximum number of 48 channels.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04025	US-04059	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, estimation & editing	Interval read estimation	I shall be able to estimate interval data for all accounts each day, including monthly read meters.	US-04059 I shall be able to estimate interval data for all accounts each day, including monthly read meters.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04025	US-04060	Metering - Meter Data Management	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Interval read estimation	I shall be able to provide estimated interval data to MDMS Retail Settlement.	US-04060 I shall be able to provide estimated interval data to MDMS Retail Settlement.	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04026	US-04061	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	Interval read estimation	I shall be able estimating of interval data shall work for customers with generation behind the meter i.e. the estimate could be either delivered or received.	US-04061 I shall be able estimating of interval data shall work for customers with generation behind the meter i.e. the estimate could be either delivered or received.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04027	US-04062	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	Billing usage	I shall be able to send billing usage include estimate for the billing period to CSS for Billing	US-04062 I shall be able to send billing usage include estimate for the billing period to CSS for Billing	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04028	US-04063	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	Request Connect/Disconnect	I shall be able to recieved request from CSS to perform connect/disconnect	US-04063 I shall be able to recieved request from CSS to perform connect/disconnect	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04028	US-04064	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	Request Connect/Disconnect	I shall be able forward connect/disconnect request to AMI Head end system	US-04064 I shall be able forward connect/disconnect request to AMI Head end system	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04028	US-04065	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	Meter connect response transaction	I shall be able to recieved connect/disconnect response from AMI HE	US-04065 I shall be able to recieved connect/disconnect response from AMI HE	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04028	US-04066	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	Meter command acknowledgment	I shall be able to sent connect/disconnect recieved acknowldege to CSS	US-04066 I shall be able to sent connect/disconnect recieved acknowldege to CSS	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04029	US-04067	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Meter configuration	MV90 Generation Account	I shall be able to accept MV90 generation account data	US-04067 I shall be able to accept MV90 generation account data	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04029	US-04068	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Meter configuration	MV90 Generation data	I shall be able to modify generated MV90 account only have positive channel data	US-04068 I shall be able to modify generated MV90 account only have positive channel data	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04030/4032	US-04069	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Meter configuration	MV90 Interchange data	I shall be able to accept MV90 interchange account data with account ID in the name of file	US-04069 I shall be able to accept MV90 interchange account data with account ID in the name of file	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04033	US-04070	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	MV90 Interchange data	I shall be able to check the validation results to match the MV90 interchange account created name to the appropriate usage data for the interchange account within MDMS to create an entity, which is defined as the account ID - meter pair.	US-04070 I shall be able to check the validation results to match the MV90 interchange account created name to the appropriate usage data for the interchange account within MDMS to create an entity, which is defined as the account ID - meter pair.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04036	US-04071	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	Historical attribute changes master view	I shall be able to view the master data historical attribute changes (e.g. rate change, supplier change) for an agreed upon duration.	US-04071 I shall be able to view the master data historical attribute changes (e.g. rate change, supplier change) for an agreed upon duration.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04037	US-04072	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	Historical interval information check	I shall be able to check historical interval information for EDI accounts for at minimum 4 years.	US-04072 I shall be able to check historical interval information for EDI accounts for at minimum 4 years.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04038	US-04073	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	Estimated read history check	I shall be able to check the read history in case an estimated read is overridden with the actual read using date and time stamp.	US-04073 I shall be able to check the read history in case an estimated read is overridden with the actual read using date and time stamp.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04039	US-04074	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	MV90 Estimated read history check	I shall be able to check the read history in case an MV90 estimated read is overridden with the actual read using date and time stamp.	US-04074 I shall be able to check the read history in case an MV90 estimated read is overridden with the actual read using date and time stamp.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04040	US-04075	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Instantaneous meter data	I shall be able to check instantaneous meter data (i.e. temperature, current, voltage, power factor, etc	US-04075 I shall be able to check instantaneous meter data (i.e. temperature, current, voltage, power factor, etc	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04041	US-04076	Metering - Meter Data Management	RIEMTR MDMS	Service orders/Exception/ Customer services handling	Exception handling	Triggering SO	I shall be able to check if MDMS can generate a service order request to CSS based on received reads.	US-04076 I shall be able to check if MDMS can generate a service order request to CSS based on received reads.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04041	US-04077	Metering - Meter Data Management	RIEMTR MDMS	Service orders/Exception/ Customer services handling	Exception handling	Triggering SO	I shall be able to check if MDMS can generate a service order request to CSS based on failed data quality checks	US-04077 I shall be able to check if MDMS can generate a service order request to CSS based on failed data quality checks	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04041	US-04078	Metering - Meter Data Management	RIEMTR MDMS	Service orders/Exception/ Customer services handling	Exception handling	Triggering SO	I shall be able to check if MDMS can generate a service order request to CSS based on failures to return missing read requests	US-04078 I shall be able to check if MDMS can generate a service order request to CSS based on failures to return missing read requests	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04042	US-04079	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Publish daily meter data for downstream systems	I shall be able to check that MDMS can publish daily meter data for downstream systems	US-04079 I shall be able to check that MDMS can publish daily meter data for downstream systems	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04042	US-04080	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Publish monthly meter data for downstream systems	I shall be able to check that MDMS can publish monthly meter data for downstream systems	US-04080 I shall be able to check that MDMS can publish monthly meter data for downstream systems	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04042	US-04081	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Publish interval meter data for downstream systems	I shall be able to check that MDMS can publish interval meter data for downstream systems	US-04081 I shall be able to check that MDMS can publish interval meter data for downstream systems	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04043	US-04082	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Publish Account and meter interval data upon request	I shall be able to return account level and meter level interval data to a third party portal or Owner system upon request.	US-04082 I shall be able to return account level and meter level interval data to a third party portal or Owner system upon request.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04044	US-04083	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	On demand request support-Publish Account and meter data	I shall be able to check that MDMS can support on demand requests to return requested meter data for an individual meter	US-04083 I shall be able to check that MDMS can support on demand requests to return requested meter data for an individual meter	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04044	US-04084	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	On demand request support-Publish Account and meter data	I shall be able to check that MDMS can support on demand requests to return requested meter data for a group of meters	US-04084 I shall be able to check that MDMS can support on demand requests to return requested meter data for a group of meters	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04046	US-04085	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Off cycle read for move in/out	I shall be able to manage transactions that occur in the off-cycle read processes for move in/out	US-04085 I shall be able to manage transactions that occur in the off-cycle read processes for move in/out	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04046	US-04086	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Off cycle read for meter exchange	I shall be able to manage transactions that occur in the off-cycle read processes for meter exchange	US-04086 I shall be able to manage transactions that occur in the off-cycle read processes for meter exchange	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04046	US-04087	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Off cycle read for supplier switch	I shall be able to manage transactions that occur in the off-cycle read processes for supplier switch	US-04087 I shall be able to manage transactions that occur in the off-cycle read processes for supplier switch	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04046	US-04088	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Off cycle read for RCD	I shall be able to manage transactions that occur in the off-cycle read processes for RCD	US-04088 I shall be able to manage transactions that occur in the off-cycle read processes for RCD	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04047	US-04089	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	On demand request support	I shall be able to call AMI Head end for demand requests for meter data	US-04089 I shall be able to call AMI Head end for demand requests for meter data	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04048	US-04090	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Meter configuration	Meter type configuration	I shall be able to configure different meter types for AMI headend	US-04090 I shall be able to configure different meter types for AMI headend	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04049	US-04091	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Ad-Hoc support for Demand reset	I shall be able to support ad-hoc request for demand reset	US-04091 I shall be able to support ad-hoc request for demand reset	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04049	US-04092	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Scheduled support for demand reset	I shall be able to support scheduled request for demand reset	US-04092 I shall be able to support scheduled request for demand reset	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04051	US-04093	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Unmetered account	I shall be able to identify the unmetered account by rate and whether the account type is lighting or non lightning rate	US-04093 I shall be able to identify the unmetered account by rate and whether the account type is lighting or non lightning rate	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04052	US-04094	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Collect borderline and unmetered data	I shall be able to recieve borderline and unmetered data	US-04094 I shall be able to recieve borderline and unmetered data	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04052	US-04095	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Store borderline and unmetered data	I shall be able to store borderline and unmetered data	US-04095 I shall be able to store borderline and unmetered data	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04053	US-04096	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Sunrise/ Sunset	I shall be able to accept file from CSS when determined value from sunise/sunset for a given year	US-04096 I shall be able to accept file from CSS when determined value from sunise/sunset for a given year	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-04055	US-04097	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Owner Configurable Disconnect	I shall be able to perform remote disconnect by owner configurable	US-04097 I shall be able to perform remote disconnect by owner configurable	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04056	US-04098	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Remote Connect/Disconnect	I shall be accept remote connect/disconnect from CSS	US-04098 I shall be accept remote connect/disconnect from CSS	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04057	US-04099	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Remote Connect	I shall be able to send remote connect request of composite transaction no later than 8:00 on a request's date of execution if the CSS request is future dated for an RF meter to AMI HE	US-04099 I shall be able to send remote connect request of composite transaction no later than 8:00 on a request's date of execution if the CSS request is future dated for an RF meter to AMI HE	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04058	US-04100	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Request Transction Status	I shall be request for successful completion or failure of each part of a composite transaction to CSS	US-04100 I shall be request for successful completion or failure of each part of a composite transaction to CSS	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04058	US-04101	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Response Transction Status	I shall be received for success or failure of each part of a remote transction	US-04101 I shall be received for success or failure of each part of a remote transction	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6

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REQ-04060	US-04102	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Connect Verification	I shall be the ability to accept from AMI HE a connect verification.	US-04102 I shall be the ability to accept from AMI HE a connect verification.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04061	US-04103	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Connect Verification	I shall be store a connect verification from AMI HE.	US-04103 I shall be store a connect verification from AMI HE.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04062	US-04104	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Connect Verification	I shall be send CSS a connect verification.	US-04104 I shall be send CSS a connect verification.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04063	US-04105	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	On demand request	I shall be ability to accept from CSS an on-demand read request.	US-04105 I shall be ability to accept from CSS an on-demand read request.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04064	US-04106	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	On Demand Read Collection	I shall be able to collect following data from HES kWh, demand, Time of Use, time of execution, and date of execution when an RF meter processes the on demand read command successfully.	US-04106 I shall be able to collect following data from HES kWh, demand, Time of Use, time of execution, and date of execution when an RF meter processes the on demand read command successfully.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04064	US-04107	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	Meter Data Process	I shall be able to Process following data from HES kWh, demand, Time of Use, time of execution, and date of execution when an RF meter processes the on demand read command successfully.	US-04107 I shall be able to Process following data from HES kWh, demand, Time of Use, time of execution, and date of execution when an RF meter processes the on demand read command successfully.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04064	US-04108	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	On-Demand Meter Data Storage	I shall be able to Store following data from HES kWh, demand, Time of Use, time of execution, and date of execution when an RF meter processes the on demand read command successfully.	US-04108 I shall be able to Store following data from HES kWh, demand, Time of Use, time of execution, and date of execution when an RF meter processes the on demand read command successfully.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04065	US-04109	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Remote Transction Status	I shall be update CSS with success or failure information for a remote transaction.	US-04109 I shall be update CSS with success or failure information for a remote transaction.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04066	US-04110	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Exception Error	As part of remote connect/disconnect,I shall be send a voltage error to CSS upon receipt of the voltage error from a Head End.	US-04110 As part of remote connect/disconnect,I shall be send a voltage error to CSS upon receipt of the voltage error from a Head End.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04067	US-04111	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read data format	Abnormal Voltage	I shall be able to send customer side abnormal voltage data to third party applications (such as AMI data analytics) in a predefined file format.	US-04111 I shall be able to send customer side abnormal voltage data to third party applications (such as AMI data analytics) in a predefined file format.	PI4	4/3/23	6/23/23	3/4. AMI CC	4
REQ-04068	US-04112	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Daily shift Read receive request	I shall be able to receive daily shift read request from CSS for final bill creation process.	US-04112 I shall be able to receive daily shift read request from CSS for final bill creation process.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04069	US-04113	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Daily shift Read	I shall be able to provide daily shift read to CSS for final bill creation	US-04113 I shall be able to provide daily shift read to CSS for final bill creation	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04070	US-04114	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command Request Management	Cut-Out Transaction request	I shall be receieved a remote cut-out disconnect composite transaction request to open a switch within a meter immediately after CSS accepts a "Pending Remote Cut" status from Infor and power is off at the premise from CSS	US-04114 I shall be receieved a remote cut-out disconnect composite transaction request to open a switch within a meter immediately after CSS accepts a "Pending Remote Cut" status from Infor and power is off at the premise from CSS	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04071	US-04115	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Collect MV90 Interval & Anchor Reads	I shall be able to received MV90 data on a file that contains all of the intervals for each day and the anchor reads.	US-04115 I shall be able to received MV90 data on a file that contains all of the intervals for each day and the anchor reads.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04071	US-04116	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Store MV90 Interval & Anchor Reads	I shall be able to store MV90 data on a file that contains all of the intervals for each day and the anchor reads.	US-04116 I shall be able to store MV90 data on a file that contains all of the intervals for each day and the anchor reads.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04072	US-04117	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	MV90 Electric Data	I shall be able to have the ability to collect working (actual) data from MV90 in a file format that contains the following data: - 5/15 minute values for all channels (kWh, KVARH, etc) for Elec -Meter serial number -Start time reading for the day -End time reading for the day	US-04117 I shall be able to have the ability to collect working (actual) data from MV90 in a file format that contains the following data: - 5/15 minute values for all channels (kWh, KVARH, etc) for Elec -Meter serial number -Start time reading for the day -End time reading for the day	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04072	US-04118	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	MV90 Gas Data	I shall be able to have the ability to collect working (actual) data from MV90 in a file format that contains the following data: - 60 minute values for all channels (M3,GJ etc) for Gas -Start time reading for the day -End time reading for the day	US-04118 I shall be able to have the ability to collect working (actual) data from MV90 in a file format that contains the following data: - 60 minute values for all channels (M3,GJ etc) for Gas -Start time reading for the day -End time reading for the day	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04073	US-04119	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	MV90 Partial Day Record	I shall have the ability to accept from MV90 a partial day record for an account on a file.	US-04119 I shall have the ability to accept from MV90 a partial day record for an account on a file.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04075	US-04120	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	VEE	I shall be able to omit an MV90 estimated read from the following billing processes if an MV90 estimated read is a product of the VEE process: '- Complex Billing Bolt-on Process	US-04120 I shall be able to omit an MV90 estimated read from the following billing processes if an MV90 estimated read is a product of the VEE process: '- Complex Billing Bolt-on Process	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04074	US-04121	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	MV90 Interval & Anchor Reads	I shall have the ability to generate a daily shift read when I receives multiple day data that contains all of the intervals for each day and the anchor reads.	US-04121 I shall have the ability to generate a daily shift read when I receives multiple day data that contains all of the intervals for each day and the anchor reads.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04075	US-04122	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	VEE	I shall be able to omit an MV90 estimated read from the following billing processes if an MV90 estimated read is a product of the VEE process:	US-04122 I shall be able to omit an MV90 estimated read from the following billing processes if an MV90 estimated read is a product of the VEE process:	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04076	US-04123	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	MV90 Estimation Reads	I shall have the ability to accept an estimated read from MV90 as actual (working) data when I receives an estimated read from MV90.	US-04123 I shall have the ability to accept an estimated read from MV90 as actual (working) data when I receives an estimated read from MV90.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04077	US-04124	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	MV90 Estimation Reads	I shall use an MV90 estimated read when I receives estimates from MV90 for the following billing processes: '- Complex Billing Bolt-on Process	US-04124 I shall use an MV90 estimated read when I receives estimates from MV90 for the following billing processes: '- Complex Billing Bolt-on Process	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04077	US-04125	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	MV90 Estimation Reads	I shall use an MV90 estimated read when I receives estimates from MV90 for the following billing processes: - RTP / TOU Billing Process	US-04125 I shall use an MV90 estimated read when I receives estimates from MV90 for the following billing processes: - RTP / TOU Billing Process	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04078	US-04126	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Demand Reset Verification	I shall be accept following data from from Command Center : - Demand reset verification	US-04126 I shall be accept following data from from Command Center : - Demand reset verification	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04078	US-04127	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Current Peak Demand	I shall be accept following data from from Command Center : - Current peak demand (max KW)	US-04127 I shall be accept following data from from Command Center : - Current peak demand (max KW)	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04078	US-04128	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Time of Peak Demand	I shall be accept following data from from Command Center : - Time of peak demand (max KW)	US-04128 I shall be accept following data from from Command Center : - Time of peak demand (max KW)	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04078	US-04129	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Current Number of Demand Resets	I shall be accept following data from from Command Center : - Current number of demand resets	US-04129 I shall be accept following data from from Command Center : - Current number of demand resets	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04078	US-04130	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Previous number of demand resets	I shall be accept following data from from Command Center : - Previous number of demand resets	US-04130 I shall be accept following data from from Command Center : - Previous number of demand resets	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04079	US-04131	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Sending billing demand reset data to CSS	I shall be able to send billing associated maximum KWH in the demand reset data to CSS	US-04131 I shall be able to send billing associated maximum KWH in the demand reset data to CSS	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04079	US-04132	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Maximum KW	I shall be recieved maximum KW in the demand reset data from Command Center	US-04132 I shall be recieved maximum KW in the demand reset data from Command Center	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04081	US-04133	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Pricing Stream Application	I shall be able to apply an externally provided pricing stream [such as Locational Marginal Pricing (LMP), Loss Factor, EGS Supply Risk Factor, GRT Gross Up Factor)] to the kWh or kW data to create a calculated energy charge to be sent to CSS.	US-04133 I shall be able to apply an externally provided pricing stream [such as Locational Marginal Pricing (LMP), Loss Factor, EGS Supply Risk Factor, GRT Gross Up Factor)] to the kWh or kW data to create a calculated energy charge to be sent to CSS.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04082	US-04134	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read Processing	RTP Charge	I shall be transfer the total RTP charge (based on kWh used) and total usage to Owner systems and third party systems.	US-04134 I shall be transfer the total RTP charge (based on kWh used) and total usage to Owner systems and third party systems.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04083	US-04135	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read Processing	RTP/TOU Biiling	I shall be able to receive and store request file for RTP/TOU billing reads per four-day bill cycle from CSS	US-04135 I shall be able to receive and store request file for RTP/TOU billing reads per four-day bill cycle from CSS	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04084	US-04136	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read Processing	VEE RTP/TOU Biiling	I shall be send VEE'd RTP/TOU Billing data file to CSS within the billing window	US-04136 I shall be send VEE'd RTP/TOU Billing data file to CSS within the billing window	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04085	US-04137	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Interval Data Aggregation Support	I shall be able to support interval data aggregation into advanced rate structures such as CPP (critical peak pricing), TVR (time variant rate), RTP (real time pricing) programs in terms of meter read collection, validation and provisioning	US-04137 I shall be able to support interval data aggregation into advanced rate structures such as CPP (critical peak pricing), TVR (time variant rate), RTP (real time pricing) programs in terms of meter read collection, validation	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04086	US-04138	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing Support	Billing Determinant file creation	I shall be abe to have the ability to create billing determinant files for the following types of accounts: regular, complex billing, RTP,CPP and TOU.	US-04138 I shall be abe to have the ability to create billing determinant files for the following types of accounts: regular, complex billing, RTP,CPP and TOU.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04087	US-04139	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing Support	Usage Charges Calculation	I shall be able to use rate information and billing rules to determine that it shall calculate usage charges for RTP customers.	US-04139 I shall be able to use rate information and billing rules to determine that it shall calculate usage charges for RTP customers.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3

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REQ-04088	US-04140	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data provisioning	Support faster VEE mechanism	I shall be support faster VEE mechanism and make meter data available to Green Button (and for Green Button customer inquiries) within a configurable time period.	US-04140 I shall be support faster VEE mechanism and make meter data available to Green Button (and for Green Button customer inquiries) within a configurable time period.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04089	US-04141	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Complex Billing	I shall be able to received for Complex Billing meters and shall respond with Complex Billing readings and demands from CSS	US-04141 I shall be able to received for Complex Billing meters and shall respond with Complex Billing readings and demands from CSS	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04090	US-04142	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read data format	MV90 Gas-Common pre-defined formatted file	I shall be able to received common pre-defined formatted file from MV-90 Gas	US-04142 I shall be able to received common pre-defined formatted file from MV-90 Gas	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04090	US-04143	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read data format	MV90 Electric-Common pre-defined formatted file	I shall be able to received common pre-defined formatted file from MV-90 Electric.	US-04143 I shall be able to received common pre-defined formatted file from MV-90 Electric.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04091	US-04144	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	Real time pricing bill determinants calculations	I shall be able to save the backing sheet information when calculating the Real Time Pricing bill determinant to be made available via the customer portal.	US-04144 I shall be able to save the backing sheet information when calculating the Real Time Pricing bill determinant to be made available via the customer portal.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-04092	US-04145	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	CSS-bound output confirmation	I shall be able to confirm that the CSS-bound output of MDMS (to-be) and CSS-bound output of AMR data collation system and ERS (current Rhode Island systems) are same.	US-04145 I shall be able to confirm that the CSS-bound output of MDMS (to-be) and CSS-bound output of AMR data collation system and ERS (current Rhode Island systems) are same.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04093	US-04146	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data provisioning	View interval electric meter data	I shall be able to view interval Electric meter read data in Green Button within 45 minutes of interval start time	US-04146 I shall be able to view interval Electric meter read data in Green Button within 45 minutes of interval start time	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04094	US-04147	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data provisioning	View interval gas meter data	I shall be able to view interval gas meter read data in Green Button within 8 hours of interval start time .	US-04147 I shall be able to view interval gas meter read data in Green Button within 8 hours of interval start time .	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04095	US-04148	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data provisioning	View bill quality interval data for electric meter	I shall be able to view Bill quality interval Electric meter read data in Green Button within 24 hours of interval start time .	US-04148 I shall be able to view Bill quality interval Electric meter read data in Green Button within 24 hours of interval start time .	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04095	US-04149	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data provisioning	View bill quality interval data for gas meter	I shall be able to view Bill quality interval gas meter read data in Green Button within 24 hours of interval start time .	US-04149 I shall be able to view Bill quality interval gas meter read data in Green Button within 24 hours of interval start time .	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04096	US-04150	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	Data Management	I shall be able to view 48 months of historical meter reading data , which is imported from RI systems.	US-04150 I shall be able to view 48 months of historical meter reading data , which is imported from RI systems.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04097	US-04151	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	24 months hisotrical data view	I shall be able to view 24 months of historical meter reading data.	US-04151 I shall be able to view 24 months of historical meter reading data.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04097	US-04152	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	2 year data check	I shall be able to check the data prior to 2 years from a backup storage.	US-04152 I shall be able to check the data prior to 2 years from a backup storage.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04098	US-04153	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Move meter data to AMI data lake	I shall be able to review and move meter data to AMI Data lake through an user interface.	US-04153 I shall be able to review and move meter data to AMI Data lake through an user interface.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04099	US-04154	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Performance metrics	MDMS Performance	I shall be able to review daily MDMS Performance for loading billing determinants	US-04154 I shall be able to review daily MDMS Performance for loading billing determinants	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04100	US-04155	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Performance metrics	MDMS Performance	I shall be able to review daily MDMS Performance for loading non billing channels	US-04155 I shall be able to review daily MDMS Performance for loading non billing channels	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04101	US-04156	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	MV90 data loading	I shall be able to perform loading meter data from MV90 system Target: 100% of valid data that the MV90 Head-end system(s) provide to MDMS is loaded within 30 minutes. There are approximately 2,100 MV90 meters currently	US-04156 I shall be able to perform loading meter data from MV90 system Target: 100% of valid data that the MV90 Head-end system(s) provide to MDMS is loaded within 30 minutes. There are approximately 2,100 MV90 meters currently	PI1	8/29/22	10/21/22	3/4. MDMS+VEE	1
REQ-04102	US-04157	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	VEE MV90 Data	I shall be able to perform VEE Target: MV90 data VEE complete in 15 minutes processing time.	US-04157 I shall be able to perform VEE Target: MV90 data VEE complete in 15 minutes processing time.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04102	US-04158	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	VEE Interval Data	I shall be able to perform VEE 100% of Interval Data completed in 2 ½ hours processing time.	US-04158 I shall be able to perform VEE 100% of Interval Data completed in 2 ½ hours processing time.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04102	US-04159	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	VEE Register Reads	I shall be able to perform VEE 100% of Register Reads completed in 1 hour processing time.	US-04159 I shall be able to perform VEE 100% of Register Reads completed in 1 hour processing time.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04103	US-04160	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Performance metrics	Billing performance -Billing Determinants	I shall be able to perform Billing Performance MDMS will provide 100% of the required billing determinants. Target: 100% of Billing Reads provided by 4:30 PM daily.	US-04160 I shall be able to perform Billing Performance MDMS will provide 100% of the required billing determinants. Target: 100% of Billing Reads provided by 4:30 PM daily.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04104	US-04161	Metering - Meter Data Management	RIEMTR MDMS	Service orders/Exception/ Customer services handling	Exception handling	Meter Alarm Performance	I shall be able to perform meter alarm Performance Configured Meter alarms and events from Head End System for which I will record system. Target Percentage: 100.00% configured alarms within 1 hour	US-04161 I shall be able to perform meter alarm Performance Configured Meter alarms and events from Head End System for which I will record system. Target Percentage: 100.00% configured alarms within 1 hour	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04105	US-04162	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	Data Synchronization	I shall be able to perform Data Synchronization with CIS Target: CIS nightly synchronization should complete by 0400 daily. Note: Synchronization data to be provided to the MDMS by Midnight.	US-04162 I shall be able to perform Data Synchronization with CIS Target: CIS nightly synchronization should complete by 0400 daily. Note: Synchronization data to be provided to the MDMS by Midnight.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-04106	US-04163	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Performance metrics	Settlement Performance	I shall be able to Settlement Performance Metrics TBD – after Accelerated Development by AMI Provider (will be specified by completion of Release 3 business	US-04163 I shall be able to Settlement Performance Metrics TBD – after Accelerated Development by AMI Provider (will be specified by completion of Release 3 business	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-01501	US-01164	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Standard billing read retrieval	I shall be able to retrieve standard billing read request from CSS and provide response to that as per the expected format.	US-01164 I shall be able to retrieve standard billing read request from CSS and provide response to that as per the expected format.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-01502	US-01165	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	TOU/RTP Read retrieval	I shall be able to retrieve TOU/RTP read request from CSS and provide response to that as per the expected format.	US-01165 I shall be able to retrieve TOU/RTP read request from CSS and provide response to that as per the expected format.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-01503	US-01166	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	complex billing read retrieval	I shall be able to retrieve complex billing read request from CSS and provide response to that as per the expected format.	US-01166 I shall be able to retrieve complex billing read request from CSS and provide response to that as per the expected format.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-01504	US-01167	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Billing Supplemental read from CSS	I shall be able to receive read, which was used for billing but not supplied by MDMS (supplemental read) from CSS	US-01167 I shall be able to receive read, which was used for billing but not supplied by MDMS (supplemental read) from CSS	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-01505	US-01168	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	off-cycle special read retrieval	I shall be able to retrieve off-cycle special read request from CSS for AMI meters and provide response to that as per the expected format.	US-01168 I shall be able to retrieve off-cycle special read request from CSS for AMI meters and provide response to that as per the expected format.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-01506	US-01169	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	off-cycle supplier switch read retrieval	I shall be able to retrieve off-cycle supplier switch read request from CSS for AMI meters and provide response to that as per the expected format.	US-01169 I shall be able to retrieve off-cycle supplier switch read request from CSS for AMI meters and provide response to that as per the expected format.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-01507	US-01170	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	On-demand read receive request	I shall be able to receive on-demand read request from CSS for AMI meters. Head End system shall in turn be able to receive on-demand read request from MDMS and provide response to that. MDMS shall then be able to provide on-demand read response to CSS.	US-01170 I shall be able to receive on-demand read request from CSS for AMI meters. Head End system shall in turn be able to receive on-demand read request from MDMS and provide response to that. MDMS shall then be able to provide on-demand read response to CSS.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-01508	US-01171	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Read processing	Interval usage data receive request	I shall be able to receive and process the interval usage data request from CSS for EDI transactions.	US-01171 I shall be able to receive and process the interval usage data request from CSS for EDI transactions.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-01509	US-01172	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data provisioning	Meter read history transaction	I shall be able to send meter read history with interval data to CSS for EDI transactions (e.g. 867).	US-01172 I shall be able to send meter read history with interval data to CSS for EDI transactions (e.g. 867).	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-01510	US-01173	Metering - Meter Data Management	RIEMTR MDMS	Installation and Commissioning	Meter installation & removal	Meter Lifecycle	I shall be able to receive meter details from CSS upon completion of meter installation/removal/replacement.	US-01173 I shall be able to receive meter details from CSS upon completion of meter installation/removal/replacement.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-01511	US-01174	Metering - Meter Data Management	RIEMTR MDMS	PO to Inventory Management	Meter configuration	Meter configuration	I shall be able to receive meter configuration details from CSS	US-01174 I shall be able to receive meter configuration details from CSS	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-01512	US-01175	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Data collection	Read changes receipt	I shall be able to receive install/removal read changes from CSS	US-01175 I shall be able to receive install/removal read changes from CSS	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-01515	US-01176	Metering - Meter Data Management	RIEMTR MDMS	Meter command operations	Command request management	RCD request receive	I shall be able to receive RCD request from CSS for AMI meters and pass this request to Head End system. Once received the response from Head End system,I shall be able to pass this response to CSS	US-01176 I shall be able to receive RCD request from CSS for AMI meters and pass this request to Head End system. Once received the response from Head End system,I shall be able to pass this response to CSS	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06016	US-06177	Metering - Meter Data Management	RIEMTR MDMS	Service orders/Exception/ Customer services handling	Exception handling	Average AMI Head-End Events/Alarms retrival	I shall be able to retrieve Number of average AMI Head-End Events / Alarms per meter. Identify the meters giving more alarm than average threshold.	US-06177 I shall be able to retrieve Number of average AMI Head-End Events / Alarms per meter. Identify the meters giving more alarm than average threshold.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06023	US-06178	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, estimation & editing	Bill estimation from daily read	I shall be able to estimate first bill from the daily read which was not used for billing divided by the total amount of AMI Meters deployed from the previous month,	US-06178 I shall be able to estimate first bill from the daily read which was not used for billing divided by the total amount of AMI Meters deployed from the previous month,	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4

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REQ-06023	US-06179	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Analytics	Absence of daily read	I shall be able to provide the total amount of AMI Meter Accounts that do not have a daily Read within the billing window.	US-06179 I shall be able to provide the total amount of AMI Meter Accounts that do not have a daily Read within the billing window.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06031	US-06180	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Analytics	Absence of read in domestic & commerical meters	I shall be able to provide the total amount of all residential and commercial meters where RI has not received any readings during the billing window through yesterday.	US-06180 I shall be able to provide the total amount of all residential and commercial meters where RI has not received any readings during the billing window through yesterday.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06031	US-06181	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Analytics	Absence of read in domestic & commerical meters	I shall be able to provide the total amount of all residential and commercial meters where RI has not received any readings during the billing window (inclusive of yesterday)	US-06181 I shall be able to provide the total amount of all residential and commercial meters where RI has not received any readings during the billing window (inclusive of yesterday)	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06031	US-06182	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Audit Trails and Logs	Age of industrial & commerical meters	I shall be able to provide the age of all residential and commercial meters where RI has not received any readings during the billing window	US-06182 I shall be able to provide the age of all residential and commercial meters where RI has not received any readings during the billing window	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06032	US-06183	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	Unused billing reads for Residential and Commercial Meters	I shall be able to provide total amount of residential and commercial meters that are sending readings, but billing is not using the reads for billing purposes (unused reads- possible defective meters) for a given time period	US-06183 I shall be able to provide total amount of residential and commercial meters that are sending readings, but billing is not using the reads for billing purposes (unused reads- possible defective meters) for a given time period	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-06034	US-06184	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Performance metrics	Meter testing metrics- Failure count of communication modules	I shall be able to provide the failure count of the comms Module. # of failed comms modules returned for testing	US-06184 I shall be able to provide the failure count of the comms Module. # of failed comms modules returned for testing	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06035	US-06185	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Performance metrics	Meter testing metrics- Error code count	I shall be able to track the count of error codes that are not visible on the meter display returned for testing	US-06185 I shall be able to track the count of error codes that are not visible on the meter display returned for testing	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06043	US-06186	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	VEE expections count by age/history	I shall be able to provide the total count by age of MDMS VEE Exceptions (yesterday, prior to yesterday, 2 months, 3 months, 4 months)	US-06186 I shall be able to provide the total count by age of MDMS VEE Exceptions (yesterday, prior to yesterday, 2 months, 3 months, 4 months)	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-06046	US-06187	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	Count of forced estimates/editing	I shall be able to provide the total count of forced estimates/editing reads that are not currently used for billing by reason code, rate and revenue class.	US-06187 I shall be able to provide the total count of forced estimates/editing reads that are not currently used for billing by reason code, rate and revenue class.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-06046	US-06188	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Validation, Estimation & Editing	Count of manual estimates/editing	I shall be able to provide the total count of manual estimates/editing reads that are not currently used for billing by reason code, rate and revenue class.	US-06188 I shall be able to provide the total count of manual estimates/editing reads that are not currently used for billing by reason code, rate and revenue class.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-06050	US-06189	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Performance metrics	Interval Read Performance report	I shall be able to provide the percentage of intervals received for meters for the previous day.	US-06189 I shall be able to provide the percentage of intervals received for meters for the previous day.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06051	US-06190	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Bill group-Register read percent & count	The percent and count of meters in the bill group that reported at least one register read during the billing window reported by bill group.	US-06190 The percent and count of meters in the bill group that reported at least one register read during the billing window reported by bill group.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06052	US-06191	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Performance metrics	Register read performance	Register Reading Performance for both the percent and count.	US-06191 Register Reading Performance for both the percent and count.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06055	US-06192	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Performance metrics	Application availablity	I shall be able to provide application availability/uptime/performance metrices for MDMS.	US-06192 I shall be able to provide application availability/uptime/performance metrices for MDMS.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06059	US-06193	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Suspected tamper/theft reporting	I shall be able to report the number of installed AMI meters with suspected tamper or theft.	US-06193 I shall be able to report the number of installed AMI meters with suspected tamper or theft.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06059	US-06194	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Meter maintenence issue investigation	I shall be able to use analytics to find suspected theft on installed AMI meters and compare to meter testing data to filter out meter maintenance issues	US-06194 I shall be able to use analytics to find suspected theft on installed AMI meters and compare to meter testing data to filter out meter maintenance issues	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6

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REQ-06061	US-06195	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Usage analysis report	I shall be able to provide usage analysis report	US-06195 I shall be able to provide usage analysis report	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06061	US-06196	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Customer load pattern analysis report	I shall be able to provide customer load pattern analysis report	US-06196 I shall be able to provide customer load pattern analysis report	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06061	US-06197	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Customer peak analysis report	I shall be able to provide customer peak analysis report	US-06197 I shall be able to provide customer peak analysis report	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06061	US-06198	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Identify customers with distributed generation	I shall be able to identify customers with distributed generation	US-06198 I shall be able to identify customers with distributed generation	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06067	US-06199	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Mulitpliers mismatch	I shall be able to Identify meters with mismatch of multipliers between MDMS and CSS	US-06199 I shall be able to Identify meters with mismatch of multipliers between MDMS and CSS	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06068	US-06200	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Validation, Estimation & Editing	Abnormal gas spike detection	I shall be able to detect abnormal gas spikes	US-06200 I shall be able to detect abnormal gas spikes	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-06069	US-06201	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Identify potential change	I shall be able to Identify potential change in energy use after a meter change out	US-06201 I shall be able to Identify potential change in energy use after a meter change out	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06070	US-06202	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Identify abnormal use patterns	I shall be able to Identify abnormal customer use patterns	US-06202 I shall be able to Identify abnormal customer use patterns	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06070	US-06203	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Analyze abnormal use patterns	I shall be able to analyze abnormal customer use patterns	US-06203 I shall be able to analyze abnormal customer use patterns	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06071	US-06204	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Estimation using interval meter read	I shall be able to develop residential end use energy estimates using interval meter data	US-06204 I shall be able to develop residential end use energy estimates using interval meter data	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06076	US-06205	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Annual voltage profile	I shall be able to develop annual voltage profiles by customer	US-06205 I shall be able to develop annual voltage profiles by customer	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06078	US-06206	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Nil consumption of active gas meters	I shall be able to Identify active gas meters showing no consumption over a specified period of time	US-06206 I shall be able to Identify active gas meters showing no consumption over a specified period of time	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06079	US-06207	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Transformer loading calculation	I shall be able to calculate transformer loading using customer interval meter data. Insight on impact of additional load on existing transformer	US-06207 I shall be able to calculate transformer loading using customer interval meter data. Insight on impact of additional load on existing transformer	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06080	US-06208	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	Identifying service points	I shall be able to Identify service points where electric meter has been removed but gas meter is still active	US-06208 I shall be able to Identify service points where electric meter has been removed but gas meter is still active	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06083	US-06209	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	High energy customers identification	I shall be able to identify high energy customers during summer and winter peaks for demand response programs	US-06209 I shall be able to identify high energy customers during summer and winter peaks for demand response programs	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06084	US-06210	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Revenue protection	System load curtailment prediction	I shall be able to predict system load curtailment from demand response programs using real time meter data	US-06210 I shall be able to predict system load curtailment from demand response programs using real time meter data	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-04107	US-04211	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Analytics	Duplicate hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	US-04211 I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04107	US-04212	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Analytics	Missing hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	US-04212 I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04107	US-04213	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Analytics	Internal & user interface Daylight savings	I shall be able to have the ability to properly handle daylight savings including internal and user interface representation	US-04213 I shall be able to have the ability to properly handle daylight savings including internal and user interface representation	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-04107	US-04214	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Data Analytics	Interface representation daylight savings	I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	US-04214 I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06086	US-06215	Metering - Meter Data Management	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement aggregation	Load disaggregation support	I shall be able to support load disaggregation	US-06215 I shall be able to support load disaggregation	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-06089	US-06216	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Outage collection, validation, management & modification	User configuration- Disable/enable message to OMS	I shall be able to enable user configuration to disable and enable the messages to OMS at any time.	US-06216 I shall be able to enable user configuration to disable and enable the messages to OMS at any time.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06089	US-06217	Metering - Meter Data Management	RIEMTR MDMS	Event and alarm management	Event & alarm management	Meter power status collection	I shall be able to receive Power Up/Down alerts from AMI HE (AMI meters).	US-06217 I shall be able to receive Power Up/Down alerts from AMI HE (AMI meters).	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06089	US-06218	Metering - Meter Data Management	RIEMTR MDMS	Event and alarm management	Event & alarm management	False power status alarms elimination	I shall be able to eliminate false Power up/down alarms and insure at least 2 customers under a transformer have a power down.	US-06218 I shall be able to eliminate false Power up/down alarms and insure at least 2 customers under a transformer have a power down.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-06089	US-06219	Metering - Meter Data Management	RIEMTR MDMS	Event and alarm management	Event & alarm management	Power status alarms reporting	I shall be able to report the power downs and outage information to OMS.	US-06219 I shall be able to report the power downs and outage information to OMS.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-02007	US-02220	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing for MV90, AMR & AMI gas	I shall be able to receive the request for meter asset testing from Asset & Inventory Managament System for MV90, AMR and AMI meters (Gas)	US-02220 I shall be able to receive the request for meter asset testing from Asset & Inventory Managament System for MV90, AMR and AMI meters (Gas)	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02007	US-02221	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing for MV90, AMR & AMI gas	I shall be able to test meters for New Meters, Compliance,CMO.	US-02221 I shall be able to test meters for New Meters, Compliance,CMO.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02008	US-02222	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing for MV90, AMR & AMI gas	I shall be able to send the testing result after testing to asset & inventory management system	US-02222 I shall be able to send the testing result after testing to asset & inventory management system	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-02008	US-02223	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Test results recodring & sharing for MV90, AMR & AMI gas	I shall be able to test the metering assets as per PUC test guidelines	US-02223 I shall be able to test the metering assets as per PUC test guidelines	PI1	8/29/22	10/21/22	6. Meter Test	1

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REQ-02027	US-02224	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	ERT configuration for MV90, AMR & AMI gas	I shall be able to associate / disassociate ERTs with meters during testing	US-02224 I shall be able to associate / disassociate ERTs with meters during testing	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02008	US-02225	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to perform the acceptance testing of Gas metering assets	US-02225 I shall be able to perform the acceptance testing of Gas metering assets	PI1	8/29/22	10/21/22	6. Meter Test	1
REQ-02014	US-02226	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to perform register validation test as part of functional testing	US-02226 I shall be able to perform register validation test as part of functional testing	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02014	US-02227	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to perform reading validation test as part of functional testing	US-02227 I shall be able to perform reading validation test as part of functional testing	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02014	US-02228	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to perform two-way communication test as part of functional testing	US-02228 I shall be able to perform two-way communication test as part of functional testing	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02014	US-02229	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to perform Accuracy test, leakage test, as part of functional testing	US-02229 I shall be able to perform Accuracy test, leakage test, as part of functional testing	PI1	8/29/22	10/21/22	6. Meter Test	1
REQ-02008	US-02230	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	ERT programming for MV90, AMR & AMI gas	I shall be able to perform ERT programming and testing.	US-02230 I shall be able to perform ERT programming and testing.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02014	US-02231	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to perform business event validation test as part of functional testing	US-02231 I shall be able to perform business event validation test as part of functional testing	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02014	US-02232	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to perform physical event validation test as part of functional testing	US-02232 I shall be able to perform physical event validation test as part of functional testing	PI1	8/29/22	10/21/22	6. Meter Test	1
REQ-02013	US-02233	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI gas	I shall have the a ability to run a pre-defined Dynamic Sequence of tests on a meter from a connected test board.	US-02233 I shall have the a ability to run a pre-defined Dynamic Sequence of tests on a meter from a connected test board.	PI1	8/29/22	10/21/22	6. Meter Test	1
REQ-02016	US-02234	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI gas	I shall be able to change the configuration of testing sequence based on which testing will be performed.	US-02234 I shall be able to change the configuration of testing sequence based on which testing will be performed.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02017	US-02235	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI gas	I shall be able to track all unique versions of configured test sequences.	US-02235 I shall be able to track all unique versions of configured test sequences.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02018	US-02236	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall have the ability to run pre-programmed meter tests automatically	US-02236 I shall have the ability to run pre-programmed meter tests automatically	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02020	US-02237	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Test results validation for MV90, AMR & AMI gas	I shall be able to measure the test result test and compare the test result to the test program's pass criteria.	US-02237 I shall be able to measure the test result test and compare the test result to the test program's pass criteria.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02021	US-02238	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Test results presentment for MV90, AMR & AMI gas	I shall be able to view/review the test results based on the input criteria.	US-02238 I shall be able to view/review the test results based on the input criteria.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02026	US-02239	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Test results presentment for MV90, AMR & AMI gas	I shall be able to get a summary of test results on Testing Dashboard upon completion of the testing of the sample group.	US-02239 I shall be able to get a summary of test results on Testing Dashboard upon completion of the testing of the sample group.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02027	US-02240	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall have the ability to perform First Article Testing activities for all forms and classes of all type of meters, Diaphragm meters, Ultrasonic meters,ERTs.	US-02240 I shall have the ability to perform First Article Testing activities for all forms and classes of all type of meters, Diaphragm meters, Ultrasonic meters,ERTs.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02028	US-02241	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall have the ability to run metrology accuracy tests on a First Article Meter.	US-02241 I shall have the ability to run metrology accuracy tests on a First Article Meter.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02030	US-02242	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall have the ability to verify that the correct firmware and software is installed on a First Article Meter (AMI)	US-02242 I shall have the ability to verify that the correct firmware and software is installed on a First Article Meter (AMI)	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-02031	US-02243	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall have the ability to test communication components of a First Article Meter that are available through the End Point Tests Manager software integration.	US-02243 I shall have the ability to test communication components of a First Article Meter that are available through the End Point Tests Manager software integration.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02032	US-02244	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall have the ability to test events of a First Article Meter that are available through the End Point Tests Manager software integration.	US-02244 I shall have the ability to test events of a First Article Meter that are available through the End Point Tests Manager software integration.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02036	US-02245	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Configure Meter Testing for MV90, AMR & AMI gas	I shall be able to interface with meter shop test stations	US-02245 I shall be able to interface with meter shop test stations	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-06026	US-06246	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing for MV90, AMR & AMI gas	I shall be able to identify removed meters that have an As Found accuracy greater than the As Left data, the source data will be from Infor.	US-06246 I shall be able to identify removed meters that have an As Found accuracy greater than the As Left data, the source data will be from Infor.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-06058	US-06247	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Returned AMI meter testing	I shall be able to perform testing Of AMI Meters Returned to the Meter Shop For Testing And Return To Inventory	US-06247 I shall be able to perform testing Of AMI Meters Returned to the Meter Shop For Testing And Return To Inventory	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-02003	US-02248	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall be able to receive the serialized meters and network comms devices in the AMI Head End system form the asset and inventory system	US-02248 I shall be able to receive the serialized meters and network comms devices in the AMI Head End system form the asset and inventory system	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-02006	US-02249	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall be able to receive the serialized meters and network comms devices in the MDMS system form the asset and inventory system	US-02249 I shall be able to receive the serialized meters and network comms devices in the MDMS system form the asset and inventory system	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02012	US-02250	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall have the ability to test both accuracy (metrology) and functional tests on a meter in the meter testing system.	US-02250 I shall have the ability to test both accuracy (metrology) and functional tests on a meter in the meter testing system.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02040	US-02251	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall have the ability to carry out Demand testing for Electric Meters in the Meter testing systems	US-02251 I shall have the ability to carry out Demand testing for Electric Meters in the Meter testing systems	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02022	US-02252	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing	I shall be able to place the meter in a "Passed" meter crate when the meter passes the test program.	US-02252 I shall be able to place the meter in a "Passed" meter crate when the meter passes the test program.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02023	US-02253	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing	I shall be able to shall place the CT/PT in a "Passed" status when it pass the test .	US-02253 I shall be able to shall place the CT/PT in a "Passed" status when it pass the test .	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02024	US-02254	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing	I shall be able to place the meter in a "Failed" meter crate when the meter fails the test program for either an accuracy test or a functional test that has been pre-configured to cause the meter to fail the overall testing criteria.	US-02254 I shall be able to place the meter in a "Failed" meter crate when the meter fails the test program for either an accuracy test or a functional test that has been pre-configured to cause the meter to fail the overall testing criteria.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02025	US-02255	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing	I shall be able to place the CT/PT in a "Failed" status when the CT/PT fails the test for either an accuracy test or a functional test that has been pre-configured to cause the CT/PT to fail the overall testing criteria.	US-02255 I shall be able to place the CT/PT in a "Failed" status when the CT/PT fails the test for either an accuracy test or a functional test that has been pre-configured to cause the CT/PT to fail the overall testing criteria.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02029	US-02256	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing	I shall have the ability to run functional tests on a First Article Meter that are available through the End Point Tests Manager software integration.	US-02256 I shall have the ability to run functional tests on a First Article Meter that are available through the End Point Tests Manager software integration.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-07006	US-07257	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR electric-Drive by read collection	I shall be able to collect data from AMR electric Drive-by	US-07257 I shall be able to collect data from AMR electric Drive-by	PI2	10/24/22	1/6/23	1. AMR	2
REQ-02033	US-02258	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall be to collect and store all meter asset information with technical configuration in AMR and AMI data collection systems received from asset & inventory system	US-02258 I shall be to collect and store all meter asset information with technical configuration in AMR and AMI data collection systems received from asset & inventory system	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-07006	US-07259	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR electric-Walk by read collection	I shall be able to collect data from AMR electric walk-by	US-07259 I shall be able to collect data from AMR electric walk-by	PI2	10/24/22	1/6/23	1. AMR	2
REQ-02034	US-02260	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall be able to collect and store all meter asset information in MDMS with technical configuration received from asset & inventory system and incorporate business configuration received from CSS to the meter asset.	US-02260 I shall be able to collect and store all meter asset information in MDMS with technical configuration received from asset & inventory system and incorporate business configuration received from CSS to the meter	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02035	US-02261	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall be able to collect and store operational status and location details in Asset & inventory system received from AMI head-end system	US-02261 I shall be able to collect and store operational status and location details in Asset & inventory system received from AMI head-end system	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-07009	US-07262	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR electric-Optical probe read collection	I shall be able to collect data from AMR electric -Optical probe	US-07262 I shall be able to collect data from AMR electric -Optical probe	PI2	10/24/22	1/6/23	1. AMR	2

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REQ-02050	US-02263	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Execute Meter Testing	I shall be able to include WECO Test Boards for Electric Meters Make X Model X	US-02263 I shall be able to include WECO Test Boards for Electric Meters Make X Model X	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-07006	US-07264	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR gas-Drive by read collection	I shall be able to collect data from AMR gas Drive-by	US-07264 I shall be able to collect data from AMR gas Drive-by	PI2	10/24/22	1/6/23	1. AMR	2
REQ-02051	US-02265	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall be able to include scanners, special connectors, and windows drivers, all compatible with windows 10 OS	US-02265 I shall be able to include scanners, special connectors, and windows drivers, all compatible with windows 10 OS	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-07006	US-07266	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR gas-Walk by read collection	I shall be able to collect data from AMR gas walk-by	US-07266 I shall be able to collect data from AMR gas walk-by	PI2	10/24/22	1/6/23	1. AMR	2
REQ-04054	US-04267	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter Testing	Initiate meter testing	I shall be able to receive, store, and process connect/disconnect requests in MDMS from the CSS for one meter and/or a batch of meters.	US-04267 I shall be able to receive, store, and process connect/disconnect requests in MDMS from the CSS for one meter and/or a batch of meters.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-06019	US-06268	Asset & Inventory	RIEMTR Meter Testing	Business analytics and reporting	Meter Testing	Report defective AMI meters	I shall be able to report on the percentage of installed AMI meters that have been identified as having defects for module or meteorology of meter- will need to replace with another AMI meter or reprogrammed.	US-06268 I shall be able to report on the percentage of installed AMI meters that have been identified as having defects for module or meteorology of meter- will need to replace with another AMI meter or reprogrammed.	PI4	4/3/23	6/23/23	3/4. AMI CC	4
REQ-07009	US-07269	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR gas-Optical probe read collection	I shall be able to collect data from AMR gas -Optical probe	US-07269 I shall be able to collect data from AMR gas -Optical probe	PI2	10/24/22	1/6/23	1. AMR	2
REQ-06021	US-06270	Asset & Inventory	RIEMTR Meter Testing	Business analytics and reporting	Meter Testing	Report test cleared AMI meters	I shall be able to report on the number of meters that have cleared both meter shop and PUC testing, only applicable for AMI meters.	US-06270 I shall be able to report on the number of meters that have cleared both meter shop and PUC testing, only applicable for AMI meters.	PI4	4/3/23	6/23/23	6. Meter Test	4
REQ-05006	US-05271	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR Electric Inetrval read collection	I shall be able to collect data from AMR Interval MV90 electric meters	US-05271 I shall be able to collect data from AMR Interval MV90 electric meters	PI2	10/24/22	1/6/23	1. AMR	2
REQ-06030	US-06272	Asset & Inventory	RIEMTR Meter Testing	Business analytics and reporting	Meter Testing	Report available AMI meters	I shall be able to report on the total amount of available meters (tested and ready for installation) in inventory, the source data will be from Infor.	US-06272 I shall be able to report on the total amount of available meters (tested and ready for installation) in inventory, the source data will be from Infor.	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-15010	US-15273	Asset & Inventory	RIEMTR Meter Testing	Installation and Commissioning	Meter installation & removal	Initiate meter installation	I shall be able to perform installation of MV-90 and Drive-by meters for both gas and electricity	US-15273 I shall be able to perform installation of MV-90 and Drive-by meters for both gas and electricity	PI3	1/9/23	3/31/23	2. MV90	3
REQ-02010	US-02274	Asset & Inventory	RIEMTR Meter Testing	Installation and Commissioning	Meter installation & removal	Initiate meter installation	I shall be able to process installation request from both customer and utility operations for the faulty meters as part of CMO	US-02274 I shall be able to process installation request from both customer and utility operations for the faulty meters as part of CMO	PI3	1/9/23	3/31/23	1. AMR	3
REQ-05006	US-05275	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR Electric Inetrval read collection	I shall be able to collect data from AMR Interval MV90 Gas meters	US-05275 I shall be able to collect data from AMR Interval MV90 Gas meters	PI2	10/24/22	1/6/23	1. AMR	2
REQ-02010	US-02276	Asset & Inventory	RIEMTR Meter Testing	Installation and Commissioning	Meter installation & removal	Initiate meter installation	I shall be able to process installation request as a part of new connection	US-02276 I shall be able to process installation request as a part of new connection	PI3	1/9/23	3/31/23	1. AMR	3
REQ-03001	US-03277	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	AMI electric-Read data collection	I shall be able to collect data from AMI electric	US-03277 I shall be able to collect data from AMI electric	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-02003	US-02278	Asset & Inventory	RIEMTR Meter Testing	Installation and Commissioning	Meter installation & removal	Initiate meter installation	I shall be able to initiate installation request as a part of compliance process	US-02278 I shall be able to initiate installation request as a part of compliance process	PI3	1/9/23	3/31/23	1. AMR	3
REQ-03001	US-03279	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	AMI gas-Read data collection	I shall be able to collect data from AMI gas	US-03279 I shall be able to collect data from AMI gas	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-02003	US-02280	Asset & Inventory	RIEMTR Meter Testing	Installation and Commissioning	Meter installation & removal	Initiate meter installation	I shall be able to initiate installation request as a part of deployment planning (AMI only)	US-02280 I shall be able to initiate installation request as a part of deployment planning (AMI only)	PI2	10/24/22	1/6/23	3/4. AMI CC	2
REQ-07010	US-07281	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Docking Connection	I shall be able to have the ability to connect bi-directional mode with AMR data collection system via wired network to download route information and upload meter reads, event data.	US-07281 I shall be able to have the ability to connect bi-directional mode with AMR data collection system via wired network to download route information and upload meter reads, event data.	PI2	10/24/22	1/6/23	1. AMR	2
REQ-02010	US-02282	Asset & Inventory	RIEMTR Meter Testing	Installation and Commissioning	Meter installation & removal	Record meter installation	I shall be able to check the meter/register details update along with the installation read in MDMS upon completion of meter installation	US-02282 I shall be able to check the meter/register details update along with the installation read in MDMS upon completion of meter installation	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-07010	US-07283	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Wireless Mode Connection	I shall be able to have the ability to connect bi-directional mode with AMR data collection system via wireless network to	US-07283 I shall be able to have the ability to connect bi-directional mode with AMR data collection system via	PI2	10/24/22	1/6/23	1. AMR	2
REQ-02009	US-02284	Asset & Inventory	RIEMTR Meter Testing	Installation and	Meter installation & removal	Record meter installation	I shall be able to check the meter/register details update in AMR HES upon completion of meter installation	US-02284 I shall be able to check the meter/register details update in AMR HES upon completion of meter	PI3	1/9/23	3/31/23	1. AMR	3
REQ-07013	US-07285	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Read data format collection	I shall be capable of collecting data in respective proprietary (PP4, HDL/HUL, etc.) format from various data collection handheld / mobile devices with different manufacturers	US-07285 I shall be capable of collecting data in respective proprietary (PP4, HDL/HUL, etc.) format from various data collection handheld / mobile devices with different manufacturers	PI1	8/29/22	10/21/22	1. AMR	1
REQ-15012	US-15286	Asset & Inventory	RIEMTR Meter Testing	Installation and Commissioning	Meter installation & removal	Record meter removal	As part of CMO, I shall be able to check the removal read (last read) in MDMS upon completion of old meter removal	US-15286 As part of CMO, I shall be able to check the removal read (last read) in MDMS upon completion of old meter removal	PI3	1/9/23	3/31/23	1. AMR	3
REQ-07013	US-07287	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Read data conversion	I shall be able to process data collected in respective proprietary and convert into a common format (i.e. CSV, XML, etc.).	US-07287 I shall be able to process data collected in respective proprietary and convert into a common format (i.e. CSV, XML, etc.).	PI1	8/29/22	10/21/22	1. AMR	1
REQ-07014	US-07288	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Data acquistion enablement	I shall be able to enable to collect data from different AMR configuration schemes (meter configuration, business configuration)	US-07288 I shall be able to enable to collect data from different AMR configuration schemes (meter configuration, business configuration)	PI1	8/29/22	10/21/22	1. AMR	1
REQ-07015	US-07289	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Scheduled data collection	I shall be able to have the ability to collect data in scheduled batch mode	US-07289 I shall be able to have the ability to collect data in scheduled batch mode	PI1	8/29/22	10/21/22	1. AMR	1
REQ-07015	US-07290	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	On demand data collection	I shall be able to have the ability to collect data in on-demand mode.	US-07290 I shall be able to have the ability to collect data in on-demand mode.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03001	US-03291	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	AMI network	Network devices data information	I shall be able to support collection, storage, and reporting of AMI network devices in AMI Head End.	US-03291 I shall be able to support collection, storage, and reporting of AMI network devices in AMI Head End.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07016	US-07292	Metering AMR	RIEMTR AMR	Meter command operations	Meter configuration	Individual read configuration	I shall be able to allow to configure reading cycles for individual meters . The data collection shall be monthly basis.	US-07292 I shall be able to allow to configure reading cycles for individual meters . The data collection shall be monthly basis.	PI1	8/29/22	10/21/22	1. AMR	1
REQ-03093	US-03293	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Encryption/Management	Data Security	I shall be able to encrypt all communication between AMI HE and backhaul devices (collectors, gateways) using certificates using standards that are industry recognized as secure.	US-03293 I shall be able to encrypt all communication between AMI HE and backhaul devices (collectors, gateways) using certificates using standards that are industry recognized as secure.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07016	US-07294	Metering AMR	RIEMTR AMR	Meter command operations	Meter configuration	Group read configuration	I shall be able to allow to configure reading cycles for groups of meters. The data collection shall be monthly basis.	US-07294 I shall be able to allow to configure reading cycles for groups of meters. The data collection shall be monthly basis.	PI1	8/29/22	10/21/22	1. AMR	1
REQ-03094	US-03295	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Encryption/Management	Data Security	I shall be able to encrypt all communication between the AMI HE and all Field Devices (DERs, Meters, Gateways, Collectors, Routers, DA Device, Methane Detectors, Street Lights) using standards that are industry recognized as	US-03295 I shall be able to encrypt all communication between the AMI HE and all Field Devices (DERs, Meters, Gateways, Collectors, Routers, DA Device, Methane Detectors, Street Lights) using standards that are industry	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07026	US-07296	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Data collection	I shall be able to synchronize the date and time of all meters to a common fixed reference.	US-07296 I shall be able to synchronize the date and time of all meters to a common fixed reference.	PI1	8/29/22	10/21/22	1. AMR	1
REQ-03002	US-03297	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Electric AMI meter data collection	I shall be able to support scheduled, on-demand, and endpoint initiated data collection for electric meters	US-03297 I shall be able to support scheduled, on-demand, and endpoint initiated data collection for electric meters	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07029	US-07298	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Route request information	I shall be able to send scheduled read request route file from CSS to MDMS	US-07298 I shall be able to send scheduled read request route file from CSS to MDMS	PI2	10/24/22	1/6/23	1. AMR	2
REQ-04049	US-04299	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Gas AMI meter data collection	I shall be able to support scheduled, on-demand, and endpoint initiated data collection for gas meters	US-04299 I shall be able to support scheduled, on-demand, and endpoint initiated data collection for gas meters	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-04049	US-04300	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Route request information receive & validate	I shall be able to receive and validate scheduled read request file in MDMS	US-04300 I shall be able to receive and validate scheduled read request file in MDMS	PI2	10/24/22	1/6/23	1. AMR	2
REQ-07029	US-07301	Metering AMI	RIEMTR AMI HE	PO to Inventory Management	Meter configuration	Time interval Configuration	I shall be able to support a configurable time (e.g. 60, 15, 5 minute) interval for all Meter data. i.e. can be specified on a individual meter and data basis.	US-07301 I shall be able to support a configurable time (e.g. 60, 15, 5 minute) interval for all Meter data. i.e. can be specified on a individual meter and data basis.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07029	US-07302	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Route request information receive & validate	I shall be able to receive and validate scheduled read request file along with Routes in AMR HES	US-07302 I shall be able to receive and validate scheduled read request file along with Routes in AMR HES	PI2	10/24/22	1/6/23	1. AMR	2
REQ-03004	US-03303	Metering AMI	RIEMTR AMI HE	Read to bill	Read data format	New data versioning	I shall be able to receive any newly available data from an AMI Network and store it with proper versioning.	US-03303 I shall be able to receive any newly available data from an AMI Network and store it with proper versioning.	PI1	8/29/22	10/21/22	3/4. AMI CC	1
REQ-07029	US-07304	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR electric-Register & interval read collection	I shall be able to collect register & interval reads from AMR Electric meters	US-07304 I shall be able to collect register & interval reads from AMR Electric meters	PI2	10/24/22	1/6/23	1. AMR	2
REQ-03005	US-03305	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Historical data retrieval	I shall be able to have the capability to request all historical data for which the AMI equipment is configured to collect.	US-03305 I shall be able to have the capability to request all historical data for which the AMI equipment is configured to collect.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07029	US-07306	Metering AMR	RIEMTR AMR	Read to bill	Data collection	AMR gas-Register & interval read collection	I shall be able to collect register & interval reads from AMR Gas meters	US-07306 I shall be able to collect register & interval reads from AMR Gas meters	PI2	10/24/22	1/6/23	1. AMR	2
REQ-03006	US-03307	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Missing reads/data record	I shall be able to have the capability to record when i cannot receive a scheduled or requested read within a configurable amount of time, including Meter #, and Meter failure codes (including communication errors).	US-03307 I shall be able to have the capability to record when i cannot receive a scheduled or requested read within a configurable amount of time, including Meter #, and Meter failure codes (including communication errors).	PI5	6/26/23	9/1/23	3/4. AMI CC	5

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REQ-07028	US-07308	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Consumption data processing	I shall be able to send consumption data to MDMS for further processing	US-07308 I shall be able to send consumption data to MDMS for further processing	PI1	8/29/22	10/21/22	1. AMR	1
REQ-07001	US-07309	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Communication Infrastructure	I shall be able to collect the reads using Mobile collector	US-07309 I shall be able to collect the reads using Mobile collector	PI1	8/29/22	10/21/22	1. AMR	1
REQ-07001	US-07310	Metering AMR	RIEMTR AMR	Read to bill	Data collection	Communication Infrastructure	I shall be able to collect the reads using Handheld devices	US-07310 I shall be able to collect the reads using Handheld devices	PI1	8/29/22	10/21/22	1. AMR	1
REQ-03007	US-03311	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Missing reads/data request	I shall be able to have the ability to request missing data from the Meter at a configurable frequency throughout the day.	US-03311 I shall be able to have the ability to request missing data from the Meter at a configurable frequency throughout the day.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-07028	US-07312	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Read data processing	I shall be able to send read data to MDMS for further processing	US-07312 I shall be able to send read data to MDMS for further processing	PI1	8/29/22	10/21/22	1. AMR	1
REQ-07017	US-07313	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Data read conversion	I shall be able to have the ability to apply conversion factors dynamically to raw data if applicable in order to enable other systems to consume the data.	US-07313 I shall be able to have the ability to apply conversion factors dynamically to raw data if applicable in order to enable other systems to consume the data.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07017	US-07314	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Read & consumption data storage	I shall be able to receive & store read and consumption data in MDMS	US-07314 I shall be able to receive & store read and consumption data in MDMS	PI1	8/29/22	10/21/22	1. AMR	1
REQ-07021	US-07315	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Sending incremental extract files	I shall be able to have the ability to send incremental extract files containing meter data to MDMS at a configurable frequency.	US-07315 I shall be able to have the ability to send incremental extract files containing meter data to MDMS at a configurable frequency.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-07021	US-07316	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Validation management	I shall be able to perform technical validation for meter read with respect to format, data type and data chunk size and invalid dataset	US-07316 I shall be able to perform technical validation for meter read with respect to format, data type and data chunk size and invalid dataset	PI1	8/29/22	10/21/22	1. AMR	1
REQ-03010	US-03317	Metering AMI	RIEMTR AMI HE	Read to bill	Read processing	Meter data communication	I shall be able to have the ability to provide near real-time transfer of Meter data to MDMS, Outage Management Systems, ADMS, and possibly CSS Green Button	US-03317 I shall be able to have the ability to provide near real-time transfer of Meter data to MDMS, Outage Management Systems, ADMS, and possibly CSS Green Button	PI4	4/3/23	6/23/23	3/4. AMI CC	4
REQ-07021	US-0318	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Business validation	I shall be able to perform business validation like missing reads	US-0318 I shall be able to perform business validation like missing reads	PI2	10/24/22	1/6/23	1. AMR	2
REQ-05011	US-05319	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Communication support	I shall be able to support automated/manual bidirectional communication with meter for on-demand read, on-demand ping, remote connect/disconnect, etc. In addition to being done manually, this capablity shall be use by	US-05319 I shall be able to support automated/manual bidirectional communication with meter for on-demand read, on-demand ping, remote connect/disconnect, etc. In addition to being done manually, this capablity shall be	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-05011	US-05320	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Editing checks	I shall be able to check if editing is required on the read data	US-05320 I shall be able to check if editing is required on the read data	PI2	10/24/22	1/6/23	1. AMR	2
REQ-06043	US-06321	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Commands execution	I shall be able to provide a user interface to enable the execution of remote commands to AMI Equipment (router, data collector)	US-06321 I shall be able to provide a user interface to enable the execution of remote commands to AMI Equipment (router, data collector)	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-06043	US-06322	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Read exceptions management	I shall be able to manage read exceptions on the read data	US-06322 I shall be able to manage read exceptions on the read data	PI2	10/24/22	1/6/23	1. AMR	2
REQ-03013	US-03323	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	On demand request execution	I shall be able to have the ability to receive, process, and respond to on demand requests for data from AMI Equipment from other Owner systems (MDMS, OMS, ADMS, etc.) for individual devices or groups of devices.	US-03323 I shall be able to have the ability to receive, process, and respond to on demand requests for data from AMI Equipment from other Owner systems (MDMS, OMS, ADMS, etc.) for individual devices or groups of devices.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-04011	US-0324	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Business validation	I shall be able to perform business validation on the bill determinants and generate the bill	US-0324 I shall be able to perform business validation on the bill determinants and generate the bill	PI2	10/24/22	1/6/23	1. AMR	2
REQ-04011	US-04325	Metering AMI	RIEMTR AMI HE	Read to bill	Data provisioning	Meter data communication	I shall be able to have the ability to send requested meter data to other Owner systems (e.g., MDMS, ADMS,OMS)	US-04325 I shall be able to have the ability to send requested meter data to other Owner systems (e.g., MDMS, ADMS,OMS)	PI4	4/3/23	6/23/23	3/4. AMI CC	4
REQ-04011	US-04326	Metering AMR	RIEMTR AMR	Read to bill	Read processing	Bill determinants generation	I shall be able to generate bill determinants and send to CSS	US-04326 I shall be able to generate bill determinants and send to CSS	PI3	1/9/23	3/31/23	1. AMR	3
REQ-04088	US-04327	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Ping request communication	I shall be able to develop capability to ensure the Head End has the ability to send the result of a ping request (success or time out) to other Owner systems (e.g., OMS, ADMS) in coordination with the System Integrator.	US-04327 I shall be able to develop capability to ensure the Head End has the ability to send the result of a ping request (success or time out) to other Owner systems (e.g., OMS, ADMS) in coordination with the System Integrator.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-04088	US-04328	Metering AMR	RIEMTR AMR	Read to bill	Data provisioning	Usage data provisioning	I shall be able to send usage data for downstream processes e.g. Settlement, channels etc	US-04328 I shall be able to send usage data for downstream processes e.g. Settlement, channels etc	PI3	1/9/23	3/31/23	1. AMR	3
REQ-03016	US-03329	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Ping receive request	I shall be able to have the ability to receive ping requests for an individual AMI Equipment or group of AMI Equipment from other Owner systems (e.g., OMS, ADMS).	US-03329 I shall be able to have the ability to receive ping requests for an individual AMI Equipment or group of AMI Equipment from other Owner systems (e.g., OMS, ADMS).	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03017	US-03330	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	On demand read request	I shall be able to request a register read and a demand read from the Meter just prior to a demand reset.	US-03330 I shall be able to request a register read and a demand read from the Meter just prior to a demand reset.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03023	US-03331	Metering AMI	RIEMTR AMI HE	Service orders/Exception/ Customer services handling	Exception handling	Exception handling-Notifications	I shall be able to have the ability to trigger exception handling processes, including notifying appropriate systems and triggering service orders. Ex. AMI head end shall have the ability to trigger a service order to CSS/Work	US-03331 I shall be able to have the ability to trigger exception handling processes, including notifying appropriate systems and triggering service orders. Ex. AMI head end shall have the ability to trigger a service order to CSS/Work	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03025	US-03332	Metering AMI	RIEMTR AMI HE	Meter command operations	Meter configuration	Remote programming	I shall be able to support remote programming/configuration for an individual AMI Equipment device or group of AMI Equipment with an effective date/time (i.e., either immediate or future time).	US-03332 I shall be able to support remote programming/configuration for an individual AMI Equipment device or group of AMI Equipment with an effective date/time (i.e., either immediate or future time).	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03026	US-03333	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Connect/Disconnect command receive request	I shall be able to have the ability to receive remote connect/disconnect requests from other Owner systems (e.g., MDMS, CSS)	US-03333 I shall be able to have the ability to receive remote connect/disconnect requests from other Owner systems (e.g., MDMS, CSS)	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03026	US-03334	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Meter command acknowledgment	I shall be able to have the ability to send an acknowledgment to the originating system that the remote connect/disconnect request was received.	US-03334 I shall be able to have the ability to send an acknowledgment to the originating system that the remote connect/disconnect request was received.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03027	US-03335	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Meter read request	I shall be able to have the ability to request a meter reading prior to initiating a remote connect/disconnect request (including switch status).	US-03335 I shall be able to have the ability to request a meter reading prior to initiating a remote connect/disconnect request (including switch status).	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03027	US-03336	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Meter read request	I shall be able to have the ability to request a meter reading after initiating a remote connect/disconnect request (including switch status).	US-03336 I shall be able to have the ability to request a meter reading after initiating a remote connect/disconnect request (including switch status).	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03028	US-03337	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Meter connect response transaction	I shall be able to receive a response from the Meter following the success or failure of each part of a connect transaction.	US-03337 I shall be able to receive a response from the Meter following the success or failure of each part of a connect transaction.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03028	US-03338	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Meter disconnect response transaction	I shall be able to receive a response from the Meter following the success or failure of each part of a disconnect transaction.	US-03338 I shall be able to receive a response from the Meter following the success or failure of each part of a disconnect transaction.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03029	US-03339	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Meter status update	I shall be able to update the Meter status to "Connected" or "Disconnected" after the successful completion of a connect/disconnect command.	US-03339 I shall be able to update the Meter status to "Connected" or "Disconnected" after the successful completion of a connect/disconnect command.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03031	US-03340	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Non billable meter data diagnostics	I shall be able to have the ability to run diagnostics to identify and provide reports for meters that regularly provide non billable Meter data.	US-03340 I shall be able to have the ability to run diagnostics to identify and provide reports for meters that regularly provide non billable Meter data.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03032	US-03341	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	On demand request	I shall be able to have the ability to send on demand requests to AMI Equipment in near real time.	US-03341 I shall be able to have the ability to send on demand requests to AMI Equipment in near real time.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03033	US-03342	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	On demand request/response storage	I shall be able to have the ability to receive & store on demand requests/response from individual or groups of devices.	US-03342 I shall be able to have the ability to receive & store on demand requests/response from individual or groups of devices.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03034	US-03343	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Demand reset request processing	I shall be able to have the ability to process a demand reset request for an individual Meter or group of Meters either by manual input or as a request from another Owner system.	US-03343 I shall be able to have the ability to process a demand reset request for an individual Meter or group of Meters either by manual input or as a request from another Owner system.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03041	US-03344	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Remote reconnect operation control	I shall be able to not allow a remote reconnect operation to be performed if load-side voltage is detected	US-03344 I shall be able to not allow a remote reconnect operation to be performed if load-side voltage is detected	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03041	US-03345	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Reconnect failure event indication	I shall be able to shall display an event flag indicating reconnect failure reason.	US-03345 I shall be able to shall display an event flag indicating reconnect failure reason.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03042	US-03346	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Meter electrical parameters	I shall be able to have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.	US-03346 I shall be able to have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03044	US-03347	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Remote reconnect/disconnect broadcast control	I shall be able to identify and restrict a broadcast remote disconnect/re-connect request, or a batch request exceeding a configurable number of service points. Requests beyond configurable batch size should have an	US-03347 I shall be able to identify and restrict a broadcast remote disconnect/re-connect request, or a batch request exceeding a configurable number of service points. Requests beyond configurable batch size should have	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03045	US-03348	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Scheduled device level events	I shall be able to have the ability to collect device level events (e.g. gas meter battery, hot socket, tamper, time sync, etc.)	US-03348 I shall be able to have the ability to collect device level events (e.g. gas meter battery, hot socket, tamper, time sync, etc.)	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03045	US-03349	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Storage of device level events	I shall be able to have the ability to store device level events (e.g. gas meter battery, hot socket, tamper, time sync, etc.)	US-03349 I shall be able to have the ability to store device level events (e.g. gas meter battery, hot socket, tamper, time sync, etc.)	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03045	US-03350	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Business events collection	I shall be able to have the ability to collect business events (high/low voltage, last gasp, missing read, reverse energy flow, etc.)	US-03350 I shall be able to have the ability to collect business events (high/low voltage, last gasp, missing read, reverse energy flow, etc.)	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03046	US-03351	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Configurable business logic	I shall be able to have the ability to de-duplicate, correlate, filter events based on the configurable business logic	US-03351 I shall be able to have the ability to de-duplicate, correlate, filter events based on the configurable business logic	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03047	US-03352	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Event data transaction	I shall be able to have the ability to provide event data to downstream system, either scheduled or on demand	US-03352 I shall be able to have the ability to provide event data to downstream system, either scheduled or on demand	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03049	US-03353	Metering AMI	RIEMTR AMI HE	Read to bill	Read processing	Meter data communication	I shall be able to send meter data to Green Button (or respond to Green Button inquiries from customer) within configurable time period	US-03353 I shall be able to send meter data to Green Button (or respond to Green Button inquiries from customer) within configurable time period	PI4	4/3/23	6/23/23	3/4. AMI CC	4

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REQ-03050	US-03354	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	Daily read	I shall be able to obtain daily reads at least 99.5% of the time.	US-03354 I shall be able to obtain daily reads at least 99.5% of the time.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03051	US-03355	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	Billing read	I shall be able to obtain billing reads at least 99.75% of the time.	US-03355 I shall be able to obtain billing reads at least 99.75% of the time.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03052	US-03356	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	High revenue read	I shall be able to obtain high revenue reads at 99.5% of the time.	US-03356 I shall be able to obtain high revenue reads at 99.5% of the time.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03053	US-03357	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	Interval read	I shall be able to obtain interval reads at least 99% of the time.	US-03357 I shall be able to obtain interval reads at least 99% of the time.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03054	US-03358	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Individual On demand read	I shall be able to receive an individual on-demand read within 60 seconds of its being issued at least 95% of the time.	US-03358 I shall be able to receive an individual on-demand read within 60 seconds of its being issued at least 95% of the time.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03055	US-03359	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Group On demand read	I shall be able to receive a group on-demand read within 10 minutes of its being issued at least 95% of the time.	US-03359 I shall be able to receive a group on-demand read within 10 minutes of its being issued at least 95% of the time.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03056	US-03360	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Ping response	I shall be able to receive an individual ping response within 45 seconds of its being issued at least 95% of the time.	US-03360 I shall be able to receive an individual ping response within 45 seconds of its being issued at least 95% of the time.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03057	US-03361	Metering AMI	RIEMTR AMI HE	Outage management/support	Outage collection, validation, management & modification	Outage differentiation	I shall be able to differentiate between a communications outage and a power system outage. Power system outages shall be communicated to other systems. Communication outages result in data not being available to other systems.	US-03361 I shall be able to differentiate between a communications outage and a power system outage. Power system outages shall be communicated to other systems. Communication outages result in data not being available to other systems.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06002	US-06362	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Power quality issue detection	I shall be able to provide the ability to monitor/detect flicker power quality issues	US-06362 I shall be able to provide the ability to monitor/detect flicker power quality issues	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-06003	US-06363	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Power quality issue monitoring	I shall be able to provide the ability to identify power quality issues in near real time with data from AMI Head End e.g. sags/swell events from AMI HE.	US-06363 I shall be able to provide the ability to identify power quality issues in near real time with data from AMI Head End e.g. sags/swell events from AMI HE.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-06004	US-06364	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Power quality issue monitoring	I shall be able to provide the ability to identify power quality issues in near real time including voltage transients issues from AMI Head End data.	US-06364 I shall be able to provide the ability to identify power quality issues in near real time including voltage transients issues from AMI Head End data.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-06005	US-06365	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Power quality location monitoring	I shall be capable of receiving power quality location data from the AMI Head End system	US-06365 I shall be capable of receiving power quality location data from the AMI Head End system	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03058	US-03366	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	Daily read- Energy register	I shall be able to measure daily data through the Head End System for Meters on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.5%) is defined as the Meter Registers	US-03366 I shall be able to measure daily data through the Head End System for Meters on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.5%) is defined as the Meter Registers	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03058	US-03367	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	Daily read- Demand register	I shall be able to measure daily data through the Head End System for Meters on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.5%) is defined as the Meter Registers - Demand Registers	US-03367 I shall be able to measure daily data through the Head End System for Meters on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.5%) is defined as the Meter Registers - Demand Registers	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03058	US-03368	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	Daily read- TOU register	I shall be able to measure daily data through the Head End System for Meters on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.5%) is defined as the Meter Registers - TOU Registers	US-03368 I shall be able to measure daily data through the Head End System for Meters on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.5%) is defined as the Meter Registers - TOU Registers	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-04108	US-04369	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	On demand read request	I shall able to support ad-hoc and scheduled request for on-demand read requests from Owner systems	US-04369 I shall able to support ad-hoc and scheduled request for on-demand read requests from Owner systems	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-04108	US-04370	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Demand reset request	I shall able to support ad-hoc and scheduled request for demand reset requests from Owner systems	US-04370 I shall able to support ad-hoc and scheduled request for demand reset requests from Owner systems	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03059	US-03371	Metering AMI	RIEMTR AMI HE	Read to bill	Performance metrics	Billing read -Energy register	I shall be able to measure data through the Head End System for Meters within their billing window (4 days) on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.75%) is defined as the Meter Registers - Energy Registers- kwh Summation, Delivered, and Received	US-03371 I shall be able to measure data through the Head End System for Meters within their billing window (4 days) on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.75%) is defined as the Meter Registers - Energy Registers- kwh Summation, Delivered, and Received	PI3	1/9/23	3/31/23	3/4. AMI CC	3
REQ-03059	US-03372	Metering AMI	RIEMTR AMI HE	Read to bill	Performance metrics	Billing read-Demand register	I shall be able to measure data through the Head End System for Meters within their billing window (4 days) on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.75%) is defined as the Meter Registers - Demand registers	US-03372 I shall be able to measure data through the Head End System for Meters within their billing window (4 days) on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.75%) is defined as the Meter Registers - Demand registers	PI4	4/3/23	6/23/23	3/4. AMI CC	4
REQ-03059	US-03373	Metering AMI	RIEMTR AMI HE	Read to bill	Performance metrics	Billing read-TOU register	I shall be able to measure data through the Head End System for Meters within their billing window (4 days) on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.75%) is defined as the Meter Registers - TOU registers	US-03373 I shall be able to measure data through the Head End System for Meters within their billing window (4 days) on a certified electric service point, the scheduled actual daily read must be available in the Head End System by 0700 hours for every meter, everyday based on the targets below: **Snap-read (≥ 99.75%) is defined as the Meter Registers - TOU registers	PI3	1/9/23	3/31/23	3/4. AMI CC	3
REQ-03060	US-03374	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	High revenue read- Scheduled interval data capture	I shall be able to measure scheduled interval data through the Head End System, the scheduled actual interval read data must be available in the Head End System by 0700 hours for Meters associated with complex billing within their billing window (4 days) on a certified electric service point.	US-03374 I shall be able to measure scheduled interval data through the Head End System, the scheduled actual interval read data must be available in the Head End System by 0700 hours for Meters associated with complex billing within their billing window (4 days) on a certified electric service point.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03060	US-03375	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	High revenue read- Scheduled interval data capture	I shall be able to measure scheduled interval data through the Head End System, the scheduled actual interval read data must be available in the Head End System by 0700 hours for Meters associated with complex billing within their billing window (4 days) on a certified electric service point based on the targets below: Intervals since last bill: = 99.5%	US-03375 I shall be able to measure scheduled interval data through the Head End System, the scheduled actual interval read data must be available in the Head End System by 0700 hours for Meters associated with complex billing within their billing window (4 days) on a certified electric service point based on the targets below: Intervals since last bill: = 99.5%	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03060	US-03376	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	High revenue read- Scheduled interval data capture	I shall be able to measure scheduled interval data through the Head End System, the scheduled actual interval read data must be available in the Head End System by 0700 hours for Meters associated with complex billing within their billing window (4 days) on a certified electric service point. Interval Read Data Elements are defined as: Delivered kWh (+kWh), Received kWh (-kWh), Voltage swells (per phase), Voltage swells (any phase),Voltage sags (per phase), Voltage sags (any phase),Amp Hours Phase A (IAh), Amp Hours Phase B (IBh), Amp Hours Phase C (ICh), Volt Hours Phase A (Vah), Volt Hours Phase B (Vbh), Volt Hours Phase C (Vch)	US-03376 I shall be able to measure scheduled interval data through the Head End System, the scheduled actual interval read data must be available in the Head End System by 0700 hours for Meters associated with complex billing within their billing window (4 days) on a certified electric service point. Interval Read Data Elements are defined as: Delivered kWh (+kWh), Received kWh (-kWh), Voltage swells (per phase), Voltage swells (any phase),Voltage sags (per phase), Voltage sags (any phase),Amp Hours Phase A (IAh), Amp Hours Phase B (IBh), Amp Hours Phase C (ICh), Volt Hours Phase A (Vah), Volt Hours Phase B (Vbh), Volt Hours Phase C (Vch)	PI5	6/26/23	9/1/23	3/4. AMI CC	5

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REQ-03061	US-03377	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	interval data read capture	I shall be able to measure interval data through the Head End System for meters on a certified electric service point, the scheduled actual interval data must be available in the Head End System, by Noon	US-03377 I shall be able to measure interval data through the Head End System for meters on a certified electric service point, the scheduled actual interval data must be available in the Head End System, by Noon	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03061	US-03378	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	interval data read capture	I shall be able to measure interval data through the Head End System for meters on a certified electric service point, the scheduled actual interval data must be available in the Head End System, by Noon for every interval data channel designated by Owner, of every Meter, everyday based on the targets below: *Prior day's recorded data for all configured intervals measured on by Noon: ≥ 99.00%	US-03378 I shall be able to measure interval data through the Head End System for meters on a certified electric service point, the scheduled actual interval data must be available in the Head End System, by Noon for every interval data channel designated by Owner, of every Meter, everyday based on the targets below: *Prior day's recorded data for all configured intervals measured on by Noon: ≥ 99.00%	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03061	US-03379	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	interval read data channels	I shall be able to measure interval data through the Head End System for meters on a certified electric service point, the scheduled actual interval data must be available in the Head End System, by Noon for every interval data channel designated by Owner, of every Meter, everyday. Interval Data Channels can be of the following data elements for Focus AX meters: Delivered kWh (+kWh), Received kWh (-kWh), Voltage swells (per phase), Voltage swells (any phase),Voltage sags (per phase), Voltage sags (any phase),Amp Hours Phase A (IAh), Amp Hours Phase B (IBh), Amp Hours Phase C (ICh), Volt Hours Phase A (Vah), Volt Hours Phase B (Vbh), Volt Hours Phase C (Vch)	US-03379 I shall be able to measure interval data through the Head End System for meters on a certified electric service point, the scheduled actual interval data must be available in the Head End System, by Noon for every interval data channel designated by Owner, of every Meter, everyday. Interval Data Channels can be of the following data elements for Focus AX meters: Delivered kWh (+kWh), Received kWh (-kWh), Voltage swells (per phase), Voltage swells (any phase),Voltage sags (per phase), Voltage sags (any phase),Amp Hours Phase A (IAh), Amp Hours Phase B (IBh), Amp Hours Phase C (ICh), Volt Hours Phase A (Vah), Volt Hours Phase B (Vbh), Volt Hours Phase C (Vch)	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03063	US-03380	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Single meter query	I shall be able to query single meter within 30 seconds for at least 95% of time during on request read	US-03380 I shall be able to query single meter within 30 seconds for at least 95% of time during on request read	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03065	US-03381	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Remote connect & disconnect command success rate- Bulk meters	I shall be able to check Remote Connect/Remote Disconnect (RCRD) command success rate and maximum elapsed time for each successful command issued under normal Solution Component operating conditions, will be measured on a weekly basis. *Target up to 1000 Meters: Success rate>= 95% Maximum elapsed time/command <= 120 seconds	US-03381 I shall be able to check Remote Connect/Remote Disconnect (RCRD) command success rate and maximum elapsed time for each successful command issued under normal Solution Component operating conditions, will be measured on a weekly basis. *Target up to 1000 Meters: Success rate>= 95% Maximum elapsed time/command <= 120 seconds	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03063	US-03382	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Bulk meter query	I shall be able to query up to 10,000 Meters less than 10 minutes for at least 95% of Meters during on request read	US-03382 I shall be able to query up to 10,000 Meters less than 10 minutes for at least 95% of Meters during on request read	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03064	US-03383	Metering AMI	RIEMTR AMI HE	Outage management/support	Outage collection, validation, management & modification	RF mesh outage	I shall be able to receive commands from the Head End System when 50 Meters in an established mesh lose power for greater than 5 minutes and then regain power, at least 80% of the meters will be available within 5 minutes after power restoration to the Meter	US-03383 I shall be able to receive commands from the Head End System when 50 Meters in an established mesh lose power for greater than 5 minutes and then regain power, at least 80% of the meters will be available within 5 minutes after power restoration to the Meter	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-15010	US-15384	Metering AMI	RIEMTR AMI HE	Installation and Commissioning	Meter installation & removal	Asset details capture	I shall be able to receive meter details from CSS upon completion of meter installation/removal/replacement.	US-15384 I shall be able to receive meter details from CSS upon completion of meter installation/removal/replacement.	PI2	10/24/22	1/6/23	3/4. AMI CC	2
REQ-03064	US-03385	Metering AMI	RIEMTR AMI HE	Outage management/support	Outage collection, validation, management & modification	RF mesh outage	I shall be able to receive commands from the Head End System when 50 Meters in an established mesh lose power for greater than 5 minutes and then regain power at least 90% of the meter will be available to receive and respond to commands from the Head End System within 7 minutes after power restoration to the Meter.	US-03385 I shall be able to receive commands from the Head End System when 50 Meters in an established mesh lose power for greater than 5 minutes and then regain power at least 90% of the meter will be available to receive and respond to commands from the Head End System within 7 minutes after power restoration to the Meter.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06015	US-06386	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Encryption/Management	View actual encrypted meters	I shall be able to view actual Meters encrypted with respect to expected meters encrypted for a given time period.	US-06386 I shall be able to view actual Meters encrypted with respect to expected meters encrypted for a given time period.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03065	US-03387	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Remote connect & disconnect command success rate- individual meter	I shall be able to check Remote Connect/Remote Disconnect (RCRD) command success rate and maximum elapsed time for each successful command issued under normal Solution Component operating conditions, will be measured on a weekly basis. *Target to an Individual Meter: Success rate >= 95% Maximum elapsed time/command <= 60 seconds	US-03387 I shall be able to check Remote Connect/Remote Disconnect (RCRD) command success rate and maximum elapsed time for each successful command issued under normal Solution Component operating conditions, will be measured on a weekly basis. *Target to an Individual Meter: Success rate >= 95% Maximum elapsed time/command <= 60 seconds	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-06020	US-06388	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	GPS coordinates transaction	I shall be able to view the percentage of AMI meters that have received GPS coordinates in the Head End.	US-06388 I shall be able to view the percentage of AMI meters that have received GPS coordinates in the Head End.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06024	US-06389	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Inactive meter read reporting	I shall be able to view the total amount of AMI meters that are not active meters and are not expecting a read. Unavailable meters are being removed from the denominator of the AMI Meter Read % KPI.	US-06389 I shall be able to view the total amount of AMI meters that are not active meters and are not expecting a read. Unavailable meters are being removed from the denominator of the AMI Meter Read % KPI.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06036	US-06390	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	Over the air programming	I shall be to track the performance of over the air programming to ensure the meters have the correct program Only applicable for AMI meters.	US-06390 I shall be to track the performance of over the air programming to ensure the meters have the correct program Only applicable for AMI meters.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-06037	US-06391	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Failure rate tracking	I shall be to track the failure rate of the remote connect / disconnect switch with respect to meter models Only applicable for AMI meters.	US-06391 I shall be to track the failure rate of the remote connect / disconnect switch with respect to meter models Only applicable for AMI meters.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-06038	US-06392	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Capture voltage deviation	I shall be able to confirm the voltage is within +/- 5% tolerance of nominal voltage Only applicable for AMI meters.	US-06392 I shall be able to confirm the voltage is within +/- 5% tolerance of nominal voltage Only applicable for AMI meters.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06040	US-06393	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	AMI network	Endpoint communication	I shall be able to view the amount of time that an endpoint is out of communications over a period of time Only applicable for AMI meters.	US-06393 I shall be able to view the amount of time that an endpoint is out of communications over a period of time Only applicable for AMI meters.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-06045	US-06394	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	AMI network	RF mesh availability	I shall be able to view the combined availability of RF Mesh Network devices aka AMI network components. % availability = time available / length of time of period measured	US-06394 I shall be able to view the combined availability of RF Mesh Network devices aka AMI network components. % availability = time available / length of time of period measured	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-06047	US-06395	Metering AMI	RIEMTR AMI HE	Meter command operations	Command request management	Disconnect meter status check	I shall be able to validate that the remotely disconnected meters in CSS is inline with meters in disconnect status on AMI network.	US-06395 I shall be able to validate that the remotely disconnected meters in CSS is inline with meters in disconnect status on AMI network.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-06047	US-06396	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	AMI network	Remotely disconnected meters count view	I shall be able to view the count of remotely disconnected meters in CSS vs count of remotely disconnected meters in CC	US-06396 I shall be able to view the count of remotely disconnected meters in CSS vs count of remotely disconnected meters in CC	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-06081	US-06397	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Revenue protection	Meter bypassing	I shall be able to identify energy bypassing meter using kW and Voltage data Only applicable for AMI meters.	US-06397 I shall be able to identify energy bypassing meter using kW and Voltage data Only applicable for AMI meters.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06082	US-06398	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Outage collection, validation, management & modification	Meter outage monitoring	I shall be able to identify meters with repeated sustained outages and momentary outages Only applicable for AMI meters.	US-06398 I shall be able to identify meters with repeated sustained outages and momentary outages Only applicable for AMI meters.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03066	US-03399	Metering AMI	RIEMTR AMI HE	Event and alarm management	Event & alarm management	Duplicate hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	US-03399 I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-03066	US-03400	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Missing hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	US-03400 I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03066	US-03401	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Internal & user interface Daylight savings	I shall be able to have the ability to properly handle daylight savings including internal and user interface representation	US-03401 I shall be able to have the ability to properly handle daylight savings including internal and user interface representation	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03066	US-03402	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Interface representation daylight savings	I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	US-03402 I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03067	US-03403	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Data Analytics	Gas meter- Capture methane detection	I shall be able to capture methane detection data from gas meter	US-03403 I shall be able to capture methane detection data from gas meter	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03068	US-03404	Metering AMI	RIEMTR AMI HE	Read to bill	IHD communication	In home display communciation	I shall be able to communicate with In Home Dispaly (IHD) to show the consumption details	US-03404 I shall be able to communicate with In Home Dispaly (IHD) to show the consumption details	PI7	12/18/23	3/22/24	3/4. AMI CC	7

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REQ-03070	US-03405	Metering AMI	RIEMTR AMI HE	Read to bill	Meter configuration	Pair mode configuration in IHD	I shall have the ability to configure the amount of time a Meter remains in pair mode for pairing an IHD.	US-03405 I shall have the ability to configure the amount of time a Meter remains in pair mode for pairing an IHD.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03071	US-03406	Metering AMI	RIEMTR AMI HE	Read to bill	IHD communication	Limiting IHD connectivity	I shall have the ability to limit the number of IHDs that a Meter can be paired with at one time and shall notify the customer when the maximum number of IHDs have been paired.	US-03406 I shall have the ability to limit the number of IHDs that a Meter can be paired with at one time and shall notify the customer when the maximum number of IHDs have been paired.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03073	US-03407	Metering AMI	RIEMTR AMI HE	Read to bill	Read processing	Pricing information & signals	I shall have the ability to send dynamic pricing information and price signals to the Meter	US-03407 I shall have the ability to send dynamic pricing information and price signals to the Meter	PI4	4/3/23	6/23/23	3/4. AMI CC	4
REQ-03076	US-03408	Metering AMI	RIEMTR AMI HE	Read to bill	IHD communication	IHD communication protocol	I shall have the ability to communicate to a IHD/HAN using communication protocol supported by the IHD/HAN device.	US-03408 I shall have the ability to communicate to a IHD/HAN using communication protocol supported by the IHD/HAN device.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03079	US-03409	Metering AMI	RIEMTR AMI HE	Read to bill	IHD communication	Meter to IHD pairing	I shall ensure Meter to IHD device pairing, and only allow the meter to communicate to the paired IHD.	US-03409 I shall ensure Meter to IHD device pairing, and only allow the meter to communicate to the paired IHD.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03083	US-03410	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Audit Trails and Logs	Unauthenticated attempt to communicate IHD	I shall log all unauthenticated messages attempting to communicate to an IHD via the Network Equipment.	US-03410 I shall log all unauthenticated messages attempting to communicate to an IHD via the Network Equipment.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03087	US-03411	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	AMI network	HAN devices list	I shall be able to store a list of available commissioned HAN Devices in the premise and make that list available upon request.	US-03411 I shall be able to store a list of available commissioned HAN Devices in the premise and make that list available upon request.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-06087	US-06412	Metering AMI	RIEMTR AMI HE	Read to bill	IHD communication	IHD pairing/unpairing request	I shall be able to receive a request to enable an In Home Device (IHD) to be paired or unpaired from a Owner (Owner internal portal) or third party system	US-06412 I shall be able to receive a request to enable an In Home Device (IHD) to be paired or unpaired from a Owner (Owner internal portal) or third party system	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06087	US-06413	Metering AMI	RIEMTR AMI HE	Read to bill	IHD communication	IHD pairing/unpairing transaction	I shall be able to transfer the IHD pairing or unpairing request to the Head End.	US-06413 I shall be able to transfer the IHD pairing or unpairing request to the Head End.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06088	US-06414	Metering AMI	RIEMTR AMI HE	Read to bill	IHD communication	IHD pairing/unpairing response	I shall be able to receive a successful IHD "pairing" or "un-pairing" response from the Meter.	US-06414 I shall be able to receive a successful IHD "pairing" or "un-pairing" response from the Meter.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-03088	US-03415	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Electric interval read retrieval	I shall be able to receive 5 or 15 minute interval Electric meter read data at 20 minutes interval .	US-03415 I shall be able to receive 5 or 15 minute interval Electric meter read data at 20 minutes interval .	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03089	US-03416	Metering AMI	RIEMTR AMI HE	Read to bill	Data collection	Gas interval read retrieval	I shall be able to receive 60 minute Gas interval meter read data at 6 hours interval.	US-03416 I shall be able to receive 60 minute Gas interval meter read data at 6 hours interval.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-03091	US-03417	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Performance metrics	CC performance measure	I shall be able to provide application availability/uptime/performance metrices for CC.	US-03417 I shall be able to provide application availability/uptime/performance metrices for CC.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-05003	US-05418	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	customer billing support	I shall be able to support customer billing often requiring combination of multiple meters and multiple channels to derive the final values in MDMS for customer billing.	US-05418 I shall be able to support customer billing often requiring combination of multiple meters and multiple channels to derive the final values in MDMS for customer billing.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-05003	US-05419	Metering - Meter Data Management	RIEMTR MDMS	Read to bill	Billing support	Interval based interchange accounting support	I shall be able to support interval based interchange accounting (tie lines, generators, etc), often requiring combination of multiple meters and multiple channels to derive the final values for interchange.	US-05419 I shall be able to support interval based interchange accounting (tie lines, generators, etc), often requiring combination of multiple meters and multiple channels to derive the final values for interchange.	PI3	1/9/23	3/31/23	3/4. MDMS+VEE	3
REQ-05004	US-05420	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 data estimation	I shall be able to send MDMS estimated MV90 data when data is determined irretrievable from an MV90 meter.	US-05420 I shall be able to send MDMS estimated MV90 data when data is determined irretrievable from an MV90 meter.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05005	US-05421	Metering-MV90	RIEMTR MV90 Electric - Gas	Installation and Commissioning	Meter installation & removal	MV90- Final read communication	I shall be able to communicate a final read of the meter to MV90 operations before removing the MV90 meter from the premise for all MV90 installations,	US-05421 I shall be able to communicate a final read of the meter to MV90 operations before removing the MV90 meter from the premise for all MV90 installations,	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05006	US-05422	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Interval data retrieval	I shall be able to connect MV90 meters/recorders to retrieve interval data via dial-up or PSTN or TCP/IP based communications.	US-05422 I shall be able to connect MV90 meters/recorders to retrieve interval data via dial-up or PSTN or TCP/IP based communications.	PI2	10/24/22	1/6/23	2. MV90	2
REQ-05006	US-05423	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Register data retrieval	I shall be able to connect MV90 meters/recorders to retrieve register data via dial-up or PSTN or TCP/IP based communications.	US-05423 I shall be able to connect MV90 meters/recorders to retrieve register data via dial-up or PSTN or TCP/IP based communications.	PI2	10/24/22	1/6/23	2. MV90	2
REQ-05006	US-05424	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Event data retrieval	I shall be able to connect MV90 meters/recorders to retrieve event data via dial-up or PSTN or TCP/IP based communications.	US-05424 I shall be able to connect MV90 meters/recorders to retrieve event data via dial-up or PSTN or TCP/IP based communications.	PI2	10/24/22	1/6/23	2. MV90	2
REQ-05007	US-05425	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	MV90 gas-Electrical parameter data loading	I shall be able to load the following data for MV90 meters onto one file on business days: -5/15 minute values for all channels (kWh, KVARH, etc) for elec	US-05425 I shall be able to load the following data for MV90 meters onto one file on business days: -5/15 minute values for all channels (kWh, KVARH, etc) for elec	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05007	US-05426	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	MV90 gas-Gas channels loading	I shall be able to load the following data for MV90 meters onto one file on business days: - 60 minute values for all channels(M3,GJ etc) for Gas	US-05426 I shall be able to load the following data for MV90 meters onto one file on business days: - 60 minute values for all channels(M3,GJ etc) for Gas	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05007	US-05427	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	Meter serial no loading	I shall be able to load the following data for MV90 meters onto one file on business days: -Meter serial number	US-05427 I shall be able to load the following data for MV90 meters onto one file on business days: -Meter serial number	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05007	US-05428	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	Start reading time loading	I shall be able to load the following data for MV90 meters onto one file on business days: -Start time reading for the day	US-05428 I shall be able to load the following data for MV90 meters onto one file on business days: -Start time reading for the day	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05007	US-05429	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	End reading time loading	I shall be able to load the following data for MV90 meters onto one file on business days: -End time reading for the day	US-05429 I shall be able to load the following data for MV90 meters onto one file on business days: -End time reading for the day	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05008	US-05430	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	MV90 electric-Electrical parameter data	I shall be able to use the same data format for passing data to the MDMS that contain the following data: -5/15 minute values for all channels (kWh, KVARH, etc.) for elec	US-05430 I shall be able to use the same data format for passing data to the MDMS that contain the following data: -5/15 minute values for all channels (kWh, KVARH, etc.) for elec	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05008	US-05431	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	MV90 gas- Gas channels	I shall be able to use the same data format for passing data to the MDMS that contain the following data: -60 minute values for all channels(M3,GJ etc) for Gas	US-05431 I shall be able to use the same data format for passing data to the MDMS that contain the following data: -60 minute values for all channels(M3,GJ etc) for Gas	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05008	US-05432	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	MV90 Elec & gas- Meter serial no format	I shall be able to use the same data format for passing data to the MDMS that contain the following data: -Meter serial number	US-05432 I shall be able to use the same data format for passing data to the MDMS that contain the following data: -Meter serial number	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05008	US-05433	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	MV90 Elec & gas-Start reading time format	I shall be able to use the same data format for passing data to the MDMS that contain the following data: -Start time reading for the day	US-05433 I shall be able to use the same data format for passing data to the MDMS that contain the following data: -Start time reading for the day	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05008	US-05434	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read data format	MV90 Elec & gas-End reading time format	I shall be able to use the same data format for passing data to the MDMS that contain the following data: -End time reading for the day	US-05434 I shall be able to use the same data format for passing data to the MDMS that contain the following data: -End time reading for the day	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05009	US-05435	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 electric meters-Register read validation	I shall be able to have the ability to perform validation of register data based on the configurable criteria receive from MV90 Electric meters	US-05435 I shall be able to have the ability to perform validation of register data based on the configurable criteria receive from MV90 Electric meters	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05009	US-05436	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 electric meters- Interval read validation	I shall be able to have the ability to perform validation of interval data based on the configurable criteria receive from MV90 Electric meters	US-05436 I shall be able to have the ability to perform validation of interval data based on the configurable criteria receive from MV90 Electric meters	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05009	US-05437	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 gas meters-Register read validation	I shall be able to have the ability to perform validation of register data based on the configurable criteria receive from both MV90 Gas meters	US-05437 I shall be able to have the ability to perform validation of register data based on the configurable criteria receive from both MV90 Gas meters	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05009	US-05438	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 gas meters- Interval read validation	I shall be able to have the ability to perform validation of interval data based on the configurable criteria receive from MV90 Gas meters	US-05438 I shall be able to have the ability to perform validation of interval data based on the configurable criteria receive from MV90 Gas meters	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05010	US-05439	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 electric meters-Interval read estimation	I shall be able to have the ability to perform the estimation of interval data when data is determined irretrievable from an MV90 electric meters.	US-05439 I shall be able to have the ability to perform the estimation of interval data when data is determined irretrievable from an MV90 electric meters.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05010	US-05440	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 electric meters- Register read estimation	I shall be able to have the ability to perform the estimation of register data when data is determined irretrievable from an MV90 electric meters.	US-05440 I shall be able to have the ability to perform the estimation of register data when data is determined irretrievable from an MV90 electric meters.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05010	US-05441	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 gas meter- Interval read estimation	I shall be able to have the ability to perform the estimation of interval data when data is determined irretrievable from an MV90 gas meters.	US-05441 I shall be able to have the ability to perform the estimation of interval data when data is determined irretrievable from an MV90 gas meters.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05010	US-05442	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 gas meters- Register read estimation	I shall be able to have the ability to perform the estimation of register data when data is determined irretrievable from an MV90 gas meters.	US-05442 I shall be able to have the ability to perform the estimation of register data when data is determined irretrievable from an MV90 gas meters.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05011	US-05443	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 electric meter -Read data adjustment	I shall be able to have the ability to perform editing or adjustment of data receive from MV90 Electric	US-05443 I shall be able to have the ability to perform editing or adjustment of data receive from MV90 Electric	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05012	US-05444	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Validation, Estimation & editing	MV90 gas meters- Read data adjustment	I shall be able to have the ability to perform editing or adjustment of data receive from MV90 Gas	US-05444 I shall be able to have the ability to perform editing or adjustment of data receive from MV90 Gas	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05013	US-05445	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Communication Infrastructure	I shall be able to have communicate and collect reads from Electric Analog meter	US-05445 I shall be able to have communicate and collect reads from Electric Analog meter	PI1	8/29/22	10/21/22	2. MV90	1
REQ-05014	US-05446	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	MV90 meter - Receive channel data	I shall be able to receive MV90 meter channel data from multiple channels.	US-05446 I shall be able to receive MV90 meter channel data from multiple channels.	PI3	1/9/23	3/31/23	2. MV90	3

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REQ-05013	US-05447	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Communication Infrastructure	I shall be able to have communicate and collect reads from IP enabled electric meter	US-05447 I shall be able to have communicate and collect reads from IP enabled electric meter	PI1	8/29/22	10/21/22	2. MV90	1
REQ-05014	US-05448	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	MV90 meter - Store channel data	I shall be able to store MV90 meter channel data from multiple channels.	US-05448 I shall be able to store MV90 meter channel data from multiple channels.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05013	US-05449	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Communication Infrastructure	I shall be able to have communicate and collect reads from IP enabled gas meter	US-05449 I shall be able to have communicate and collect reads from IP enabled gas meter	PI1	8/29/22	10/21/22	2. MV90	1
REQ-05014	US-05450	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Meter configuration	Meter channel configuration	I shall be able to configure the number of channels supporting a maximum number of 48 channels.	US-05450 I shall be able to configure the number of channels supporting a maximum number of 48 channels.	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05015	US-05451	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	MV90 meter channel indicator receive	I shall be able to receive an indicator for channels for generation meters with differentiators between delivered, received, or generation from MV90 meters.	US-05451 I shall be able to receive an indicator for channels for generation meters with differentiators between delivered, received, or generation from MV90 meters.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05015	US-05452	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	MV90 meter channel indicator store	I shall be able to store an indicator for channels for generation meters with differentiators between delivered, received, or generation from MV90 meters.	US-05452 I shall be able to store an indicator for channels for generation meters with differentiators between delivered, received, or generation from MV90 meters.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05016	US-05453	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Interchange account data	I shall be able to have the ability to send interchange account data to MDMS / CSS.	US-05453 I shall be able to have the ability to send interchange account data to MDMS / CSS.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05017	US-05454	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Record transaction	I shall be able to have the ability send full or partial record for an account to MDMS/CSS	US-05454 I shall be able to have the ability send full or partial record for an account to MDMS/CSS	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05018	US-05455	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Multiple day data file transaction	I shall be able to have the ability to send to MDMS / CSS multiple day data file that contains all of the intervals for each day and the anchor reads.	US-05455 I shall be able to have the ability to send to MDMS / CSS multiple day data file that contains all of the intervals for each day and the anchor reads.	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05019	US-05456	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Profiling system read communication	I shall be able to have the ability to send meter read data to profiling systems.	US-05456 I shall be able to have the ability to send meter read data to profiling systems.	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05019	US-05457	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Forecasting system read communication	I shall be able to have the ability to send meter read data to forecasting systems.	US-05457 I shall be able to have the ability to send meter read data to forecasting systems.	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05020	US-05458	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Meter read communication	I shall be able to have the ability to send meter read data to MDMS	US-05458 I shall be able to have the ability to send meter read data to MDMS	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05020	US-05459	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Downstream read communication	I shall be able to provide meter read data from MDMS to Retail and wholesale settlement systems.	US-05459 I shall be able to provide meter read data from MDMS to Retail and wholesale settlement systems.	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05021	US-05460	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Interval read data collection	I shall be able to have the ability to receive interval meter read data from AMR data collection system	US-05460 I shall be able to have the ability to receive interval meter read data from AMR data collection system	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05022	US-05461	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Data collection	Read data collection	I shall be able to have the ability to receive meter read data from AMR data collection system	US-05461 I shall be able to have the ability to receive meter read data from AMR data collection system	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05023	US-05462	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	MV90 Elec meter-Read data communication	I shall be able to have the ability to send meter read data for Gas meters to other third party system (TSA-RI in exiting RI solution)	US-05462 I shall be able to have the ability to send meter read data for Gas meters to other third party system (TSA-RI in exiting RI solution)	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05024	US-05463	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Scheduled dial meter reads	I shall be able to have the ability to dial the meter reads via schedule process	US-05463 I shall be able to have the ability to dial the meter reads via schedule process	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05024	US-05464	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Manual dial meter reads	I shall be able to have the ability to dial the meter reads via manual process	US-05464 I shall be able to have the ability to dial the meter reads via manual process	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05025	US-05465	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	MV90 Elec meter-Read data communication	I shall be able to have the ability to send meter read data for Elec meters to other third party system	US-05465 I shall be able to have the ability to send meter read data for Elec meters to other third party system	PI3	1/9/23	3/31/23	2. MV90	3
REQ-05026	US-05466	Metering-MV90	RIEMTR MV90 Electric - Gas	Meter command operations	Command request management	On demand ping for service	I shall be able to have the ability to service interrogation for on-demand ping	US-05466 I shall be able to have the ability to service interrogation for on-demand ping	PI3	1/9/23	3/31/23	3/4. AMI CC	3
REQ-05027	US-05467	Metering-MV90	RIEMTR MV90 Electric - Gas	Business analytics and reporting	Data Analytics	Duplicate hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	US-05467 I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05027	US-05468	Metering-MV90	RIEMTR MV90 Electric - Gas	Business analytics and reporting	Data Analytics	Missing hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	US-05468 I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05027	US-05469	Metering-MV90	RIEMTR MV90 Electric - Gas	Business analytics and reporting	Data Analytics	Internal & user interface Daylight savings	I shall be able to have the ability to properly handle daylight savings including the internal and user interface representation.	US-05469 I shall be able to have the ability to properly handle daylight savings including the internal and user interface representation.	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05027	US-05470	Metering-MV90	RIEMTR MV90 Electric - Gas	Business analytics and reporting	Data Analytics	Interface representation daylight savings	I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	US-05470 I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05029	US-05471	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Meter read availablity	I shall be able to have all yesterdays MV90 readings to be in and available to MDMS by 5:00AM Est each day	US-05471 I shall be able to have all yesterdays MV90 readings to be in and available to MDMS by 5:00AM Est each day	PI4	4/3/23	6/23/23	2. MV90	4
REQ-05029	US-05472	Metering-MV90	RIEMTR MV90 Electric - Gas	Read to bill	Read processing	Interval read availablity	I shall be able to have all yesterdays MV90 intervals to be in and available to MDMS by 5:00AM Est each day	US-05472 I shall be able to have all yesterdays MV90 intervals to be in and available to MDMS by 5:00AM Est each day	PI4	4/3/23	6/23/23	2. MV90	4
REQ-14003	US-14473	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement configuration	Tolerance check configuration	I shall be able to have a configurable tolerance check between the initial and final values of zonal load data.	US-14473 I shall be able to have a configurable tolerance check between the initial and final values of zonal load data.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-14005	US-14474	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement configuration	User notification-Anomalies notification	I shall be able to have the ability to notify users in a dashboard for any anomalies	US-14474 I shall be able to have the ability to notify users in a dashboard for any anomalies	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-14006	US-14475	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement configuration	Data correction	I shall be able to correct the data before closure of settlement window.	US-14475 I shall be able to correct the data before closure of settlement window.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-14006	US-14476	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement configuration	Settlement window configuration	I shall be able to configure settlement window in the system	US-14476 I shall be able to configure settlement window in the system	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-14008	US-14477	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Zonewise-Hourly load calculation	I shall be able to calculate hourly load for each zone for last 24 hours.	US-14477 I shall be able to calculate hourly load for each zone for last 24 hours.	PI1	8/29/22	10/21/22	5. Load Profiling & Forecasting	1
REQ-14009	US-14478	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	User permission for zonal load correction	I shall be able to allow users to correct the zonal loads till submission deadline	US-14478 I shall be able to allow users to correct the zonal loads till submission deadline	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-14010	US-14479	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Scheduled read transaction	I shall be able to pass the reads to the NE-ISO market based on a time schedule.	US-14479 I shall be able to pass the reads to the NE-ISO market based on a time schedule.	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-14010	US-14480	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Ad-Hoc read transaction	I shall be able to pass the reads to the NE-ISO market based on ad-hoc.	US-14480 I shall be able to pass the reads to the NE-ISO market based on ad-hoc.	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-14011	US-14481	Wholesale settlement	RIEMTR Wholesale Settlement	Business analytics and reporting	Data Analytics	Duplicate hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	US-14481 I shall be able to have the ability to properly handle daylight savings including the duplicate hour in the fall	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-14011	US-14482	Wholesale settlement	RIEMTR Wholesale Settlement	Business analytics and reporting	Data Analytics	Missing hour daylight savings	I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	US-14482 I shall be able to have the ability to properly handle daylight savings including the missing hour in the spring	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-14011	US-14483	Wholesale settlement	RIEMTR Wholesale Settlement	Business analytics and reporting	Data Analytics	Internal & user interface Daylight savings	I shall be able to have the ability to properly handle daylight savings including the internal and user interface representation.	US-14483 I shall be able to have the ability to properly handle daylight savings including the internal and user interface representation.	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-14011	US-14484	Wholesale settlement	RIEMTR Wholesale Settlement	Business analytics and reporting	Data Analytics	Interface representation daylight savings	I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	US-14484 I shall be able to have the ability to properly handle daylight savings including the representation in interfaces to other applications.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-13001	US-13485	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	Business day outlook period configuration	I shall be able to configure the business day outlook period	US-13485 I shall be able to configure the business day outlook period	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-13001	US-13486	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Settlement A backcast daily schedule	I shall be able to run Settlement A Backcast daily for two business days prior, before 1 PM.	US-13486 I shall be able to run Settlement A Backcast daily for two business days prior, before 1 PM.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13002	US-13487	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Hourly load calculation for 24 hrs	I shall be able to calculate hourly load for the 24 hour period 2 days prior.	US-13487 I shall be able to calculate hourly load for the 24 hour period 2 days prior.	PI1	8/29/22	10/21/22	5. Load Profiling & Forecasting	1
REQ-13003	US-13488	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Interval data hourly load calculation	I shall be able to calculate hourly load using validated interval data for each account	US-13488 I shall be able to calculate hourly load using validated interval data for each account	PI1	8/29/22	10/21/22	5. Load Profiling & Forecasting	1
REQ-13004	US-13489	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	ISO-NE zonal load file collection	I shall be able to receive the ISO-NE Zonal Load file	US-13489 I shall be able to receive the ISO-NE Zonal Load file	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-13025	US-13490	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Hourly zonal load file collection	I shall be able to receive the hourly zonal load file from Wholesale settlement system on a daily basis.	US-13490 I shall be able to receive the hourly zonal load file from Wholesale settlement system on a daily basis.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-13005	US-13491	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Hourly load aggregation	I shall be able to aggregate the hourly load to the supplier level for Settlement A&B aggregations.	US-13491 I shall be able to aggregate the hourly load to the supplier level for Settlement A&B aggregations.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13006	US-13492	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Hourly UFE factor calculation	I shall be able to calculate the UFE factor by hour for Settlement A&B aggregations..	US-13492 I shall be able to calculate the UFE factor by hour for Settlement A&B aggregations..	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13007	US-13493	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	UFE factor calculation exclusion	I shall be able to exclude specific accounts (configurable) from UFE Factor calculations for Settlement A&B aggregations	US-13493 I shall be able to exclude specific accounts (configurable) from UFE Factor calculations for Settlement A&B aggregations	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13008	US-13494	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Separate line items creation	I shall be able to create separate line items for individual supplier contract numbers in the Settlement A&B aggregation files.	US-13494 I shall be able to create separate line items for individual supplier contract numbers in the Settlement A&B aggregation files.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13009	US-13495	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	UFE report- Day of the week	I shall be able to generate a "Daily UFE History Report" for Day of the Week	US-13495 I shall be able to generate a "Daily UFE History Report" for Day of the Week	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13009	US-13496	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	UFE report- Date of the week	I shall be able to generate a "Daily UFE History Report" for Date of the week,	US-13496 I shall be able to generate a "Daily UFE History Report" for Date of the week,	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13009	US-13497	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	UFE report- Total aggregation	I shall be able to generate a "Daily UFE History Report" for total Aggregation	US-13497 I shall be able to generate a "Daily UFE History Report" for total Aggregation	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13009	US-13498	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	UFE report- UFE	I shall be able to generate a "Daily UFE History Report" for UFE	US-13498 I shall be able to generate a "Daily UFE History Report" for UFE	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13009	US-13499	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	UFE report- Total (Total Aggregation + UFE)	I shall be able to generate a "Daily UFE History Report" for Total (Total Aggregation + UFE)	US-13499 I shall be able to generate a "Daily UFE History Report" for Total (Total Aggregation + UFE)	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4

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REQ-13009	US-13500	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	UFE report-% UFE (% of the Total that UFE accounts for)	I shall be able to generate a "Daily UFE History Report" for % UFE (% of the Total that UFE accounts for)	US-13500 I shall be able to generate a "Daily UFE History Report" for % UFE (% of the Total that UFE accounts for)	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13010	US-13501	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Supplier contract number	I shall be able to generate a five day (configurable) report of the Settlement A file with Supplier Contract Number	US-13501 I shall be able to generate a five day (configurable) report of the Settlement A file with Supplier Contract Number	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13010	US-13502	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Date	I shall be able to generate a five day (configurable) report of the Settlement A file with Date	US-13502 I shall be able to generate a five day (configurable) report of the Settlement A file with Date	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13010	US-13503	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Aggregated estimated MW for each hour	I shall be able to generate a five day (configurable) report of the Settlement A file with aggregated Estimated MW for each hour (1-24) per Contract Number	US-13503 I shall be able to generate a five day (configurable) report of the Settlement A file with aggregated Estimated MW for each hour (1-24) per Contract Number	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13011	US-13504	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Approved settlement A file processing	I shall be able to send all approved Settlement A Backcast files to the data warehouse when the backcast is approved.	US-13504 I shall be able to send all approved Settlement A Backcast files to the data warehouse when the backcast is approved.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13012	US-13505	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	User authorization-ISO-NE zonal load update	I shall be able to provide a user the ability to update the ISO-NE zonal load for a backcast day at any time.	US-13505 I shall be able to provide a user the ability to update the ISO-NE zonal load for a backcast day at any time.	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-13013	US-13506	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Settlement B backcast monthly schedule	I shall be able to run Settlement B Backcast for a one month period, 90 days after the end of the month.	US-13506 I shall be able to run Settlement B Backcast for a one month period, 90 days after the end of the month.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13013	US-13507	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	Outlook period configuration	I shall be able to configure the outlook period	US-13507 I shall be able to configure the outlook period	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-13014	US-13508	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Scheduled settlement B calculation	I shall be able to calculate Settlement B as the difference between the hourly load and the approved Settlement A submitted to ISO-NE for a specified period of time mm/dd/yyyy - mm/dd/yyyy.	US-13508 I shall be able to calculate Settlement B as the difference between the hourly load and the approved Settlement A submitted to ISO-NE for a specified period of time mm/dd/yyyy - mm/dd/yyyy.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13015	US-13509	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Settlement B monthly report	I shall be able to create a Settlement B Report monthly, when the settlement B process is run	US-13509 I shall be able to create a Settlement B Report monthly, when the settlement B process is run	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13016	US-13510	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Scheduled Settlement B aggregation	I shall be able to have the capability to schedule Settlement B aggregation according to a configurable schedule loaded in the system.	US-13510 I shall be able to have the capability to schedule Settlement B aggregation according to a configurable schedule loaded in the system.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13017	US-13511	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	User configuration-Export file with supplier contract number	I shall be able to provide a user the ability to export the Settlement B Backcast file with Supplier Contract Number	US-13511 I shall be able to provide a user the ability to export the Settlement B Backcast file with Supplier Contract Number	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-13017	US-13512	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	Export file with date	I shall be able to provide a user the ability to export the Settlement B Backcast file with Date	US-13512 I shall be able to provide a user the ability to export the Settlement B Backcast file with Date	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-13017	US-13513	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	Export file with Hourly Delta between submitted Settlement A and Settlement B	I shall be able to provide a user the ability to export the Settlement B Backcast file with Hourly Delta between submitted Settlement A and Settlement B	US-13513 I shall be able to provide a user the ability to export the Settlement B Backcast file with Hourly Delta between submitted Settlement A and Settlement B	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-13018	US-13514	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	Settlement B aggregation on demand request	I shall be able to provide a user the ability to request an on demand Settlement B aggregation.	US-13514 I shall be able to provide a user the ability to request an on demand Settlement B aggregation.	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-13019	US-13515	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Approved settlement B file processing	I shall be able send all approved Settlement B Backcast files to the data warehouse when the backcast is approved.	US-13515 I shall be able send all approved Settlement B Backcast files to the data warehouse when the backcast is approved.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13020	US-13516	Retail settlement	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Import daily forecasted weather	I shall be able to import daily forecasted weather from the weather bank prior to Settlement Forecast.	US-13516 I shall be able to import daily forecasted weather from the weather bank prior to Settlement Forecast.	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-13021	US-13517	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	One year settlement forecast file storage	I shall be able to store approved settlement forecast files for at least one year.	US-13517 I shall be able to store approved settlement forecast files for at least one year.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-13022	US-13518	Retail settlement	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Two year settlement A backcast file storage	I shall be able to store approved settlement A backcast files for two years.	US-13518 I shall be able to store approved settlement A backcast files for two years.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12001	US-12519	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	User capability-New tagset creation	I shall be able to provide a user the capability to create a new tagset	US-12519 I shall be able to provide a user the capability to create a new tagset	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-12005	US-12520	Settlement tag creation	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Daily weather station code collection	I shall be able to have the ability to receive daily update to weather station code from CSS	US-12520 I shall be able to have the ability to receive daily update to weather station code from CSS	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-12008	US-12521	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement configuration	User configuration-User chosen default tags	I shall be able to provide for the user to choose which default tags (average, median, or modified) will be used for each rate class for the duration of the tagsets existence in the system.	US-12521 I shall be able to provide for the user to choose which default tags (average, median, or modified) will be used for each rate class for the duration of the tagsets existence in the system.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-12011	US-12522	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement aggregation	Tags aggregation	I shall be able to aggregate tags by account for all accounts for each day in the forecast/backcast	US-12522 I shall be able to aggregate tags by account for all accounts for each day in the forecast/backcast	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-12011	US-12523	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement aggregation	Default Tags aggregation	I shall be able to aggregate default tags by account for all accounts for each day in the forecast/backcast	US-12523 I shall be able to aggregate default tags by account for all accounts for each day in the forecast/backcast	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-12012	US-12524	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement aggregation	Assigned tag values storage	I shall be able to store all assigned tag values when the tagset is set to approved.	US-12524 I shall be able to store all assigned tag values when the tagset is set to approved.	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-12014	US-12525	Settlement tag creation	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Accounts by rate report	I shall be able to have the ability to provide an "Accounts by rate" report from the tag calculation results	US-12525 I shall be able to have the ability to provide an "Accounts by rate" report from the tag calculation results	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-12015	US-12526	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Tag creation & calculation	Tag calculation maintenance	I shall be able to have the ability to maintain the tags at the account level (not at a meter level).	US-12526 I shall be able to have the ability to maintain the tags at the account level (not at a meter level).	PI2	10/24/22	1/6/23	3/4. MDMS+VEE	2
REQ-12016	US-12527	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Tag creation & calculation	ICAP tag freeze	I shall be able to provide the ability to freeze an ICAP tag value at the account level during the tag creation process. This implies that the tag will not be scaled by the reconciliation factor and thus must be removed from the calculation of the reconciliation factor	US-12527 I shall be able to provide the ability to freeze an ICAP tag value at the account level during the tag creation process. This implies that the tag will not be scaled by the reconciliation factor and thus must be removed from the calculation of the reconciliation factor	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12031	US-12528	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Tag creation & calculation	Forecast capacity tag calculations	I shall be able to forecast capacity tag calculations for multiple days in the past or future and across past, current and future tag levels	US-12528 I shall be able to forecast capacity tag calculations for multiple days in the past or future and across past, current and future tag levels	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12038	US-12529	Settlement tag creation	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Distribution line loss	I shall be able to calculate ICAP for each customer based on individual customer peak hour and the following adjustment: - Distribution line loss (received from ISO-NE)	US-12529 I shall be able to calculate ICAP for each customer based on individual customer peak hour and the following adjustment: - Distribution line loss (received from ISO-NE)	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-12038	US-12530	Settlement tag creation	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Transmission line loss	I shall be able to calculate ICAP for each customer based on individual customer peak hour and the following adjustment: - Transmission line loss including an allocation of ISO-NE high voltage transmission losses	US-12530 I shall be able to calculate ICAP for each customer based on individual customer peak hour and the following adjustment: - Transmission line loss including an allocation of ISO-NE high voltage transmission losses	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-12039	US-12531	Settlement tag creation	RIEMTR MDMS	Business analytics and reporting	Settlement reports	Error identification in ICAP forecast file	I shall be able to generate the "Day over Day Comparison" report to identify any errors in the ICAP forecast file when the forecast is generated. The ICAP forecast file shall contain the following fields:	US-12531 I shall be able to generate the "Day over Day Comparison" report to identify any errors in the ICAP forecast file when the forecast is generated. The ICAP forecast file shall contain the following fields:	PI4	4/3/23	6/23/23	3/4. MDMS+VEE	4
REQ-11001	US-11532	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Read data collection	I shall be able to receive interval read data and non-interval read data from MDMS to support profiling and forecasting	US-11532 I shall be able to receive interval read data and non-interval read data from MDMS to support profiling and forecasting	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11002	US-11533	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Read data collection	I shall be able to receive validated read data (VEE'd) from MDMS	US-11533 I shall be able to receive validated read data (VEE'd) from MDMS	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11003	US-11534	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Create and edit load profile	I shall have the ability to create and edit load profile for each rate class defined in CSS. Load research meters are not going away in the short term. Load research meters will need to be used to generate load profiles.	US-11534 I shall have the ability to create and edit load profile for each rate class defined in CSS. Load research meters are not going away in the short term. Load research meters will need to be used to generate load profiles.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-11003	US-11535	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Use AMI data for settlement	I shall have the ability to settle premise using AMI data while AMI meters are being rolled out and If the premise has an AMI Meter.	US-11535 I shall have the ability to settle premise using AMI data while AMI meters are being rolled out and If the premise has an AMI Meter.	PI6	10/2/23	12/15/23	5. Load Profiling & Forecasting	6
REQ-11004	US-11536	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Load determination rule	I shall have the ability to determine the "previous same day" based on the similar day last year (+/- 1 month) with the closest wholesale load and uses the customer usage on that day.	US-11536 I shall have the ability to determine the "previous same day" based on the similar day last year (+/- 1 month) with the closest wholesale load and uses the customer usage on that day.	PI1	8/29/22	10/21/22	5. Load Profiling & Forecasting	1

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REQ-11005	US-11537	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Create and edit load profile	I shall utilize previous same day for estimation of meter read for creating profiles. **To be confirmed with RI	US-11537 I shall utilize previous same day for estimation of meter read for creating profiles. **To be confirmed with RI	PI1	8/29/22	10/21/22	5. Load Profiling & Forecasting	1
REQ-11006	US-11538	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Create and edit load profile	I shall be able to utilize linear interpolation/extrapolation in estimation to be used for profile creation process.	US-11538 I shall be able to utilize linear interpolation/extrapolation in estimation to be used for profile creation process.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11007	US-11539	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Flexible estimation rule for profile creation	I shall be able to have configurable/customizable estimation rules for profile creation.	US-11539 I shall be able to have configurable/customizable estimation rules for profile creation.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11008	US-11540	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Profile creation rule	I shall be able to exclude the 0 usages for profile creation.	US-11540 I shall be able to exclude the 0 usages for profile creation.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11009	US-11541	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Profile creation rule	I shall be able to exclude known outage time periods from usage factor calculation	US-11541 I shall be able to exclude known outage time periods from usage factor calculation	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11010	US-11542	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Flexible estimation rule for profile creation	I shall have the ability to establish specific thresholds or boundaries for estimation on specific accounts by meter/customer, group, tariff/rate, or energy provider.	US-11542 I shall have the ability to establish specific thresholds or boundaries for estimation on specific accounts by meter/customer, group, tariff/rate, or energy provider.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11011	US-11543	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Create hourly load shape	I shall have the ability to calculate hourly load shape for each customer based on actual meter read data or estimated meter read data	US-11543 I shall have the ability to calculate hourly load shape for each customer based on actual meter read data or estimated meter read data	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-11012	US-11544	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Aggregate interval data	I shall have the ability to aggregate the interval read data (5 minutes or 15 minutes) into hourly interval using profile shape.	US-11544 I shall have the ability to aggregate the interval read data (5 minutes or 15 minutes) into hourly interval using profile shape.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-11013	US-11545	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Distribute monthly index read	I shall have the ability to distribute the monthly index read data into hourly interval using load profile.	US-11545 I shall have the ability to distribute the monthly index read data into hourly interval using load profile.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-11014	US-11546	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Load profile creation rule	I shall have the ability to use the entire segmentation population to create a load profile for a rate class.	US-11546 I shall have the ability to use the entire segmentation population to create a load profile for a rate class.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11015	US-11547	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Creation rule for rate class profile	I shall have the ability to generate a rate class profile by the following parameters: Season, Day type (weekday, weekend, holiday, etc.)	US-11547 I shall have the ability to generate a rate class profile by the following parameters: Season, Day type (weekday, weekend, holiday, etc.)	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11016	US-11548	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Assignment of default profile	I shall be able to assign a custom or default profile to a new segment (including the ability to use existing rate class profile as a proxy)	US-11548 I shall be able to assign a custom or default profile to a new segment (including the ability to use existing rate class profile as a proxy)	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11017	US-11549	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Load profile creation rule	I shall be able to generate a load profile according to Owner defined frequencies (e.g. once a year, monthly, etc.)	US-11549 I shall be able to generate a load profile according to Owner defined frequencies (e.g. once a year, monthly, etc.)	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11018	US-11550	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Load profile creation rule	I shall be able to generate weather sensitive load profiles using normalized weather data	US-11550 I shall be able to generate weather sensitive load profiles using normalized weather data	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11019	US-11551	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Assign meter to load profile	I shall be able to assign meters to a load profile based on rate	US-11551 I shall be able to assign meters to a load profile based on rate	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11020	US-11552	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Date for assigning meter to load profile	I shall be able to assign meters to a past, current, and future load profile using start and end dates.	US-11552 I shall be able to assign meters to a past, current, and future load profile using start and end dates.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11022	US-11553	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Estimation rule	I shall have the ability to use load profiles data to estimate data when actual data is not available.	US-11553 I shall have the ability to use load profiles data to estimate data when actual data is not available.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11022	US-11554	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Estimation rule	I shall have the ability to use weather data and a scaling factor (that adjusts the load profile closely to a customer's historical usage) to estimate data when actual data is not available.	US-11554 I shall have the ability to use weather data and a scaling factor (that adjusts the load profile closely to a customer's historical usage) to estimate data when actual data is not available.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11023	US-11555	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Usage factor calculation	I shall be able to calculate (freq) usage factor for each interval hour on each active customer account *Usage factors are calculated each month. Confirm the frequency of UF	US-11555 I shall be able to calculate (freq) usage factor for each interval hour on each active customer account *Usage factors are calculated each month. Confirm the frequency of UF	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11024	US-11556	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Create rate revenue class profile	I shall have the ability to calculate rate revenue class profile(s)	US-11556 I shall have the ability to calculate rate revenue class profile(s)	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11025	US-11557	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Load profile creation	I shall be able to generate load profiles for each rate and rate revenue class combination by the combination of season and date type.(i.e., Winter - Weekday, Winter - Weekend/Holiday, Summer - Weekday, Summer - Weekend/Holiday, etc)	US-11557 I shall be able to generate load profiles for each rate and rate revenue class combination by the combination of season and date type.(i.e., Winter - Weekday, Winter - Weekend/Holiday, Summer - Weekday, Summer - Weekend/Holiday, etc)	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11026	US-11558	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Share rate class load profile with suppliers	I shall be able to make the results of the rate class load profile available to be sent to suppliers.	US-11558 I shall be able to make the results of the rate class load profile available to be sent to suppliers.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11027	US-11559	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Rate revenue class exclusion rule	I shall have the ability to exclude accounts, meters, service points, and/or channels from the rate revenue class profile generation segmentation by meter number.	US-11559 I shall have the ability to exclude accounts, meters, service points, and/or channels from the rate revenue class profile generation segmentation by meter number.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11028	US-11560	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Usage calculation rule	I shall have the ability to run ad-hoc usage calculations based on an input of a service point and date range.	US-11560 I shall have the ability to run ad-hoc usage calculations based on an input of a service point and date range.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11028	US-11561	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Profile creation rule	I shall be able to use the service point's associated rate revenue class profile, usage factor, and appropriate weather data(actual or forecasted)	US-11561 I shall be able to use the service point's associated rate revenue class profile, usage factor, and appropriate weather data(actual or forecasted)	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11029	US-11562	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Rendering profile genration to settlement	I shall be able to make the results of profile generation available for use in the Settlement process	US-11562 I shall be able to make the results of profile generation available for use in the Settlement process	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11032	US-11563	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Use of effective date in forecast aggregation	I shall be able to utilize effective dates of account attributes (e.g., capacity tags, suppliers, rate, etc.) when performing forecast aggregations	US-11563 I shall be able to utilize effective dates of account attributes (e.g., capacity tags, suppliers, rate, etc.) when performing forecast aggregations	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11033	US-11564	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Sharing capacity tag data in ISO-NE format	I shall be able to create and transfer a file in a ISO-NE specified format containing forecasted capacity tags aggregated to short name that results from the forecasted capacity aggregation	US-11564 I shall be able to create and transfer a file in a ISO-NE specified format containing forecasted capacity tags aggregated to short name that results from the forecasted capacity aggregation	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11034	US-11565	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Use of loss factor in forecasting	I shall be able to apply loss factor(s) to interval kWh data for all accounts by loss class for forecasting	US-11565 I shall be able to apply loss factor(s) to interval kWh data for all accounts by loss class for forecasting	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11035	US-11566	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Generating ICAP forecast daily within define time	I shall be able to provide ICAP forecast with aggregated capacity tags by supplier short name for the period XX to XX on daily basis before 1 PM to ISO-NE.	US-11566 I shall be able to provide ICAP forecast with aggregated capacity tags by supplier short name for the period XX to XX on daily basis before 1 PM to ISO-NE.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11036	US-11567	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	ICAP forecast generation rule	I shall be able to utilize loss factor, reconciliation factor ,scaling factor added to tag value prior to ICAP forecast submission	US-11567 I shall be able to utilize loss factor, reconciliation factor ,scaling factor added to tag value prior to ICAP forecast submission	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-11037	US-11568	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Calculation of UFE	I shall be able to calculate Unaccounted for Energy (UFE)	US-11568 I shall be able to calculate Unaccounted for Energy (UFE)	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-11040	US-11569	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Forecast calculation rule	I shall be able to calculate forecast based on estimated hourly load for the period 2 days from now, 5 days out. (T+2 to T+7) using profiles, weather data, and usage factors for each account. The outlook period should be configurable.	US-11569 I shall be able to calculate forecast based on estimated hourly load for the period 2 days from now, 5 days out. (T+2 to T+7) using profiles, weather data, and usage factors for each account. The outlook period should be configurable.	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-11041	US-11570	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Reporting look ahead forecast	I shall be able to generate the "Forecast Five Day Look Ahead" Report each time a forecast is generated for a configurable date range (default date range = T to T+4).	US-11570 I shall be able to generate the "Forecast Five Day Look Ahead" Report each time a forecast is generated for a configurable date range (default date range = T to T+4).	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-11042	US-11571	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Retaining forecast files	I shall be able to store approved forecast files for at least one year.	US-11571 I shall be able to store approved forecast files for at least one year.	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-11043	US-11572	Profiling & Forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Retaining forecast files	I shall be able to store all version of profile and forecast data	US-11572 I shall be able to store all version of profile and forecast data	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-08001	US-08573	Metering- Advanced outage system support	RIEMTR Integrations	Event and alarm management	Data collection	Ping request response	I shall be able to have the ability to request to AMI Head End and receive a response after pinging a single meter with in 30 seconds with a 95% accuracy.	US-08573 I shall be able to have the ability to request to AMI Head End and receive a response after pinging a single meter with in 30 seconds with a 95% accuracy.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-08002	US-08574	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Power status request	I shall be able to have the ability to ping a list of AMI meters to determine power status	US-08574 I shall be able to have the ability to ping a list of AMI meters to determine power status	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08003	US-08575	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Manual status ping	I shall be able to have the ability to manually ping a current list of single outages from OMS as a batch	US-08575 I shall be able to have the ability to manually ping a current list of single outages from OMS as a batch	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08003	US-08576	Metering- Advanced outage system support	RIEMTR Integrations	Business analytics and reporting	Outage collection, validation, management & modification	View ping outage status results	I shall be able to have the ability to view the ping outage status results.	US-08576 I shall be able to have the ability to view the ping outage status results.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-08006	US-08577	Metering- Advanced outage system support	RIEMTR Integrations	Business analytics and reporting	Outage collection, validation, management & modification	Determination of correct ping method	I shall be able to have the ability to identify if a meter is AMI or AMR in order to determine the correct method to ping	US-08577 I shall be able to have the ability to identify if a meter is AMI or AMR in order to determine the correct method to ping	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-08007	US-08578	Metering- Advanced outage system support	RIEMTR Integrations	Meter command operations	Command request management	Individual ping request configuration	I shall be able to have ability to configure the number of individual Ping requests submitted to the network for processing	US-08578 I shall be able to have ability to configure the number of individual Ping requests submitted to the network for processing	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6
REQ-08008	US-08579	Metering- Advanced outage system support	RIEMTR Integrations	Meter command operations	Command request management	Pinging meters	I shall be able to have the ability to ping a meter by meter number, OMS Event ID.	US-08579 I shall be able to have the ability to ping a meter by meter number, OMS Event ID.	PI6	10/2/23	12/15/23	3/4. MDMS+VEE	6

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REQ-08009	US-08580	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Meter last communication storage	I shall be able to have the ability to store last gasp and power-up data from AMI meters with date and time stamp.	US-08580 I shall be able to have the ability to store last gasp and power-up data from AMI meters with date and time stamp.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08011	US-08581	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Last gasps filter	I shall be able to have the ability to filter out last gasps of the AMI meters.	US-08581 I shall be able to have the ability to filter out last gasps of the AMI meters.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08012	US-08582	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Outage type identification	I shall be able to have the ability to run the Transformer, Fuse, and Circuit Analysis function from the ping results to identify if it is a nested outage or a phantom outage.	US-08582 I shall be able to have the ability to run the Transformer, Fuse, and Circuit Analysis function from the ping results to identify if it is a nested outage or a phantom outage.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08013	US-08583	Metering- Advanced outage system support	RIEMTR Integrations	Business analytics and reporting	Outage collection, validation, management & modification	OMS outage preview report	I shall be able to have the ability to create the OMS Outage Preview report from the meter read , alert and ping response data from AMI.	US-08583 I shall be able to have the ability to create the OMS Outage Preview report from the meter read , alert and ping response data from AMI.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-08014	US-08584	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Event modification	I shall be able to have the ability to escalate or cancel a event based on ping status.	US-08584 I shall be able to have the ability to escalate or cancel a event based on ping status.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08015	US-08585	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Determination of meter outages	I shall be able to have the ability to ping a random sub set of meters attached to device and use the results to determine if the device is experiencing an outage.	US-08585 I shall be able to have the ability to ping a random sub set of meters attached to device and use the results to determine if the device is experiencing an outage.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08016	US-08586	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	OMS event restoration time updation	I shall be able to have the ability to update OMS Event Restoration Time(s) with calculated Restoration time(s) using the AMI Power Restore Alarm Data from MDMS.	US-08586 I shall be able to have the ability to update OMS Event Restoration Time(s) with calculated Restoration time(s) using the AMI Power Restore Alarm Data from MDMS.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08017	US-08587	Metering- Advanced outage system support	RIEMTR Integrations	Event and alarm management	Data collection	Power quality data collect & store	I shall be able to collect and store meter power quality data (number of power outages, voltage dips, sags, etc.) received from AMI Head End.	US-08587 I shall be able to collect and store meter power quality data (number of power outages, voltage dips, sags, etc.) received from AMI Head End.	PI4	4/3/23	6/23/23	3/4. AMI CC	4
REQ-08018	US-08588	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Planned/unplanned outage identification	I shall be able to identify scheduled Power Outage versus an unplanned outage from ping data.	US-08588 I shall be able to identify scheduled Power Outage versus an unplanned outage from ping data.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08019	US-08589	Metering- Advanced outage system support	RIEMTR Integrations	Business analytics and reporting	Revenue protection	Outage event calls prevention	I shall be able to have ability to prevent the processing of outage event calls for customers that have been shut-off for non payment.	US-08589 I shall be able to have ability to prevent the processing of outage event calls for customers that have been shut-off for non payment.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-08020	US-08590	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Outage status validation	I shall be able to have ability to ping neighbour meters on the mesh for additional validation of outage status and extent of the outage.	US-08590 I shall be able to have ability to ping neighbour meters on the mesh for additional validation of outage status and extent of the outage.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08021	US-08591	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Planned outage information to customers	I shall be able to have the ability to collect , process and send outage events and restoration information accurately to customers in a proactive and faster manner for planned outages.	US-08591 I shall be able to have the ability to collect , process and send outage events and restoration information accurately to customers in a proactive and faster manner for planned outages.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-08021	US-08592	Metering- Advanced outage system support	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Unplanned outage information to customers	I shall be able to have the ability to collect , process and send outage events and restoration information accurately to customers in a proactive and faster manner for unplanned outages.	US-08592 I shall be able to have the ability to collect , process and send outage events and restoration information accurately to customers in a proactive and faster manner for unplanned outages.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-16001	US-16593	Planning forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Business & Demand planning-Internal sources data	I shall be able to get the data from various internal sources to enable multi-year forecasting for business planning and demand planning. Internal: - 20 years' of historical usage data from CSS	US-16593 I shall be able to get the data from various internal sources to enable multi-year forecasting for business planning and demand planning. Internal: - 20 years' of historical usage data from CSS	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-16001	US-16594	Planning forecasting	RIEMTR Load Profiling	Business analytics and reporting	Settlement reports	Business & Demand planning-External sources data	I shall be able to get the data from various external sources to enable multi-year forecasting for business planning and demand planning. External: - Factors for Heating, Cooling, Appliances etc. - Weather data - Economic data (Moody's) - Generation data(solar, DR) - DER data, EV data	US-16594 I shall be able to get the data from various external sources to enable multi-year forecasting for business planning and demand planning. External: - Factors for Heating, Cooling, Appliances etc. - Weather data - Economic data (Moody's) - Generation data(solar, DR) - DER data, EV data	PI1	8/29/22	10/21/22	5. Load Profiling & Forecasting	1
REQ-16002	US-16595	Planning forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Regression model creation	I shall be able to perform planning forecasting by creating regression model for each rate class	US-16595 I shall be able to perform planning forecasting by creating regression model for each rate class	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-16003	US-16596	Planning forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Monthly aggregated forecast creation	I shall be able to perform planning forecasting by creating monthly aggregated forecast for each rate class	US-16596 I shall be able to perform planning forecasting by creating monthly aggregated forecast for each rate class	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-16004	US-16597	Planning forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Revenue forecast generation	I shall be able to generate revenue forecast as part of planning forecast	US-16597 I shall be able to generate revenue forecast as part of planning forecast	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-16004	US-16598	Planning forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Demand forecast generation	I shall be able to generate demand forecast as part of planning forecast	US-16598 I shall be able to generate demand forecast as part of planning forecast	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-16004	US-16599	Planning forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Customer count forecast generation	I shall be able to generate customer count forecast as part of planning forecast	US-16599 I shall be able to generate customer count forecast as part of planning forecast	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-16005	US-16600	Planning forecasting	RIEMTR Load Profiling	Profiling, Forecasting and Settlement	Load Profiling & Forecasting	Need basis reforecast	I shall be able to reforecast on a need basis when there is expected change in forecast such as, new customer addition, large usage change, etc.	US-16600 I shall be able to reforecast on a need basis when there is expected change in forecast such as, new customer addition, large usage change, etc.	PI4	4/3/23	6/23/23	5. Load Profiling & Forecasting	4
REQ-06025	US-06601	Metering - Customer Services	RIEMTR Integrations	Service orders/Exception/ Customer services handling	Performance metrics	AMI related calls handling	I shall be able to view number of unique AMI-related calls in RI's call center; AMI Service Level per call center	US-06601 I shall be able to view number of unique AMI-related calls in RI's call center; AMI Service Level per call center	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06027	US-06602	Metering - Customer Services	RIEMTR Integrations	Service orders/Exception/ Customer services handling	Performance metrics	CSS order & flags view	I shall be able to view total number of CSS Orders (Connect, Disconnect, Cut-In, Cut-Out) and any associated flags with Date and Time Stamps.	US-06602 I shall be able to view total number of CSS Orders (Connect, Disconnect, Cut-In, Cut-Out) and any associated flags with Date and Time Stamps.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06029	US-06603	Metering - Customer Services	RIEMTR Integrations	Service orders/Exception/ Customer services handling	Performance metrics	Age of AMI complaints	I shall be able to view the age of all AMI-related complaints pending in days.	US-06603 I shall be able to view the age of all AMI-related complaints pending in days.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06029	US-06604	Metering - Customer Services	RIEMTR Integrations	Service orders/Exception/ Customer services handling	Performance metrics	Age of AMI complaints	I shall be able to view the age in days of all AMI Meter + High Bill Miscellaneous workflow managements	US-06604 I shall be able to view the age in days of all AMI Meter + High Bill Miscellaneous workflow managements	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06039	US-06605	Metering - Customer Services	RIEMTR Integrations	Business analytics and reporting	Performance metrics	Processing time meterics	I shall be able to provide average, shortest and longest processing time.	US-06605 I shall be able to provide average, shortest and longest processing time.	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06039	US-06606	Metering - Customer Services	RIEMTR Integrations	Business analytics and reporting	Performance metrics	Processing time meterics	I shall be able to provide average, shortest and longest processing time. Calculate processing time from:	US-06606 I shall be able to provide average, shortest and longest processing time. Calculate processing time from:	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-06053	US-06607	Metering - Customer Services	RIEMTR Integrations	Business analytics and reporting	Performance metrics	Disconnected AMI meters	I shall be able to view the total count of AMI Meters that have been disconnected for various reasons i.e. manually blocked, cut at the poll or remotely blocked (open switch).	US-06607 I shall be able to view the total count of AMI Meters that have been disconnected for various reasons i.e. manually blocked, cut at the poll or remotely blocked (open switch).	PI7	12/18/23	3/22/24	3/4. MDMS+VEE	7
REQ-09001	US-09608	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Business analytics and reporting	Outage collection, validation, management & modification	Interface with AMI HE	I shall be able to interface with AMI HE to view latest meter data for display and viewing within power flow applications.	US-09608 I shall be able to interface with AMI HE to view latest meter data for display and viewing within power flow applications.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-09001	US-09609	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Power up/down near real time stream	I shall be able to stream power up/down and voltage sag/swell to ADMS near real time.	US-09609 I shall be able to stream power up/down and voltage sag/swell to ADMS near real time.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09002	US-09610	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Business analytics and reporting	Outage collection, validation, management & modification	Display for standard electrical values	I shall be able to provide a display for standard values (like Amps, KW, voltage). KW values can be either positive or negative.	US-09610 I shall be able to provide a display for standard values (like Amps, KW, voltage). KW values can be either positive or negative.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-09003	US-09611	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Business analytics and reporting	Outage collection, validation, management & modification	Display DER outputs	I shall be able to quickly and easily collect and display dispatched vs actual (metered) DER outputs via AMI HE on a UI.	US-09611 I shall be able to quickly and easily collect and display dispatched vs actual (metered) DER outputs via AMI HE on a UI.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-09004	US-09612	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Electrical values & pings collection	I shall be able to request AMI Head End system to collect meter voltages, kw, and amps, as well as pings in near Realtime to support advance apps like VVO (volt-var-optimization), CVR (conservation of voltage reduction) as required.	US-09612 I shall be able to request AMI Head End system to collect meter voltages, kw, and amps, as well as pings in near Realtime to support advance apps like VVO (volt-var-optimization), CVR (conservation of voltage reduction) as required.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09007	US-09613	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and AMI HE Integration	Request & receive outage data	I shall be able to jointly developed interface that enables ADMS to request and/or receive meter outage data from the AMI Head End system.	US-09613 I shall be able to jointly developed interface that enables ADMS to request and/or receive meter outage data from the AMI Head End system.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09008	US-09614	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and AMI HE Integration	Send AMI outage messages	I shall be able to have a jointly developed interface that allows ADMS to throttle the number of AMI outage messages sent to ADMS so as to not overrun the ADMS receipt capability.	US-09614 I shall be able to have a jointly developed interface that allows ADMS to throttle the number of AMI outage messages sent to ADMS so as to not overrun the ADMS receipt capability.	PI6	10/2/23	12/15/23	3/4. AMI CC	6

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REQ-09008	US-09615	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and AMI HE Integration	Outage messages handling	I shall be able to support thousands of outage messages per minute before throttling would be required.	US-09615 I shall be able to support thousands of outage messages per minute before throttling would be required.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09009	US-09616	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and AMI HE Integration	Meter ping for outage & health related information	I shall be able to have a jointly developed interface such that ADMS shall have the ability to ping any single meter or group of meters to verify outage status, heartbeat and network health information.	US-09616 I shall be able to have a jointly developed interface such that ADMS shall have the ability to ping any single meter or group of meters to verify outage status, heartbeat and network health information.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09010	US-09617	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and AMI HE Integration	Ping request initiation	I shall be able to have a jointly developed interface such that the ADMS shall be capable of initiating a request to ping a meter/group of meters to verify that power has been restored.	US-09617 I shall be able to have a jointly developed interface such that the ADMS shall be capable of initiating a request to ping a meter/group of meters to verify that power has been restored.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09011	US-09618	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and AMI HE Integration	AMI detected Power Outage Notification	I shall be able to have the ability to receive and store AMI detected PONs(Power Outage Notification) from AMI Head End system	US-09618 I shall be able to have the ability to receive and store AMI detected PONs(Power Outage Notification) from AMI Head End system	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09011	US-09619	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and AMI HE Integration	AMI detected Power Restore Notification	I shall be able to have the ability to receive and store AMI detected PRNs (Power Restore Notification) from AMI Head End system	US-09619 I shall be able to have the ability to receive and store AMI detected PRNs (Power Restore Notification) from AMI Head End system	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09016	US-09620	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	AMI data usage	I shall be able to have ability to use AMI data for state estimation, powerflow, FLISR, and VVC.	US-09620 I shall be able to have ability to use AMI data for state estimation, powerflow, FLISR, and VVC.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09017	US-09621	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Feeder voltage determination	I shall be able to have the ability to use AMI-derived voltage information for determining feeder voltages.	US-09621 I shall be able to have the ability to use AMI-derived voltage information for determining feeder voltages.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09018	US-09622	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Low voltage line determination	I shall be able to have the ability to use AMI-derived voltage information for determining voltages on low voltage lines.	US-09622 I shall be able to have the ability to use AMI-derived voltage information for determining voltages on low voltage lines.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09019	US-09623	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Voltage information collection & storage	I shall be able to support the ability to collect and store voltage information from C&I AMI meters.	US-09623 I shall be able to support the ability to collect and store voltage information from C&I AMI meters.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09020	US-09624	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Load information collection & storage	I shall be able to support the ability to collect and store load information from C&I AMI meters.	US-09624 I shall be able to support the ability to collect and store load information from C&I AMI meters.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09023	US-09625	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Voltage data storage	I shall be able to store Voltage data which includes minimum and maximum voltage occurring within the average time window.	US-09625 I shall be able to store Voltage data which includes minimum and maximum voltage occurring within the average time window.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09024	US-09626	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Voltage data transaction	The AMI HE shall provide the following voltage data to ADMS: voltage data for single phase and 3 phase meter. i. Residential 2S meter --- 3 voltages: Maximum, Minimum, and Average Voltage ii. 12S meter 6 voltages: Maximum, Minimum, and Average Voltage for both phases iii. Polyphase meter (depends on the form) up to 9 voltages: Maximum, Minimum, and Average Voltage for all three phases	US-09626 The AMI HE shall provide the following voltage data to ADMS: voltage data for single phase and 3 phase meter. i. Residential 2S meter --- 3 voltages: Maximum, Minimum, and Average Voltage ii. 12S meter 6 voltages: Maximum, Minimum, and Average Voltage for both phases iii. Polyphase meter (depends on the form) up to 9 voltages: Maximum, Minimum, and Average Voltage for all three phases	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09025	US-09627	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	3 phase average voltage data support	I shall be able to support Avg voltage data for all 3 phases of a 3 phase meter individually.	US-09627 I shall be able to support Avg voltage data for all 3 phases of a 3 phase meter individually.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09026	US-09628	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Voltage information storage	I shall be able to store voltage info as accurate as the native voltage data in the meter.	US-09628 I shall be able to store voltage info as accurate as the native voltage data in the meter.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09029	US-09629	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	Outage collection, validation, management & modification	Initiate RCD transactions	I shall be able to have the ability to initiate RCD transactions to MDMS for exception scenarios like major fire incidents.	US-09629 I shall be able to have the ability to initiate RCD transactions to MDMS for exception scenarios like major fire incidents.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09028	US-09630	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and MDMS integration	Bellweather meter data support	I shall be able to support data for all bellweather meters reporting every 5 minutes.	US-09630 I shall be able to support data for all bellweather meters reporting every 5 minutes.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-09028	US-09631	Metering - Grid Service Services Support(ADMS)	RIEMTR Integrations	Outage management/support	ADMS and MDMS integration	Residentail/commerical meter data support	I shall be able to support data for all residential/commercial meters in every 5 minutes.	US-09631 I shall be able to support data for all residential/commercial meters in every 5 minutes.	PI6	10/2/23	12/15/23	3/4. AMI CC	6
REQ-12002	US-12632	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Accoutwise tag calculation	I shall be able to calculate a tag for every account which had interval data during at least one peak period on at least one meter (includes metered and unmetered accounts) unless the account is on the exclusion list.	US-12632 I shall be able to calculate a tag for every account which had interval data during at least one peak period on at least one meter (includes metered and unmetered accounts) unless the account is on the exclusion	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12003	US-12633	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Tag calculation based on peak periods	I shall be able to calculate tags based on an average of the peak periods provided.	US-12633 I shall be able to calculate tags based on an average of the peak periods provided.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12004	US-12634	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	ICAP tag calculation	I shall be able to have the ability to receive weather data to calculate ICAP tag	US-12634 I shall be able to have the ability to receive weather data to calculate ICAP tag	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12006	US-12635	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Rate class defaults calculation-Median default calculation	I shall be able to calculate two sets of defaults for each rate class (median)of all tags for the rate class.	US-12635 I shall be able to calculate two sets of defaults for each rate class (median)of all tags for the rate class.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12006	US-12636	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Rate class defaults calculation-Average default calculation	I shall be able to calculate two sets of defaults for each rate class (average) of all tags for the rate class.	US-12636 I shall be able to calculate two sets of defaults for each rate class (average) of all tags for the rate class.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12007	US-12637	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Rate class default tag creation	I shall be able to calculate a default tag for each rate class.	US-12637 I shall be able to calculate a default tag for each rate class.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12009	US-12638	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Active account default tag assignment	I shall be able to assign a default tag to all active accounts with no tag value by rate class prior to ICAP Forecast.	US-12638 I shall be able to assign a default tag to all active accounts with no tag value by rate class prior to ICAP Forecast.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12010	US-12639	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	ICAP Estimate contribution	I shall be able to estimate the customer's contribution to ICAP either their actual peak hour use, if interval data are available, or load profiles	US-12639 I shall be able to estimate the customer's contribution to ICAP either their actual peak hour use, if interval data are available, or load profiles	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12013	US-12640	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Tag value edit	I shall be able to provide a capability to edit tag values after they are set to approved.	US-12640 I shall be able to provide a capability to edit tag values after they are set to approved.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12013	US-12641	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Non adjustment of target	I shall not be able to make adjustment to the target for the tagset once tag values are approved	US-12641 I shall not be able to make adjustment to the target for the tagset once tag values are approved	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12015	US-12642	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Account level tag calculation	I shall be able to have the ability to calculate the tags at the account level (not at a meter level).	US-12642 I shall be able to have the ability to calculate the tags at the account level (not at a meter level).	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-12017	US-12643	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Annual ICAP tags transaction	I shall be able to send annual ICAP tags to CSS.	US-12643 I shall be able to send annual ICAP tags to CSS.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-12018	US-12644	Settlement tag creation	RIEMTR MDMS	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	New tag value transaction	I shall be able to send CSS a new tag value any time the tag changes.	US-12644 I shall be able to send CSS a new tag value any time the tag changes.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-14001	US-14645	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	OSI PI zonal load collection	I shall be able to receive zonal load values from OSI PI data for settlement calculation. This will be the initial version of the zonal load values.	US-14645 I shall be able to receive zonal load values from OSI PI data for settlement calculation. This will be the initial version of the zonal load values.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-14002	US-14646	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	MV90 zonal load collection	I shall be able to receive zonal load values from MV90 via MDMS for settlement calculation. The MV90 zonal load values will have higher precedence than OSI PI zonal load values for further calculations.	US-14646 I shall be able to receive zonal load values from MV90 via MDMS for settlement calculation. The MV90 zonal load values will have higher precedence than OSI PI zonal load values for further calculations.	PI2	10/24/22	1/6/23	5. Load Profiling & Forecasting	2
REQ-14004	US-14647	Wholesale settlement	RIEMTR Wholesale Settlement	Profiling, Forecasting and Settlement	Settlement collection, correction & calculation	Read validation check	I shall be able to have a validation checks on the meter reads e.g. maximum output check of plants.	US-14647 I shall be able to have a validation checks on the meter reads e.g. maximum output check of plants.	PI3	1/9/23	3/31/23	5. Load Profiling & Forecasting	3
REQ-02001	US-02648	Metering AMI	RIEMTR AMI HE	PO to Inventory Management	Meter testing	Execute meter testing for AMI Electric	I shall be able to receive information related to Electric AMI meters & auxillary devices (network comms device files, CT PT details) in meter testing system	US-02648 I shall be able to receive information related to Electric AMI meters & auxillary devices (network comms device files, CT PT details) in meter testing system	PI3	1/9/23	3/31/23	6. Meter Test	3

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REQ-02001	US-02649	Metering AMI	RIEMTR AMI HE	PO to Inventory Management	Meter testing	Execute meter testing for AMI gas	I shall be able to receive information related to GAS AMI meters & auxillary devices (meter radio terminal details) in meter testing system	US-02649 I shall be able to receive information related to GAS AMI meters & auxillary devices (meter radio terminal details) in meter testing system	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02002	US-02650	Metering AMI	RIEMTR AMI HE	PO to Inventory Management	Meter testing	Execute meter testing for AMI Electric	I shall be able to send test results to asset & inventory management system	US-02650 I shall be able to send test results to asset & inventory management system	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02002	US-02651	Metering AMI	RIEMTR AMI HE	PO to Inventory Management	Meter testing	Execute meter testing for AMI gas	I shall be able to send test results to asset & inventory management system	US-02651 I shall be able to send test results to asset & inventory management system	PI3	1/9/23	3/31/23	6. Meter Test	3
REQ-02001	US-02652	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter testing	Electric Meter test infrastructure	I shall be ready with MV90 and AMR (Electric) Meter Testing Boards and software	US-02652 I shall be ready with MV90 and AMR (Electric) Meter Testing Boards and software	PI1	8/29/22	10/21/22	6. Meter Test	1
REQ-02001	US-02653	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter testing	Gas Meter test infrastructure	I shall be ready with MV90 and AMR (Gas) Meter Testing Boards and software	US-02653 I shall be ready with MV90 and AMR (Gas) Meter Testing Boards and software	PI1	8/29/22	10/21/22	6. Meter Test	1
REQ-02001	US-02654	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter testing	Electric Meter test infrastructure	I shall be ready with AMI (Electric) Meter Testing Boards and software	US-02654 I shall be ready with AMI (Electric) Meter Testing Boards and software	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-02001	US-02655	Asset & Inventory	RIEMTR Meter Testing	PO to Inventory Management	Meter testing	Gas Meter test infrastructure	I shall be ready with AMI (Gas) Meter Testing Boards and software	US-02655 I shall be ready with AMI (Gas) Meter Testing Boards and software	PI2	10/24/22	1/6/23	6. Meter Test	2
REQ-03030	US-03656	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Usage report on disconnected AMI meters	I shall be able to have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.	US-03656 I shall be able to have the ability to provide reports to identify meters reporting voltage/usage when the meter service switch is supposed to be in an open (disconnected) state.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-15013	US-15657	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Meter configuration	I shall be able to receive meter configuration details from MDMS	US-15657 I shall be able to receive meter configuration details from MDMS	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06014	US-06658	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Non communication reads	I shall be able to view the total amount of AMI meters that haven't communicated any reads through last 24 hours verses total amount of AMI meters.	US-06658 I shall be able to view the total amount of AMI meters that haven't communicated any reads through last 24 hours verses total amount of AMI meters.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06017	US-06659	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Detection of read for an uninstalled AMI meter	I shall be able to view the total count of AMI meters that have reported a read from Head end, but is not associated to a premise with an install status. This is calculated daily.	US-06659 I shall be able to view the total count of AMI meters that have reported a read from Head end, but is not associated to a premise with an install status. This is calculated daily.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06028	US-06660	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Capture wrong meter read	I shall be able to view the total amount of meters that have consumption for disconnected meter with date timestamp.	US-06660 I shall be able to view the total amount of meters that have consumption for disconnected meter with date timestamp.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06060	US-06661	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Mismatch meter identification	I shall be able to identify mismatched meter to transformer Only applicable for AMI meters.	US-06661 I shall be able to identify mismatched meter to transformer Only applicable for AMI meters.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06060	US-06662	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Usage of interval meter data	I shall be able to use interval meter data to fix meter-to-transformer topology Only applicable for AMI meters.	US-06662 I shall be able to use interval meter data to fix meter-to-transformer topology Only applicable for AMI meters.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-06065	US-06663	Metering AMI	RIEMTR AMI HE	Business analytics and reporting	Meter related reports	Meter temperature capture	I shall be able to view meter temperature monitoring and analysis Only applicable for AMI meters.	US-06663 I shall be able to view meter temperature monitoring and analysis Only applicable for AMI meters.	PI7	12/18/23	3/22/24	3/4. AMI CC	7
REQ-04035	US-04664	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Meter related reports	Estimated read view	I shall be able to view estimated reads with Auditing for a certain period of time.	US-04664 I shall be able to view estimated reads with Auditing for a certain period of time.	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-04045	US-04665	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Meter related reports	Audit trails log check	I shall be able to check audit trails and logs for all MDMS data request	US-04665 I shall be able to check audit trails and logs for all MDMS data request	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-04050	US-04666	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Meter related reports	Operations report check	I shall be able to check operation reports for many things including: daily 24 hour batch job processing run times/status, number/types of pended reads, changes made in syncing with CSS, accounts and their status on the monthly read 4 day window, ...)	US-04666 I shall be able to check operation reports for many things including: daily 24 hour batch job processing run times/status, number/types of pended reads, changes made in syncing with CSS, accounts and their status on the monthly read 4 day window, ...)	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-04080	US-04667	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Meter related reports	On Demand Read	I shall be ability to report on and display manually read meters	US-04667 I shall be ability to report on and display manually read meters	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-06011	US-06668	Metering - Meter Data Management	RIEMTR MDMS	Business analytics and reporting	Meter related reports	AMI meters installed report	I shall be able to report on the number of certified AMI meters installed (Certified Typically means x days of continuous reads received by MDMS)	US-06668 I shall be able to report on the number of certified AMI meters installed (Certified Typically means x days of continuous reads received by MDMS)	PI5	6/26/23	9/1/23	3/4. AMI CC	5
REQ-01003	US-01669	Metering AMI	RIEMTR AMI HE	General	Security	General Security	I shall be able to check the data is encrypted. Both at rest and at transit	US-01669 I shall be able to check the data is encrypted. Both at rest and at transit	PI5	6/26/23	9/1/23		5
REQ-01001	US-01670	Metering AMI	RIEMTR AMI HE	General	Security	General Security	I shall be able to login using SSO	US-01670 I shall be able to login using SSO	PI5	6/26/23	9/1/23		5
REQ-01002	US-01671	Metering AMI	RIEMTR AMI HE	General	Security	General Security	I shall have full read write access to all non-prod Databases (full CRUD access) as an internal PPL user	US-01671 I shall have full read write access to all non-prod Databases (full CRUD access) as an internal PPL user	PI5	6/26/23	9/1/23		5
REQ-01003	US-01672	Metering AMI	RIEMTR AMI HE	General	Security	General Security	I shall have full read access to all prod Databases as an internal PPL user	US-01672 I shall have full read access to all prod Databases as an internal PPL user	PI5	6/26/23	9/1/23		5
REQ-01003	US-01673	Metering AMR	RIEMTR AMR	General	Security	General Security	I shall be able to check the data is encrypted. Both at rest and at transit	US-01673 I shall be able to check the data is encrypted. Both at rest and at transit	PI5	6/26/23	9/1/23		5
REQ-01001	US-01674	Metering AMR	RIEMTR AMR	General	Security	General Security	I shall be able to login using SSO	US-01674 I shall be able to login using SSO	PI5	6/26/23	9/1/23		5
REQ-01002	US-01675	Metering AMR	RIEMTR AMR	General	Security	General Security	I shall have full read write access to all non-prod Databases (full CRUD access) as an internal PPL user	US-01675 I shall have full read write access to all non-prod Databases (full CRUD access) as an internal PPL user	PI5	6/26/23	9/1/23		5
REQ-01003	US-01676	Metering AMR	RIEMTR AMR	General	Security	General Security	I shall have full read access to all prod Databases as an internal PPL user	US-01676 I shall have full read access to all prod Databases as an internal PPL user	PI5	6/26/23	9/1/23		5
REQ-01003	US-01677	Metering-MV90	RIEMTR MV90 Electric - Gas	General	Security	General Security	I shall be able to check the data is encrypted. Both at rest and at transit	US-01677 I shall be able to check the data is encrypted. Both at rest and at transit	PI5	6/26/23	9/1/23		5
REQ-01001	US-01678	Metering-MV90	RIEMTR MV90 Electric - Gas	General	Security	General Security	I shall be able to login using SSO	US-01678 I shall be able to login using SSO	PI5	6/26/23	9/1/23		5
REQ-01002	US-01679	Metering-MV90	RIEMTR MV90 Electric - Gas	General	Security	General Security	I shall have full read write access to all non-prod Databases (full CRUD access) as an internal PPL user	US-01679 I shall have full read write access to all non-prod Databases (full CRUD access) as an internal PPL user	PI5	6/26/23	9/1/23		5
REQ-01003	US-01680	Metering-MV90	RIEMTR MV90 Electric - Gas	General	Security	General Security	I shall have full read access to all prod Databases as an internal PPL user	US-01680 I shall have full read access to all prod Databases as an internal PPL user	PI5	6/26/23	9/1/23		5

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RI Metering Program Implementation

Estimate Summary

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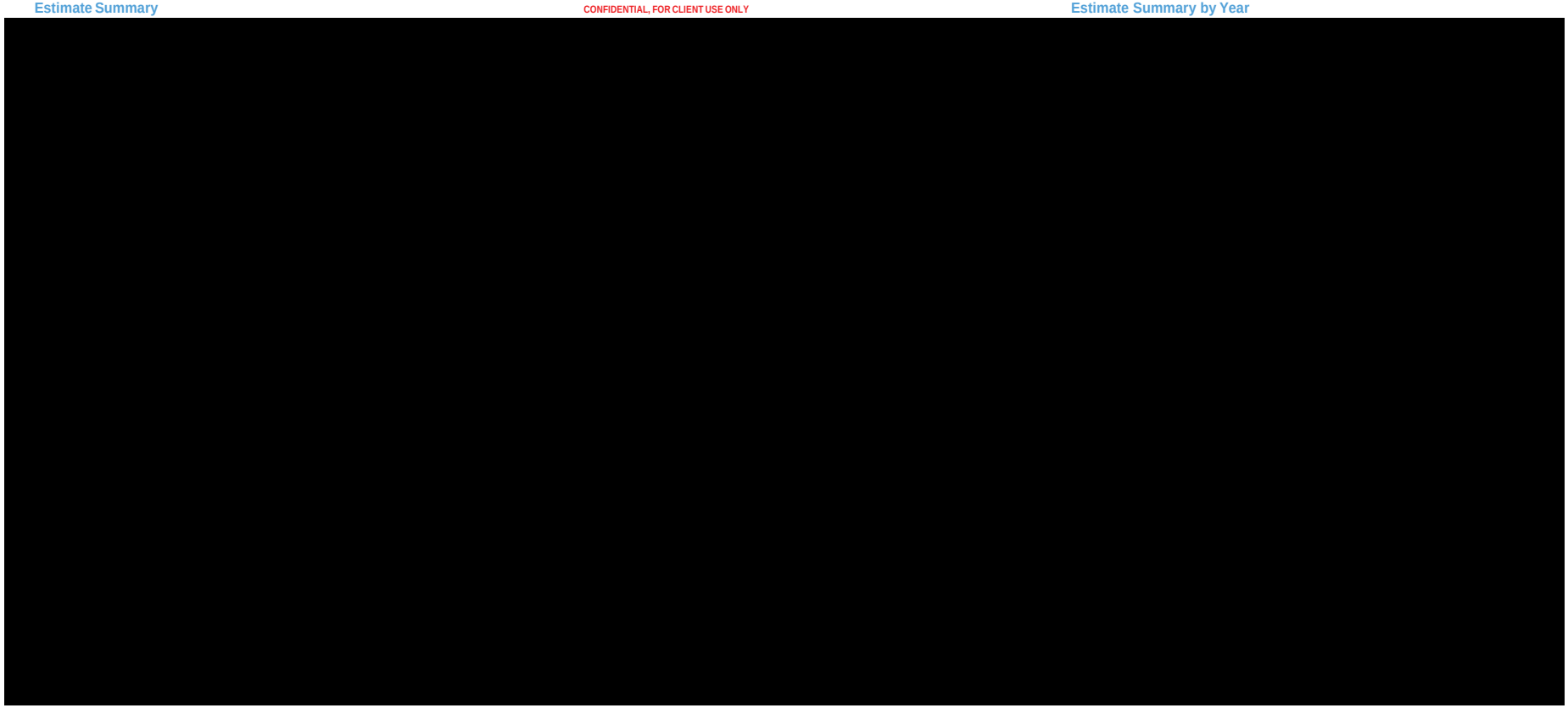
Estimate Summary by Year



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RI Metering Program Implementation

Effort Detail

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Start Date June 1, 2022
Duration 25 mos.

Core Assumptions		Notes
Direct Effort Coordination	[redacted]	This is the assumed level of administrative time not applied to direct work effort (i e.meetings, assisting other personnel, training). Ap
Direct Work Supervision	[redacted]	This is working level supervision and guidance of lower level resources. This is above and beyond the Business Transformation & Integ
Project Management	[redacted]	This is the percentage of total hours attributable to project management. This is includes of all project level organization, including ST
Change Management	[redacted]	This is the percentage of total, non-PM hours that is attributable to conducting IT change mangement efforts.
Training	[redacted]	This is the percentage of total hours to develop materials for knowledge transfer and training efforts.
Start Date	6/1/22	This is the assumed program start date.
Average Hours Per Month	[redacted]	This is the assumed average hours per month on the program.

AMI Program Hours		Total	TSA-Exit	AMF	Dur (Mo)	Start	Finish	Start (Mo)	Finish (Mo)	FTE
Planning & Backlog Grooming	PPL	2,000	2,000		2	6/1/22	7/31/22	1	2	5 8
	TCS	[redacted]	[redacted]							15.7
	L+G	0								0 0
	Other	0								0 0
Total Planning & Backlog Grooming		[redacted]	[redacted]	0						
Development Release 1-2	PPL	66,929	47,766	19,163	22	8/1/22	5/31/24	3	24	19.0
	TCS	[redacted]	[redacted]							40.5
	L+G	[redacted]	[redacted]	[redacted]						10.9
	Itron	[redacted]	[redacted]	0						0.7
	Clevest	[redacted]	[redacted]	0						1 0
	Hartigen	[redacted]	[redacted]	0						0 2
	Radian									0 0
	Other									0 0
PMO Release 1-2	PPL	8,031	5,732	2,300	24	6/1/22	5/31/24	1	24	2.1
	TCS	[redacted]	[redacted]							4 5
	L+G	[redacted]	[redacted]	[redacted]						1 2
	Itron	[redacted]	[redacted]	0						0.1
	Clevest	[redacted]	[redacted]	0						0.1
	Hartigen	[redacted]	[redacted]	0						0 0
	Radian	0	0	0						0 0
	Other	0	0	0						0 0
OCM Release 1-2	PPL	1,339	955	383	24	6/1/22	5/31/24	1	24	0 3
	TCS	[redacted]	[redacted]							0.7
	L+G	[redacted]	[redacted]	[redacted]						0 2
	Itron	[redacted]	[redacted]	0						0 0
	Clevest	[redacted]	[redacted]	0						0 0
	Hartigen	[redacted]	[redacted]	0						0 0
	Radian	0	0	0						0 0
	Other	0	0	0						0 0
Training Release 1-2	PPL	1,339	955	383	24	6/1/22	5/31/24	1	24	0 3
	TCS	[redacted]	[redacted]							0.7
	L+G	[redacted]	[redacted]	[redacted]						0 2
	Itron	[redacted]	[redacted]	0						0 0
	Clevest	[redacted]	[redacted]	0						0 0
	Hartigen	[redacted]	[redacted]	0						0 0
	Radian	0	0	0						0 0
	Other	0	0	0						0 0
Total Release 1-2		[redacted]	[redacted]	[redacted]						

Redacted

Development Release 3-6	PPL	15,621		15,621	19	6/1/24	12/31/25	25	43	5.1
	TCS	[redacted]		[redacted]						9 8
	L+G									3 9
	Itron	0		0						0 0
	Clevest	0		0						0 0
	Hartigen	0		0						0 0
	Radian	0		0						0 0
	Other	0		0						0 0
PMO Release 3-6	PPL	1,875		1,875	19	6/1/24	12/31/25	25	43	0 6
	TCS	[redacted]		[redacted]						1 2
	L+G									0 5
	Itron	0		0						0 0
	Clevest	0		0						0 0
	Hartigen	0		0						0 0
	Radian	0		0						0 0
	Other	0		0						0 0
OCM Release 3-6	PPL	312		312	19	6/1/24	12/31/25	25	43	0.1
	TCS	[redacted]		[redacted]						0 2
	L+G									0.1
	Itron	0		0						0 0
	Clevest	0		0						0 0
	Hartigen	0		0						0 0
	Radian	0		0						0 0
	Other	0		0						0 0
Training Release 3-6	PPL	312		312	19	6/1/24	12/31/25	25	43	0.1
	TCS	[redacted]		[redacted]						0 2
	L+G									0.1
	Itron	0		0						0 0
	Clevest	0		0						0 0
	Hartigen	0		0						0 0
	Radian	0		0						0 0
	Other	0		0						0 0
Total Release 3-6		[redacted]	0	[redacted]						

Redacted

AMI Program Summary Hours		Total	TSA-Exit	AMF
Total Planning & Backlog Grooming		[redacted]	0	[redacted]
AMI Program Implementation	PPL	97,757	57,408	40,349
	TCS	[redacted]	[redacted]	[redacted]
	L+G	[redacted]	[redacted]	[redacted]
	Itron	[redacted]	[redacted]	0
	Clevest	[redacted]	[redacted]	0
	Hartigen	[redacted]	[redacted]	0
	Radian	0	0	0
	Other	0	0	0
Total AMI Program Implementation		368,780	206,031	162,749

TSA-Exit Implementation				
	PPL		57,408	
	TCS		[redacted]	
	L+G		[redacted]	
	Itron		[redacted]	
	Clevest		[redacted]	
	Hartigen		[redacted]	
	Radian		0	
	Other		0	
Total TSA-Exit Implementation			[redacted]	

AMF Implementation				
	PPL			40,349
	TCS			[redacted]
	L+G			[redacted]
	Itron			0
	Clevest			0
	Hartigen			0
	Radian			0
	Other			0
Total AMF Implementation				[redacted]

Redacted

Estimate

Internal Blended Rate (Assumed)	[redacted]	
External Blended Rate (Assumed)		

		Total	TSA-Exit	AMF
AMI Pre-Planning	PPL	$153,840	$153,840	$0
	TCS	[redacted]	[redacted]	$0
Total AMI Pre-Planning		**$803,840**	**$803,840**	**$0**

AMI Program Implementation	PPL	$7,519,499	$4,415,849	$3,103,650
	TCS	[redacted]	[redacted]	[redacted]
	L+G			
	Itron			$0
	Clevest			$0
	Hartigen			$0
	Radian	$0	$0	$0
	Other	$0	$0	$0
Total AMI Program Implementation		**$39,856,981**	**$22,065,301**	**$17,791,680**

TSA-Exit Implementation	PPL		$4,415,849	
	TCS		[redacted]	
	L+G			
	Itron			
	Clevest			
	Hartigen			
	Radian		$0	
	Other		$0	
Total TSA-Exit Implementation			**$22,065,301**	

AMF Implementation	PPL			$3,103,650
	TCS			[redacted]
	L+G			
	Itron			$0
	Clevest			$0
	Hartigen			$0
	Radian			$0
	Other			$0
Total AMF Implementation				**$17,791,680**

Licensing & Hardware				
HeadEnd SaaS Subscription	L+G	[redacted]		[redacted]
MDMS Saas Subscription	L+G			
AMR Collection Licensing, One-Time	Clevest		[redacted]	
AMR Collection Licensing, Annual	Clevest			
AMR Collection Hardware	Clevest			
Wholesale Settlement SaaS Subscription	Hartigen			
Meter Testing Licensing & Hardware	Radian			
MV90 Licensing	Itron			
MetrixND Licensing	Itron			
	Other			
Total Licensing & Hardware		**$6,790,841**	**$2,890,841**	**$3,900,000**

Redacted

Business Case Inputs (Work In Progress)

IT Labor $ (Cap) - Empl+Staff Aug
Business Line Labor $ (Cap)
External Labor $ (Cap)
Hardware $ (Cap)
Software $ (Cap)
Other $ (Cap)
AFUSC/IDC Calculator

Labor $ (O&M)
Training $ (O&M)
Other $ (O&M)

SW Maint.
SaaS/Subscriptions
HW Maint.
Azure Costs
Labor/Other

	Percentage	Total	TSA-Exit	AMF
Scrum Master				
Project Coordinator				
Product Manager				
Product Analyst				
Architect				
Developer				
QA Analyst				
Design Lead/Designer				
Infrastructure Resources				
MSP Resources				
Cybersecurity Resources				
BI/Reporting Resources				
Other - Please Describe				
Total IT				

Business

Total IT & Business		97,757	57,408	40,349

Redacted

RI Metering Program Implementation
Detailed Design & Build Effort Estimate

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[redacted]

Redacted

Redacted

RI Metering Program Implementation

Testing Effort Estimate

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[redacted]

Redacted

RI Metering Program Implementation

Data Conversion Effort Estimate

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[redacted]

Business

Redacted

RI Metering Program Implementation

Licensing Notes

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Vendor	Product	Cloud/On-Prem	Set up/Infra Cost	Year1		Year 2		Year 3		Year 4		Total Cost	
				License Fee	Maintenance	License Fee	Maintenance	Fe License Fee	Maintenance	License Fee	Maintenance		
Clevest	Drive By-SW	On-prem		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	ROM from vendor
	Drive By-HW	NA	[redacted]		?		?		?		?	[redacted]	ROM from vendor
Hartigen	WS Settlement	SaaS	[redacted]	[redacted]		[redacted]		[redacted]		[redacted]		[redacted]	ROM from vendor-for PA
L+G	CC	SaaS		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]	from April draft
	MDMS,RS,Tag	SaaS		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]	from April draft
	Deployment					[redacted]						[redacted]	from April draft
Itron	MV90	On-prem		[redacted]	[redacted]		[redacted]		[redacted]		[redacted]	[redacted]	current PA
	Metrix ND											0	
Radian	Elec	On-prem			[redacted]		[redacted]		[redacted]		[redacted]	[redacted]	current PA
	Gas	On-prem			[redacted]		[redacted]		[redacted]		[redacted]	[redacted]	current PA

Assumptions:

1 #RI Electric meters [redacted]

2 #RI Gas meters: [redacted]

3

Assuming maintenanace fee is [redacted] of the perpetual license cost

Business Use

Redacted

Attachment 2 - Estimation Model - 20220525 BASELINE, Clevest, Page 12 of 14, Confidential for Client Use Only

AMI Program Implementation

Clevest Directional Estimate

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Item	Product Code	Product Description	Units	Price	Amount	Comments
Hardware						
Walk-by Meter Readers	MS3-CFG-13140	Mesa 3 7" Touch Screen Tablet	50	[redacted]	[redacted]	Windows 10 IP68 Ruggedized 7" Touch Screen Tablet 128 GB Internal Storage 2MP Front/8MP Rear Cameras integrated GNSS receiver & antenna Integrated 4G LTE Modem Integrated 1D/2D barcode scanner 8 Hour standard battery, A second battery can be added to extended the battery life to 15 hours of use for [redacted] **An Integrated AMR card** which can read both Wake-up and Bubble up ERTS from a short distance. Not meant for Drive-By Includes **SAP Ultralite license with Mobilink 17 Synchronization service** . Non AMR Card version is available for cheaper price if Walk By readers do not need to read AMR meters
	30,171	Office Dock for charging and Network connectivity	50	[redacted]	[redacted]	
	28,813	Platinum Complete Care 5 Year (new purchases only)	50	[redacted]	[redacted]	Platinum Coverage for 60 months total including first year
	FR2-USB-24L	Fastreader 2 - 57.6Kb max ANSI C12.18 protocol Optical Probe, USB 2.0 port, 24" COILED cord, Metal Head with LED Indicators, Universal model	50	[redacted]	[redacted]	
Drive-By Meter readers	SNS-VGB	FieldNet Drive-By Hardware with Easylink Workbook	20	[redacted]	[redacted]	Extended warranty pricing TBD, will update as soon as we have from the manufacturer
		Total Hardware costs			[redacted]	Not final Prices, Estimates for budgeting purposes only. Final prices and delivery estimates are determined ate time of ordering
Software Implementation						
FieldNet Enterprise License - Server			1	[redacted]	[redacted]	
LGE and KU Credit			1	[redacted]	[redacted]	Will be another operating company within LGE and KU database and will use same test and production environments
FieldNet Mobile Per Seat License			50	[redacted]	[redacted]	Includes Utlralite database with Synchronization service
FieldNet Drive-by Per seat			20	[redacted]	[redacted]	
Total license fee					[redacted]	
Professional services			1	[redacted]	[redacted]	Includes a new export and import to handle another meter reading import in Integrator format, User interface and functionality will be same as LGE and KU. Includes UAT and Implementation support. Any additional PPL functional changes will be estimated separately and will cost more
Total One time license and services fees- No hardware is included					[redacted]	Please see hardware tab for hardware pricing
Software Operation						
Annual Software Maintenance					[redacted]	Not final Prices, Estimates for budgeting purposes only
						Savings running in the same instance as LGE and KU over 5 years [redacted] . Savings will be higher if PPL interval costs for setting up another environment, contracting, training material development , testing

Business Use

Redacted

Attachment 2 - Estimation Model - 20220525 BASELINE, Estimate Inputs, Page 13 of 14, Confidential for Client Use Only

RI Metering Program Implementation

Estimate Model Inputs

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Attachment 2 - Estimation Model - 20220525 BASELINE, Requirement Transfer, Page 14 of 14, Confidential for Client Use Only

Total	TCS	PPL	L+G	Itron	Clevest	Hartigen	Other	TCS	PPL	L+G	Itron	Clevest	Hartigen	Other
[redacted]														

Business Use

Attachment 3 - RI Metering Implementation Schedule, Schedule Extract, Page 1 of 10, Confidential for Client Use Only

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Row #	WBS	Status	Name	Start	Finish	Duration	Predecessors	% Complete	% Planned	Remaining Time	Notes
1	1	Green	PLAN	Mon 5/23/22	Mon 9/19/22	83.75 days		69%	53%	39.75 days	
145	2	N/A	AGILE DEVELOPMENT RELEASE 1	Fri 8/26/22	Sun 10/1/23	264 days		0%	0%	264 days	
146	*2.1*	*N/A*	*Start Release 1*	*Fri 8/26/22*	*Fri 8/26/22*	*0 days*	*142,143*	*0%*	*0%*	*0 days*	
147	2.2	N/A	Development & Testing, Agile Cycles	Mon 8/29/22	Fri 9/1/23	245 days		0%	0%	245 days	
148	2.2.1	N/A	Program Increment 1	Mon 8/29/22	Fri 10/21/22	39 days		0%	0%	39 days	
149	2.2.1.1	N/A	Planning & Orientation Sprint 1.0	Mon 8/29/22	Fri 9/9/22	9 days	146	0%	0%	9 days	
150	2.2.1.2	N/A	Sprint 1.1	Mon 9/12/22	Fri 9/23/22	10 days	149	0%	0%	10 days	
151	2.2.1.3	N/A	Sprint 1.2	Mon 9/26/22	Fri 10/7/22	10 days	150	0%	0%	10 days	
152	2.2.1.4	N/A	Sprint 1.3	Mon 10/10/22	Fri 10/21/22	10 days	151	0%	0%	10 days	
153	2.2.2	N/A	Program Increment 2	Mon 10/24/22	Fri 1/6/23	40 days		0%	0%	40 days	
154	2.2.2.1	N/A	Innovation & Planning Sprint 2.0	Mon 10/24/22	Fri 11/4/22	10 days	152	0%	0%	10 days	
155	2.2.2.2	N/A	Sprint 2.1	Mon 11/7/22	Fri 11/18/22	10 days	154	0%	0%	10 days	
156	2.2.2.3	N/A	Sprint 2.2	Mon 11/28/22	Fri 12/9/22	10 days	155	0%	0%	10 days	
157	2.2.2.4	N/A	Sprint 2.3	Mon 12/12/22	Fri 1/6/23	10 days	156	0%	0%	10 days	
158	2.2.3	N/A	Program Increment 3	Mon 1/9/23	Fri 3/31/23	60 days		0%	0%	60 days	
159	2.2.3.1	N/A	Innovation & Planning Sprint 3.0	Mon 1/9/23	Fri 1/20/23	10 days	157	0%	0%	10 days	
160	2.2.3.2	N/A	Sprint 3.1	Mon 1/23/23	Fri 2/3/23	10 days	159	0%	0%	10 days	
161	2.2.3.3	N/A	Sprint 3.2	Mon 2/6/23	Fri 2/17/23	10 days	160	0%	0%	10 days	
162	2.2.3.4	N/A	Sprint 3.3	Mon 2/20/23	Fri 3/3/23	10 days	161	0%	0%	10 days	
163	2.2.3.5	N/A	Sprint 3.4	Mon 3/6/23	Fri 3/17/23	10 days	162	0%	0%	10 days	
164	2.2.3.6	N/A	Sprint 3.5	Mon 3/20/23	Fri 3/31/23	10 days	163	0%	0%	10 days	
165	2.2.4	N/A	Program Increment 4	Mon 4/3/23	Fri 6/23/23	58 days		0%	0%	58 days	
166	2.2.4.1	N/A	Innovation & Planning Sprint 4.0	Mon 4/3/23	Fri 4/14/23	10 days	164	0%	0%	10 days	
167	2.2.4.2	N/A	Sprint 4.1	Mon 4/17/23	Fri 4/28/23	10 days	166	0%	0%	10 days	
168	2.2.4.3	N/A	Sprint 4.2	Mon 5/1/23	Fri 5/12/23	10 days	167	0%	0%	10 days	
169	2.2.4.4	N/A	Sprint 4.3	Mon 5/15/23	Fri 5/26/23	10 days	168	0%	0%	10 days	
170	2.2.4.5	N/A	Sprint 4.4	Tue 5/30/23	Fri 6/9/23	9 days	169	0%	0%	9 days	
171	2.2.4.6	N/A	Sprint 4.5	Mon 6/12/23	Fri 6/23/23	9 days	170	0%	0%	9 days	
172	2.2.5	N/A	Program Increment 5 (Integrated Test)	Mon 6/26/23	Fri 9/1/23	48 days		0%	0%	48 days	
173	2.2.5.1	N/A	Test Planning & Preparation Sprint 5.0	Mon 6/26/23	Fri 7/7/23	8 days	171,223,259	0%	0%	8 days	
174	2.2.5.2	N/A	Testing Sprint 5.1	Mon 7/10/23	Fri 7/21/23	10 days	173	0%	0%	10 days	
175	2.2.5.3	N/A	Testing Sprint 5.2	Mon 7/24/23	Fri 8/4/23	10 days	174	0%	0%	10 days	

Attachment 3 - RI Metering Implementation Schedule, Schedule Extract, Page 2 of 10, Confidential for Client Use Only

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176	2.2.5.4	N/A	Testing Sprint 5.3	Mon 8/7/23	Fri 8/18/23	10 days	175	0%	0%	10 days	
177	2.2.5.5	N/A	Testing Sprint 5.4	Mon 8/21/23	Fri 9/1/23	10 days	176	0%	0%	10 days	
178	*2.2.6*	*N/A*	*Development Ready for Deployment*	*Fri 9/1/23*	*Fri 9/1/23*	*0 days*	*177*	*0%*	*0%*	*0 days*	
179	**2.3**	**N/A**	**Data Conversion**	**Mon 9/12/22**	**Fri 8/18/23**	**226 days**		**0%**	**0%**	**226 days**	
180	2.3.1	N/A	Conversion mapping workshops during PI1	Mon 9/12/22	Thu 10/20/22	29 days	149	0%	0%	29 days	
181	2.3.2	N/A	Data conversion mapping, CR&B side data load, and validation testing, balancing and verification activities	Fri 10/21/22	Thu 2/2/23	60 days	180	0%	0%	60 days	
182	2.3.3	N/A	Complete legacy side data extract, cleansing, testing and development of any custom data extracts required for translation or transformation (during PI2 and PI3)	Mon 11/7/22	Fri 3/24/23	85 days	180,154	0%	0%	85 days	
183	2.3.4	N/A	Conduct initial mock data conversion (during PI3)	Mon 3/27/23	Fri 4/14/23	15 days	181,182	0%	0%	15 days	
184	*2.3.5*	*N/A*	*Ready for Mock Conversions*	*Fri 4/14/23*	*Fri 4/14/23*	*0 days*	*183*	*0%*	*0%*	*0 days*	
185	**2.3.6**	**N/A**	**Mock Data Conversion**	**Mon 4/17/23**	**Fri 8/18/23**	**86 days**		**0%**	**0%**	**86 days**	
186	2.3.6.1	N/A	Mock 1 Prep	Mon 4/17/23	Fri 5/5/23	15 days	166,184	0%	0%	15 days	
187	2.3.6.2	N/A	Mock 1	Mon 5/8/23	Fri 5/12/23	5 days	186	0%	0%	5 days	
188	2.3.6.3	N/A	Defect Fix and Mock 2 Prep	Mon 5/15/23	Fri 6/2/23	14 days	187	0%	0%	14 days	
189	2.3.6.4	N/A	Mock 2	Mon 6/5/23	Fri 6/9/23	5 days	188	0%	0%	5 days	
190	2.3.6.5	N/A	Defect Fix and Mock 3 Prep	Mon 6/12/23	Fri 6/30/23	14 days	189	0%	0%	14 days	
191	2.3.6.6	N/A	Mock 3	Wed 7/5/23	Tue 7/11/23	5 days	190	0%	0%	5 days	
192	2.3.6.7	N/A	Defect Fix and Mock 4 Prep	Wed 7/12/23	Fri 7/28/23	13 days	191	0%	0%	13 days	
193	2.3.6.8	N/A	Mock 4	Mon 7/31/23	Fri 8/4/23	5 days	192	0%	0%	5 days	
194	2.3.6.9	N/A	Final Data Conversion Defect Fixes	Mon 8/7/23	Fri 8/18/23	10 days	193	0%	0%	10 days	
195	*2.3.7*	*N/A*	*Data Ready for Deployment*	*Fri 8/18/23*	*Fri 8/18/23*	*0 days*	*194*	*0%*	*0%*	*0 days*	
196	**2.4**	**N/A**	**Security**	**Mon 11/7/22**	**Fri 9/15/23**	**205 days**		**0%**	**0%**	**205 days**	
197	2.4.1	N/A	Confirm user group and user application security	Mon 11/7/22	Fri 11/18/22	10 days	154	0%	0%	10 days	
198	2.4.2	N/A	Walk through IT general controls and technical infrastructure review to determine if the implementation introduced any additional risks	Mon 11/28/22	Fri 1/6/23	20 days	197	0%	0%	20 days	
199	2.4.3	N/A	Perform role-level and user-level segregation of duties (SOD) analysis and resolve any inherent role violations	Mon 1/9/23	Fri 3/31/23	60 days	198	0%	0%	60 days	
200	2.4.4	N/A	Analyze functional test results of the critical components, data conversions to determine test effectiveness of controls	Mon 8/21/23	Fri 9/15/23	19 days	199,176	0%	0%	19 days	
201	**2.5**	**N/A**	**Environments & Hardware**	**Wed 9/14/22**	**Thu 6/29/23**	**189 days**		**0%**	**0%**	**189 days**	
202	**2.5.1**	**N/A**	**Development readiness**	**Wed 9/14/22**	**Mon 10/31/22**	**32 days**		**0%**	**0%**	**32 days**	

Attachment 3 - RI Metering Implementation Schedule, Schedule Extract, Page 3 of 10, Confidential for Client Use Only

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203	2.5.1.1	N/A	Environment Planning Workshop	Thu 9/15/22	Wed 9/28/22	10 days	121	0%	0%	10 days	
204	*2.5.1.2*	*N/A*	*L+G Onboarded and Ready to start*	*Wed 9/14/22*	*Wed 9/14/22*	*0 days*	*121*	*0%*	*0%*	*0 days*	
205	*2.5.1.3*	*N/A*	*Itron Onboarded and Ready to start*	*Mon 10/31/22*	*Mon 10/31/22*	*0 days*	*121*	*0%*	*0%*	*0 days*	
206	*2.5.1.4*	*N/A*	*IFS-Clevest Onboarded and Ready to start*	*Wed 9/14/22*	*Wed 9/14/22*	*0 days*	*121*	*0%*	*0%*	*0 days*	
207	*2.5.1.5*	*N/A*	*Radian Onboarded and Ready to start*	*Wed 9/14/22*	*Wed 9/14/22*	*0 days*	*121*	*0%*	*0%*	*0 days*	
208	*2.5.1.6*	*N/A*	*Hartigen Onboarded and Ready to start*	*Wed 9/14/22*	*Wed 9/14/22*	*0 days*	*121*	*0%*	*0%*	*0 days*	
209	**2.5.2**	**N/A**	**MDMS & CC**	**Thu 9/29/22**	**Wed 4/5/23**	**120 days**		**0%**	**0%**	**120 days**	
210	2.5.2.1	N/A	Set-up development enviroment server	Thu 9/29/22	Wed 10/12/22	10 days	203,204	0%	0%	10 days	
211	*2.5.2.2*	*N/A*	*AMR Ready for Development*	*Wed 10/12/22*	*Wed 10/12/22*	*0 days*	*210*	*0%*	*0%*	*0 days*	
212	2.5.2.3	N/A	Obtain collection servers and transfer hardware	Thu 10/13/22	Wed 11/30/22	30 days	210	0%	0%	30 days	
213	2.5.2.4	N/A	Receive & inspect test drive-by and hand-held collectors	Thu 10/13/22	Wed 11/30/22	30 days	210	0%	0%	30 days	
214	*2.5.2.5*	*N/A*	*AMR Ready for Testing*	*Wed 11/30/22*	*Wed 11/30/22*	*0 days*	*212,213*	*0%*	*0%*	*0 days*	
215	2.5.2.6	N/A	Finalize AMR environments for production	Thu 12/1/22	Wed 4/5/23	80 days	214	0%	0%	80 days	
216	2.5.2.7	N/A	Receive & inspect production equipment	Thu 12/1/22	Wed 4/5/23	80 days	214	0%	0%	80 days	
217	*2.5.2.8*	*N/A*	*AMR Environments Ready for Deployment*	*Wed 4/5/23*	*Wed 4/5/23*	*0 days*	*215,216*	*0%*	*0%*	*0 days*	
218	**2.5.3**	**N/A**	**AMR**	**Thu 9/29/22**	**Wed 4/5/23**	**120 days**		**0%**	**0%**	**120 days**	
219	2.5.3.1	N/A	Set-up development enviroment server	Thu 9/29/22	Wed 10/12/22	10 days	203,206	0%	0%	10 days	
220	*2.5.3.2*	*N/A*	*AMR Ready for Development*	*Wed 10/12/22*	*Wed 10/12/22*	*0 days*	*219*	*0%*	*0%*	*0 days*	
221	2.5.3.3	N/A	Obtain collection servers and transfer hardware	Thu 10/13/22	Wed 11/30/22	30 days	219	0%	0%	30 days	
222	2.5.3.4	N/A	Receive & inspect test drive-by and hand-held collectors	Thu 10/13/22	Wed 11/30/22	30 days	219	0%	0%	30 days	
223	*2.5.3.5*	*N/A*	*AMR Ready for Testing*	*Wed 11/30/22*	*Wed 11/30/22*	*0 days*	*221,222*	*0%*	*0%*	*0 days*	
224	2.5.3.6	N/A	Finalize AMR environments for production	Thu 12/1/22	Wed 4/5/23	80 days	223	0%	0%	80 days	
225	2.5.3.7	N/A	Receive & inspect production equipment	Thu 12/1/22	Wed 4/5/23	80 days	223	0%	0%	80 days	
226	*2.5.3.8*	*N/A*	*AMR Environments Ready for Deployment*	*Wed 4/5/23*	*Wed 4/5/23*	*0 days*	*224,225*	*0%*	*0%*	*0 days*	
227	**2.5.4**	**N/A**	**MV90 Electric**	**Mon 10/31/22**	**Fri 5/5/23**	**120 days**		**0%**	**0%**	**120 days**	
228	2.5.4.1	N/A	Set-up development enviroment server	Mon 10/31/22	Fri 1/13/23	40 days	203,205	0%	0%	40 days	
229	*2.5.4.2*	*N/A*	*MV90 Electric Ready for Development & Testing*	*Fri 1/13/23*	*Fri 1/13/23*	*0 days*	*228*	*0%*	*0%*	*0 days*	
230	2.5.4.3	N/A	Finalize MV90 Electric environments for production	Mon 1/16/23	Fri 5/5/23	80 days	229	0%	0%	80 days	
231	2.5.4.4	N/A	Receive & inspect production equipment	Mon 1/16/23	Fri 5/5/23	80 days	229	0%	0%	80 days	
232	*2.5.4.5*	*N/A*	*MV90 Environments Ready for Deployment*	*Fri 5/5/23*	*Fri 5/5/23*	*0 days*	*230,231*	*0%*	*0%*	*0 days*	
233	**2.5.5**	**N/A**	**MV90 Gas**	**Mon 10/31/22**	**Fri 5/5/23**	**120 days**		**0%**	**0%**	**120 days**	
234	2.5.5.1	N/A	Set-up development enviroment server	Mon 10/31/22	Fri 1/13/23	40 days	203,205	0%	0%	40 days	
235	2.5.5.2	N/A	Establish test connections	Mon 1/16/23	Fri 2/24/23	30 days	234	0%	0%	30 days	

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236	*2.5.5.3*	*N/A*	*MV90 Gas Ready for Development & Testing*	*Fri 1/13/23*	*Fri 1/13/23*	*0 days*	*234*	*0%*	*0%*	*0 days*	
237	2.5.5.4	N/A	Finalize MV90 Gas environments for production	Mon 1/16/23	Fri 5/5/23	80 days	236	0%	0%	80 days	
238	*2.5.5.5*	*N/A*	*MV90 Gas Environments Ready for Deployment*	*Fri 5/5/23*	*Fri 5/5/23*	*0 days*	*237*	*0%*	*0%*	*0 days*	
239	**2.5.6**	**N/A**	**MetrixND**	**Mon 10/31/22**	**Fri 12/9/22**	**25 days**		**0%**	**0%**	**25 days**	
240	2.5.6.1	N/A	Obtain Metrix ND license	Mon 10/31/22	Fri 11/4/22	5 days	203,205	0%	0%	5 days	
241	2.5.6.2	N/A	Identify server or SaaS location	Mon 11/7/22	Fri 11/11/22	5 days	240	0%	0%	5 days	
242	2.5.6.3	N/A	Load MetrixND and establish access	Mon 11/14/22	Fri 12/9/22	15 days	241	0%	0%	15 days	
243	*2.5.6.4*	*N/A*	*MetrixND ready for development & testing*	*Fri 12/9/22*	*Fri 12/9/22*	*0 days*	*242*	*0%*	*0%*	*0 days*	
244	**2.5.7**	**N/A**	**Hartigen**	**Mon 10/31/22**	**Fri 12/9/22**	**25 days**		**0%**	**0%**	**25 days**	
245	2.5.7.1	N/A	Obtain Hartigen license	Mon 10/31/22	Fri 11/4/22	5 days	203,205,208	0%	0%	5 days	
246	2.5.7.2	N/A	Identify server or SaaS location	Mon 11/7/22	Fri 11/11/22	5 days	245	0%	0%	5 days	
247	2.5.7.3	N/A	Load Hartigen and establish access	Mon 11/14/22	Fri 12/9/22	15 days	246	0%	0%	15 days	
248	*2.5.7.4*	*N/A*	*MetrixND ready for development & testing*	*Fri 12/9/22*	*Fri 12/9/22*	*0 days*	*247*	*0%*	*0%*	*0 days*	
249	**2.5.8**	**N/A**	**Meter Testing**	**Thu 9/29/22**	**Thu 6/29/23**	**179 days**		**0%**	**0%**	**179 days**	
250	2.5.8.1	N/A	Set-up development enviroment server	Thu 9/29/22	Wed 10/12/22	10 days	203,206,207	0%	0%	10 days	
251	*2.5.8.2*	*N/A*	*WattNet+ Ready for Development*	*Wed 10/12/22*	*Wed 10/12/22*	*0 days*	*250*	*0%*	*0%*	*0 days*	
252	2.5.8.3	N/A	Identify meter test location	Thu 10/13/22	Tue 11/29/22	29 days	250	0%	0%	29 days	
253	2.5.8.4	N/A	Prep meter test location	Wed 11/30/22	Tue 1/24/23	30 days	252	0%	0%	30 days	
254	2.5.8.5	N/A	Obtain testing servers hardware	Thu 10/13/22	Tue 11/29/22	29 days	250	0%	0%	29 days	
255	2.5.8.6	N/A	Receive & inspect sample AMR meters	Wed 1/25/23	Tue 3/7/23	30 days	253	0%	0%	30 days	
256	2.5.8.7	N/A	Procure & receive gas meter provers	Thu 10/13/22	Tue 3/7/23	89 days	250,253FF	0%	0%	89 days	
257	2.5.8.8	N/A	Procure & receive sample AMI meters	Thu 10/13/22	Tue 3/7/23	89 days	250,253FF	0%	0%	89 days	
258	2.5.8.9	N/A	Receive & inspect sample gas meters	Wed 1/25/23	Tue 3/7/23	30 days	253	0%	0%	30 days	
259	*2.5.8.10*	*N/A*	*Meter Test Ready for Testing*	*Tue 3/7/23*	*Tue 3/7/23*	*0 days*	*############*	*0%*	*0%*	*0 days*	
260	2.5.8.11	N/A	Finalize Meter Test environments for production	Wed 3/8/23	Thu 6/29/23	80 days	259	0%	0%	80 days	
261	2.5.8.12	N/A	Receive & inspect production equipment	Wed 3/8/23	Thu 6/29/23	80 days	259	0%	0%	80 days	
262	*2.5.8.13*	*N/A*	*Meter Test Environments & Hardware Ready for Deployment*	*Thu 6/29/23*	*Thu 6/29/23*	*0 days*	*260,261*	*0%*	*0%*	*0 days*	
263	*2.5.9*	*N/A*	*All Environments & Hardware ready for Deployment*	*Thu 6/29/23*	*Thu 6/29/23*	*0 days*	*############*	*0%*	*0%*	*0 days*	
264	**2.6**	**N/A**	**Network Deployment**	**Thu 6/29/23**	**Thu 8/10/23**	**28 days**		**0%**	**0%**	**28 days**	
265	*2.6.1*	*N/A*	*Ready for network deployment*	*Thu 6/29/23*	*Thu 6/29/23*	*0 days*	*263*	*0%*	*0%*	*0 days*	
266	**2.6.2**	**N/A**	**Conduct Walkthrough**	**Fri 6/30/23**	**Mon 7/17/23**	**10 days**		**0%**	**0%**	**10 days**	
267	2.6.2.1	N/A	Network Deployment Prep	Fri 6/30/23	Mon 7/10/23	5 days	265	0%	0%	5 days	
268	2.6.2.2	N/A	Network Deployment Walkthrough	Tue 7/11/23	Mon 7/17/23	5 days	267	0%	0%	5 days	

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269	**2.6.3**	**N/A**	**Go/No-go Stage Gate**	**Tue 7/18/23**	**Mon 7/24/23**	**5 days**		**0%**	**0%**	**5 days**	
270	2.6.3.1	N/A	Review cutover go/no-go checklist	Tue 7/18/23	Thu 7/20/23	3 days	268	0%	0%	3 days	
271	2.6.3.2	N/A	Go/No-go decision meeting	Fri 7/21/23	Fri 7/21/23	1 day	270	0%	0%	1 day	
272	2.6.3.3	N/A	Publish Go / no-go decision	Mon 7/24/23	Mon 7/24/23	1 day	271	0%	0%	1 day	
273	**2.6.4**	**N/A**	**Final data conversion (extract, load, cleaning, balancing and verification**	**Tue 7/18/23**	**Thu 8/10/23**	**18 days**		**0%**	**0%**	**18 days**	
274	2.6.4.1	N/A	Cutover Prep	Tue 7/18/23	Mon 8/7/23	15 days	268	0%	0%	15 days	
275	2.6.4.2	N/A	Execute Cutover	Mon 8/7/23	Thu 8/10/23	72 hrs	272,274	0%	0%	9 days	
276	*2.6.4.3*	*N/A*	*Network Deployment Complete*	*Thu 8/10/23*	*Thu 8/10/23*	*0 days*	*275*	*0%*	*0%*	*0 days*	
277	**2.7**	**N/A**	**Release 1 Deployment Prep**	**Mon 1/23/23**	**Fri 9/8/23**	**160 days**		**0%**	**0%**	**160 days**	
278	**2.7.1**	**N/A**	**Cutover Management**	**Mon 1/23/23**	**Fri 6/23/23**	**108 days**		**0%**	**0%**	**108 days**	
279	2.7.1.1	N/A	Develop cutover plan, schedule and contingency plans	Mon 1/23/23	Fri 4/14/23	60 days	159	0%	0%	60 days	
280	2.7.1.2	N/A	Verify the functional cutover checklist	Mon 4/17/23	Fri 5/12/23	20 days	279	0%	0%	20 days	
281	2.7.1.3	N/A	Confirm post-go-live support organization in place	Mon 5/15/23	Fri 6/23/23	28 days	280	0%	0%	28 days	
282	*2.7.1.4*	*N/A*	*Management Ready for Release 1*	*Fri 6/23/23*	*Fri 6/23/23*	*0 days*	*280,281*	*0%*	*0%*	*0 days*	
283	**2.7.2**	**N/A**	**Environments**	**Mon 7/10/23**	**Fri 8/25/23**	**35 days**		**0%**	**0%**	**35 days**	
284	2.7.2.1	N/A	Finalize installation of hardware solution requirements for live operations	Mon 7/10/23	Fri 8/25/23	35 days	173	0%	0%	35 days	
285	2.7.2.2	N/A	Finalize and stand up production command center communications and procedures	Mon 7/10/23	Fri 8/25/23	35 days	173	0%	0%	35 days	
286	2.7.2.3	N/A	Prepare production environment and finalize installation of hardware platform requirements for live operations	Mon 7/10/23	Fri 8/25/23	35 days	173	0%	0%	35 days	
287	2.7.2.4	N/A	Verify conversion programs	Mon 7/10/23	Thu 8/24/23	34 days	173	0%	0%	34 days	
288	*2.7.2.5*	*N/A*	*Environments Ready for Release 1*	*Fri 8/25/23*	*Fri 8/25/23*	*0 days*	*############*	*0%*	*0%*	*0 days*	
289	**2.7.3**	**N/A**	**Performance Testing**	**Mon 8/28/23**	**Fri 9/8/23**	**9 days**		**0%**	**0%**	**9 days**	
290	2.7.3.1	N/A	Performance (volumetric) Testing	Mon 8/28/23	Fri 9/8/23	9 days	288	0%	0%	9 days	
291	2.7.3.2	N/A	Final System Acceptance Test	Mon 8/28/23	Fri 9/8/23	9 days	288	0%	0%	9 days	
292	2.7.3.3	N/A	Stress Test	Mon 8/28/23	Fri 9/8/23	9 days	288	0%	0%	9 days	
293	*2.7.3.4*	*N/A*	*Performance Testing Complete*	*Fri 9/8/23*	*Fri 9/8/23*	*0 days*	*290,291,292*	*0%*	*0%*	*0 days*	
294	*2.8*	*N/A*	*Ready for Release 1 Deployment*	*Fri 9/8/23*	*Fri 9/8/23*	*0 days*	*############*	*0%*	*0%*	*0 days*	
295	**2.9**	**N/A**	**Release 1 Deployment**	**Fri 9/1/23**	**Sun 10/1/23**	**19 days**		**0%**	**0%**	**19 days**	
296	*2.9.1*	*N/A*	*Start Deployment Activities*	*Fri 9/1/23*	*Fri 9/1/23*	*0 days*	*178*	*0%*	*0%*	*0 days*	
297	**2.9.2**	**N/A**	**Conduct Dress Rehearsal**	**Tue 9/5/23**	**Fri 9/15/23**	**9 days**		**0%**	**0%**	**9 days**	

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298	2.9.2.1	N/A	Dress Rehearsal Prep	Tue 9/5/23	Fri 9/8/23	4 days	296	0%	0%	4 days	
299	2.9.2.2	N/A	Dress Rehearsal	Mon 9/11/23	Fri 9/15/23	5 days	298	0%	0%	5 days	
300	**2.9.3**	**N/A**	**Go/No-go Stage Gate**	**Mon 9/18/23**	**Fri 9/22/23**	**5 days**		**0%**	**0%**	**5 days**	
301	2.9.3.1	N/A	Review cutover go/no-go checklist	Mon 9/18/23	Wed 9/20/23	3 days	299	0%	0%	3 days	
302	2.9.3.2	N/A	Go/No-go decision meeting	Thu 9/21/23	Thu 9/21/23	1 day	301	0%	0%	1 day	
303	2.9.3.3	N/A	Publish Go / no-go decision	Fri 9/22/23	Fri 9/22/23	1 day	302	0%	0%	1 day	
304	**2.9.4**	**N/A**	**Final data conversion (extract, load, cleaning, balancing and verification**	**Mon 9/18/23**	**Sun 10/1/23**	**10 days**		**0%**	**0%**	**10 days**	
305	2.9.4.1	N/A	Cutover Prep	Mon 9/18/23	Fri 9/29/23	10 days	299	0%	0%	10 days	
306	2.9.4.2	N/A	Execute Cutover	Fri 9/29/23	Sun 10/1/23	48 hrs	305,303	0%	0%	6 days	
307	*2.9.4.3*	*N/A*	*Release 1 Live*	*Sun 10/1/23*	*Sun 10/1/23*	*0 days*	*306*	*0%*	*0%*	*0 days*	
308	**2.1**	**N/A**	**Deliverables**	**Fri 10/21/22**	**Fri 9/1/23**	**206 days**		**0%**	**0%**	**206 days**	
309	*2.10.1*	*N/A*	*Cutover plan*	*Fri 4/14/23*	*Fri 4/14/23*	*0 days*	*279*	*0%*	*0%*	*0 days*	
310	*2.10.2*	*N/A*	*PI1 Completion Report*	*Fri 10/21/22*	*Fri 10/21/22*	*0 days*	*152*	*0%*	*0%*	*0 days*	
311	*2.10.3*	*N/A*	*PI2 Completion Report*	*Fri 1/6/23*	*Fri 1/6/23*	*0 days*	*157*	*0%*	*0%*	*0 days*	
312	*2.10.4*	*N/A*	*PI3 Completion Report*	*Fri 3/31/23*	*Fri 3/31/23*	*0 days*	*164*	*0%*	*0%*	*0 days*	
313	*2.10.5*	*N/A*	*PI4 Completion Report*	*Fri 6/23/23*	*Fri 6/23/23*	*0 days*	*171*	*0%*	*0%*	*0 days*	
314	*2.10.6*	*N/A*	*PI5 Completion Report*	*Fri 9/1/23*	*Fri 9/1/23*	*0 days*	*177*	*0%*	*0%*	*0 days*	
315	*2.10.7*	*N/A*	*Final Test Completion Report*	*Fri 9/1/23*	*Fri 9/1/23*	*0 days*	*177*	*0%*	*0%*	*0 days*	
316	*2.10.8*	*N/A*	*Final Mock Conversion Report*	*Fri 8/18/23*	*Fri 8/18/23*	*0 days*	*195*	*0%*	*0%*	*0 days*	
317	*2.11*	*N/A*	*Agile Development Release 1 Complete*	*Sun 10/1/23*	*Sun 10/1/23*	*0 days*	*##########*	*0%*	*0%*	*0 days*	
318	**3**	**N/A**	**AGILE DEVELOPMENT RELEASE 2**	**Sun 10/1/23**	**Sun 4/28/24**	**135 days**		**0%**	**0%**	**135 days**	
319	*3.1*	*N/A*	*Start Release 2*	*Sun 10/1/23*	*Sun 10/1/23*	*0 days*	*317*	*0%*	*0%*	*0 days*	
320	**3.2**	**N/A**	**Development & Testing, Agile Cycles**	**Mon 10/2/23**	**Fri 3/22/24**	**110 days**		**0%**	**0%**	**110 days**	
321	**3.2.1**	**N/A**	**Program Increment 6**	**Mon 10/2/23**	**Fri 12/15/23**	**50 days**		**0%**	**0%**	**50 days**	
322	3.2.1.1	N/A	Planning & Orientation Sprint 6.0	Mon 10/2/23	Fri 10/13/23	10 days	319	0%	0%	10 days	
323	3.2.1.2	N/A	Sprint 6.1	Mon 10/16/23	Fri 10/27/23	10 days	322	0%	0%	10 days	
324	3.2.1.3	N/A	Sprint 6.2	Mon 10/30/23	Fri 11/10/23	10 days	323	0%	0%	10 days	
325	3.2.1.4	N/A	Sprint 6.3	Mon 11/13/23	Fri 12/1/23	10 days	324	0%	0%	10 days	
326	3.2.1.5	N/A	Sprint 6.4	Mon 12/4/23	Fri 12/15/23	10 days	325	0%	0%	10 days	
327	**3.2.2**	**N/A**	**Program Increment 7**	**Mon 12/18/23**	**Fri 3/22/24**	**60 days**		**0%**	**0%**	**60 days**	
328	3.2.2.1	N/A	Innovation & Planning Sprint 7.0	Mon 12/18/23	Fri 1/12/24	10 days	325,326	0%	0%	10 days	
329	3.2.2.2	N/A	Sprint 7.1	Mon 1/15/24	Fri 1/26/24	10 days	328	0%	0%	10 days	
330	3.2.2.3	N/A	Sprint 7.2	Mon 1/29/24	Fri 2/9/24	10 days	329	0%	0%	10 days	

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331	3.2.2.4	N/A	Sprint 7.3 (Testing)	Mon 2/12/24	Fri 2/23/24	10 days	330	0%	0%	10 days	
332	3.2.2.5	N/A	Sprint 7.4 (Testing)	Mon 2/26/24	Fri 3/8/24	10 days	331	0%	0%	10 days	
333	3.2.2.6	N/A	Sprint 7.5 (Testing)	Mon 3/11/24	Fri 3/22/24	10 days	332	0%	0%	10 days	
334	*3.2.3*	*N/A*	*Development Ready for Deployment*	*Fri 3/22/24*	*Fri 3/22/24*	*0 days*	*333*	*0%*	*0%*	*0 days*	
335	**3.3**	**N/A**	**Release 2 Deployment**	**Fri 3/22/24**	**Sun 4/28/24**	**25 days**		**0%**	**0%**	**25 days**	
336	*3.3.1*	*N/A*	*Start Deployment Activities*	*Fri 3/22/24*	*Fri 3/22/24*	*0 days*	*334*	*0%*	*0%*	*0 days*	
337	**3.3.2**	**N/A**	**Conduct Dress Rehearsal**	**Mon 3/25/24**	**Fri 4/5/24**	**10 days**		**0%**	**0%**	**10 days**	
338	3.3.2.1	N/A	Dress Rehearsal Prep	Mon 3/25/24	Fri 3/29/24	5 days	336	0%	0%	5 days	
339	3.3.2.2	N/A	Dress Rehearsal	Mon 4/1/24	Fri 4/5/24	5 days	338	0%	0%	5 days	
340	**3.3.3**	**N/A**	**Go/No-go Stage Gate**	**Mon 4/8/24**	**Fri 4/12/24**	**5 days**		**0%**	**0%**	**5 days**	
341	3.3.3.1	N/A	Review cutover go/no-go checklist	Mon 4/8/24	Wed 4/10/24	3 days	339	0%	0%	3 days	
342	3.3.3.2	N/A	Go/No-go decision meeting	Thu 4/11/24	Thu 4/11/24	1 day	341	0%	0%	1 day	
343	3.3.3.3	N/A	Publish Go / no-go decision	Fri 4/12/24	Fri 4/12/24	1 day	342	0%	0%	1 day	
344	**3.3.4**	**N/A**	**Final data conversion (extract, load, cleaning, balancing and verification**	**Mon 4/8/24**	**Sun 4/28/24**	**15 days**		**0%**	**0%**	**15 days**	
345	3.3.4.1	N/A	Cutover Prep	Mon 4/8/24	Thu 4/25/24	14 days	339	0%	0%	14 days	
346	3.3.4.2	N/A	Execute Cutover	Thu 4/25/24	Sun 4/28/24	72 hrs	343,345	0%	0%	9 days	
347	*3.3.4.3*	*N/A*	*Release 2 Live*	*Sun 4/28/24*	*Sun 4/28/24*	*0 days*	*346*	*0%*	*0%*	*0 days*	
348	**3.4**	**N/A**	**Deliverables**	**Fri 12/15/23**	**Fri 3/22/24**	**60 days**		**0%**	**0%**	**60 days**	
349	*3.4.1*	*N/A*	*PI7 Completion Report*	*Fri 12/15/23*	*Fri 12/15/23*	*0 days*	*325,326*	*0%*	*0%*	*0 days*	
350	*3.4.2*	*N/A*	*PI8 Completion Report*	*Fri 3/22/24*	*Fri 3/22/24*	*0 days*	*333*	*0%*	*0%*	*0 days*	
351	*3.4.3*	*N/A*	*Final Test Completion Report*	*Fri 3/22/24*	*Fri 3/22/24*	*0 days*	*333*	*0%*	*0%*	*0 days*	
352	*3.5*	*N/A*	*Agile Development Release 2 Complete*	*Sun 4/28/24*	*Sun 4/28/24*	*0 days*	*############*	*0%*	*0%*	*0 days*	
353	**4**	**N/A**	**AGILE DEVELOPMENT RELEASE 3**	**Sun 4/28/24**	**Sun 11/17/24**	**142 days**		**0%**	**0%**	**142 days**	
354	*4.1*	*N/A*	*Start Release 3*	*Sun 4/28/24*	*Sun 4/28/24*	*0 days*	*352*	*0%*	*0%*	*0 days*	
355	**4.2**	**N/A**	**Development & Testing, Agile Cycles**	**Mon 4/29/24**	**Fri 10/11/24**	**117 days**		**0%**	**0%**	**117 days**	
356	**4.2.1**	**N/A**	**Program Increment 8**	**Mon 4/29/24**	**Thu 7/18/24**	**58 days**		**0%**	**0%**	**58 days**	
357	4.2.1.1	N/A	Planning & Orientation Sprint 8.0	Mon 4/29/24	Fri 5/10/24	10 days	354	0%	0%	10 days	
358	4.2.1.2	N/A	Sprint 8.1	Mon 5/13/24	Fri 5/24/24	10 days	357	0%	0%	10 days	
359	4.2.1.3	N/A	Sprint 8.2	Tue 5/28/24	Fri 6/7/24	9 days	358	0%	0%	9 days	
360	4.2.1.4	N/A	Sprint 8.3	Mon 6/10/24	Fri 6/21/24	10 days	359	0%	0%	10 days	
361	4.2.1.5	N/A	Sprint 8.4	Mon 6/24/24	Fri 7/5/24	10 days	360	0%	0%	10 days	
362	4.2.1.6	N/A	Sprint 8.5	Mon 7/8/24	Thu 7/18/24	9 days	361	0%	0%	9 days	
363	**4.2.2**	**N/A**	**Program Increment 9**	**Mon 7/22/24**	**Fri 10/11/24**	**59 days**		**0%**	**0%**	**59 days**	

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364	4.2.2.1	N/A	Innovation & Planning Sprint 9.0	Mon 7/22/24	Fri 8/2/24	10 days	360,361,362	0%	0%	10 days	
365	4.2.2.2	N/A	Sprint 9.1	Mon 8/5/24	Fri 8/16/24	10 days	364	0%	0%	10 days	
366	4.2.2.3	N/A	Sprint 9.2	Mon 8/19/24	Fri 8/30/24	10 days	365	0%	0%	10 days	
367	4.2.2.4	N/A	Sprint 9.3 (Testing)	Tue 9/3/24	Fri 9/13/24	9 days	366	0%	0%	9 days	
368	4.2.2.5	N/A	Sprint 9.4 (Testing)	Mon 9/16/24	Fri 9/27/24	10 days	367	0%	0%	10 days	
369	4.2.2.6	N/A	Sprint 9.5 (Testing)	Mon 9/30/24	Fri 10/11/24	10 days	368	0%	0%	10 days	
370	*4.2.3*	*N/A*	*Development Ready for Deployment*	*Fri 10/11/24*	*Fri 10/11/24*	*0 days*	*369*	*0%*	*0%*	*0 days*	
371	**4.3**	**N/A**	**Release 3 Deployment**	**Fri 10/11/24**	**Sun 11/17/24**	**25 days**		**0%**	**0%**	**25 days**	
372	*4.3.1*	*N/A*	*Start Deployment Activities*	*Fri 10/11/24*	*Fri 10/11/24*	*0 days*	*370*	*0%*	*0%*	*0 days*	
373	**4.3.2**	**N/A**	**Conduct Dress Rehearsal**	**Mon 10/14/24**	**Fri 10/25/24**	**10 days**		**0%**	**0%**	**10 days**	
374	4.3.2.1	N/A	Dress Rehearsal Prep	Mon 10/14/24	Fri 10/18/24	5 days	372	0%	0%	5 days	
375	4.3.2.2	N/A	Dress Rehearsal	Mon 10/21/24	Fri 10/25/24	5 days	374	0%	0%	5 days	
376	**4.3.3**	**N/A**	**Go/No-go Stage Gate**	**Mon 10/28/24**	**Fri 11/1/24**	**5 days**		**0%**	**0%**	**5 days**	
377	4.3.3.1	N/A	Review cutover go/no-go checklist	Mon 10/28/24	Wed 10/30/24	3 days	375	0%	0%	3 days	
378	4.3.3.2	N/A	Go/No-go decision meeting	Thu 10/31/24	Thu 10/31/24	1 day	377	0%	0%	1 day	
379	4.3.3.3	N/A	Publish Go / no-go decision	Fri 11/1/24	Fri 11/1/24	1 day	378	0%	0%	1 day	
380	**4.3.4**	**N/A**	**Final data conversion (extract, load, cleaning, balancing and verification**	**Mon 10/28/24**	**Sun 11/17/24**	**15 days**		**0%**	**0%**	**15 days**	
381	4.3.4.1	N/A	Cutover Prep	Mon 10/28/24	Thu 11/14/24	14 days	375	0%	0%	14 days	
382	4.3.4.2	N/A	Execute Cutover	Thu 11/14/24	Sun 11/17/24	72 hrs	379,381	0%	0%	9 days	
383	*4.3.4.3*	*N/A*	*Release 3 Live*	*Sun 11/17/24*	*Sun 11/17/24*	*0 days*	*382*	*0%*	*0%*	*0 days*	
384	**4.4**	**N/A**	**Deliverables**	**Thu 7/18/24**	**Fri 10/11/24**	**59 days**		**0%**	**0%**	**59 days**	
385	*4.4.1*	*N/A*	*PI8 Completion Report*	*Thu 7/18/24*	*Thu 7/18/24*	*0 days*	*360,361,362*	*0%*	*0%*	*0 days*	
386	*4.4.2*	*N/A*	*PI9 Completion Report*	*Fri 10/11/24*	*Fri 10/11/24*	*0 days*	*369*	*0%*	*0%*	*0 days*	
387	*4.4.3*	*N/A*	*Final Test Completion Report*	*Fri 10/11/24*	*Fri 10/11/24*	*0 days*	*369*	*0%*	*0%*	*0 days*	
388	*4.5*	*N/A*	*Agile Development Release 3 Complete*	*Sun 11/17/24*	*Sun 11/17/24*	*0 days*	*############*	*0%*	*0%*	*0 days*	
389	**5**	**N/A**	**AGILE DEVELOPMENT RELEASE 4**	**Sun 11/17/24**	**Sun 6/15/25**	**134 days**		**0%**	**0%**	**134 days**	
390	*5.1*	*N/A*	*Start Release 4*	*Sun 11/17/24*	*Sun 11/17/24*	*0 days*	*388*	*0%*	*0%*	*0 days*	
391	**5.2**	**N/A**	**Development & Testing, Agile Cycles**	**Mon 11/18/24**	**Fri 5/9/25**	**110 days**		**0%**	**0%**	**110 days**	
392	**5.2.1**	**N/A**	**Program Increment 10**	**Mon 11/18/24**	**Fri 2/14/25**	**50 days**		**0%**	**0%**	**50 days**	
393	5.2.1.1	N/A	Planning & Orientation Sprint 10.0	Mon 11/18/24	Fri 12/6/24	10 days	390	0%	0%	10 days	
394	5.2.1.2	N/A	Sprint 10.1	Mon 12/9/24	Fri 12/20/24	10 days	393	0%	0%	10 days	
395	5.2.1.3	N/A	Sprint 10.2	Mon 1/6/25	Fri 1/17/25	10 days	394	0%	0%	10 days	
396	5.2.1.4	N/A	Sprint 10.3	Mon 1/20/25	Fri 1/31/25	10 days	395	0%	0%	10 days	

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397	5.2.1.5	N/A	Sprint 10.4	Mon 2/3/25	Fri 2/14/25	10 days	396	0%	0%	10 days	
398	**5.2.2**	**N/A**	**Program Increment 11**	**Mon 2/17/25**	**Fri 5/9/25**	**60 days**		**0%**	**0%**	**60 days**	
399	5.2.2.1	N/A	Innovation & Planning Sprint 11.0	Mon 2/17/25	Fri 2/28/25	10 days	396,397	0%	0%	10 days	
400	5.2.2.2	N/A	Sprint 11.1	Mon 3/3/25	Fri 3/14/25	10 days	399	0%	0%	10 days	
401	5.2.2.3	N/A	Sprint 11.2	Mon 3/17/25	Fri 3/28/25	10 days	400	0%	0%	10 days	
402	5.2.2.4	N/A	Sprint 11.3 (Testing)	Mon 3/31/25	Fri 4/11/25	10 days	401	0%	0%	10 days	
403	5.2.2.5	N/A	Sprint 11.4 (Testing)	Mon 4/14/25	Fri 4/25/25	10 days	402	0%	0%	10 days	
404	5.2.2.6	N/A	Sprint 11.5 (Testing)	Mon 4/28/25	Fri 5/9/25	10 days	403	0%	0%	10 days	
405	*5.2.3*	*N/A*	*Development Ready for Deployment*	*Fri 5/9/25*	*Fri 5/9/25*	*0 days*	*404*	*0%*	*0%*	*0 days*	
406	**5.3**	**N/A**	**Release 4 Deployment**	**Fri 5/9/25**	**Sun 6/15/25**	**24 days**		**0%**	**0%**	**24 days**	
407	*5.3.1*	*N/A*	*Start Deployment Activities*	*Fri 5/9/25*	*Fri 5/9/25*	*0 days*	*405*	*0%*	*0%*	*0 days*	
408	**5.3.2**	**N/A**	**Conduct Dress Rehearsal**	**Mon 5/12/25**	**Fri 5/23/25**	**10 days**		**0%**	**0%**	**10 days**	
409	5.3.2.1	N/A	Dress Rehearsal Prep	Mon 5/12/25	Fri 5/16/25	5 days	407	0%	0%	5 days	
410	5.3.2.2	N/A	Dress Rehearsal	Mon 5/19/25	Fri 5/23/25	5 days	409	0%	0%	5 days	
411	**5.3.3**	**N/A**	**Go/No-go Stage Gate**	**Tue 5/27/25**	**Fri 5/30/25**	**4 days**		**0%**	**0%**	**4 days**	
412	5.3.3.1	N/A	Review cutover go/no-go checklist	Tue 5/27/25	Wed 5/28/25	2 days	410	0%	0%	2 days	
413	5.3.3.2	N/A	Go/No-go decision meeting	Thu 5/29/25	Thu 5/29/25	1 day	412	0%	0%	1 day	
414	5.3.3.3	N/A	Publish Go / no-go decision	Fri 5/30/25	Fri 5/30/25	1 day	413	0%	0%	1 day	
415	**5.3.4**	**N/A**	**Final data conversion (extract, load, cleaning, balancing and verification**	**Tue 5/27/25**	**Sun 6/15/25**	**14 days**		**0%**	**0%**	**14 days**	
416	5.3.4.1	N/A	Cutover Prep	Tue 5/27/25	Thu 6/12/25	13 days	410	0%	0%	13 days	
417	5.3.4.2	N/A	Execute Cutover	Thu 6/12/25	Sun 6/15/25	72 hrs	414,416	0%	0%	9 days	
418	*5.3.4.3*	*N/A*	*Release 4 Live*	*Sun 6/15/25*	*Sun 6/15/25*	*0 days*	*417*	*0%*	*0%*	*0 days*	
419	**5.4**	**N/A**	**Deliverables**	**Fri 2/14/25**	**Fri 5/9/25**	**60 days**		**0%**	**0%**	**60 days**	
420	*5.4.1*	*N/A*	*PI10 Completion Report*	*Fri 2/14/25*	*Fri 2/14/25*	*0 days*	*396,397*	*0%*	*0%*	*0 days*	
421	*5.4.2*	*N/A*	*PI11 Completion Report*	*Fri 5/9/25*	*Fri 5/9/25*	*0 days*	*404*	*0%*	*0%*	*0 days*	
422	*5.4.3*	*N/A*	*Final Test Completion Report*	*Fri 5/9/25*	*Fri 5/9/25*	*0 days*	*404*	*0%*	*0%*	*0 days*	
423	*5.5*	*N/A*	*Agile Development Release 4 Complete*	*Sun 6/15/25*	*Sun 6/15/25*	*0 days*	*############*	*0%*	*0%*	*0 days*	
424	**6**	**N/A**	**AGILE DEVELOPMENT RELEASE 5**	**Sun 6/15/25**	**Sun 12/14/25**	**122 days**		**0%**	**0%**	**122 days**	
425	*6.1*	*N/A*	*Start Release 5*	*Sun 6/15/25*	*Sun 6/15/25*	*0 days*	*423*	*0%*	*0%*	*0 days*	
426	**6.2**	**N/A**	**Development & Testing, Agile Cycles**	**Mon 6/16/25**	**Fri 10/31/25**	**97 days**		**0%**	**0%**	**97 days**	
427	**6.2.1**	**N/A**	**Program Increment 12**	**Mon 6/16/25**	**Fri 8/22/25**	**48 days**		**0%**	**0%**	**48 days**	
428	6.2.1.1	N/A	Planning & Orientation Sprint 12.0	Mon 6/16/25	Fri 6/27/25	9 days	425	0%	0%	9 days	
429	6.2.1.2	N/A	Sprint 12.1	Mon 6/30/25	Fri 7/11/25	9 days	428	0%	0%	9 days	

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430	6.2.1.3	N/A	Sprint 12.2	Mon 7/14/25	Fri 7/25/25	10 days	429	0%	0%	10 days	
431	6.2.1.4	N/A	Sprint 12.3	Mon 7/28/25	Fri 8/8/25	10 days	430	0%	0%	10 days	
432	6.2.1.5	N/A	Sprint 12.4	Mon 8/11/25	Fri 8/22/25	10 days	431	0%	0%	10 days	
433	**6.2.2**	**N/A**	**Program Increment 13**	**Mon 8/25/25**	**Fri 10/31/25**	**49 days**		**0%**	**0%**	**49 days**	
434	6.2.2.1	N/A	Innovation & Planning Sprint 13.0	Mon 8/25/25	Fri 9/5/25	9 days	432	0%	0%	9 days	
435	6.2.2.2	N/A	Sprint 13.1	Mon 9/8/25	Fri 9/19/25	10 days	434	0%	0%	10 days	
436	6.2.2.3	N/A	Sprint 13.2	Mon 9/22/25	Fri 10/3/25	10 days	435	0%	0%	10 days	
437	6.2.2.4	N/A	Sprint 13.3 (Testing)	Mon 10/6/25	Fri 10/17/25	10 days	436	0%	0%	10 days	
438	6.2.2.5	N/A	Sprint 13.4 (Testing)	Mon 10/20/25	Fri 10/31/25	10 days	437	0%	0%	10 days	
439	*6.2.3*	*N/A*	*Development Ready for Deployment*	*Fri 10/31/25*	*Fri 10/31/25*	*0 days*	*438*	*0%*	*0%*	*0 days*	
440	**6.3**	**N/A**	**Release 5 Deployment**	**Fri 10/31/25**	**Sun 12/14/25**	**25 days**		**0%**	**0%**	**25 days**	
441	*6.3.1*	*N/A*	*Start Deployment Activities*	*Fri 10/31/25*	*Fri 10/31/25*	*0 days*	*439*	*0%*	*0%*	*0 days*	
442	**6.3.2**	**N/A**	**Conduct Dress Rehearsal**	**Mon 11/3/25**	**Fri 11/14/25**	**10 days**		**0%**	**0%**	**10 days**	
443	6.3.2.1	N/A	Dress Rehearsal Prep	Mon 11/3/25	Fri 11/7/25	5 days	441	0%	0%	5 days	
444	6.3.2.2	N/A	Dress Rehearsal	Mon 11/10/25	Fri 11/14/25	5 days	443	0%	0%	5 days	
445	**6.3.3**	**N/A**	**Go/No-go Stage Gate**	**Mon 11/17/25**	**Fri 11/21/25**	**5 days**		**0%**	**0%**	**5 days**	
446	6.3.3.1	N/A	Review cutover go/no-go checklist	Mon 11/17/25	Wed 11/19/25	3 days	444	0%	0%	3 days	
447	6.3.3.2	N/A	Go/No-go decision meeting	Thu 11/20/25	Thu 11/20/25	1 day	446	0%	0%	1 day	
448	6.3.3.3	N/A	Publish Go / no-go decision	Fri 11/21/25	Fri 11/21/25	1 day	447	0%	0%	1 day	
449	**6.3.4**	**N/A**	**Final data conversion (extract, load, cleaning, balancing and verification**	**Mon 11/17/25**	**Sun 12/14/25**	**15 days**		**0%**	**0%**	**15 days**	
450	6.3.4.1	N/A	Cutover Prep	Mon 11/17/25	Thu 12/11/25	14 days	444	0%	0%	14 days	
451	6.3.4.2	N/A	Execute Cutover	Thu 12/11/25	Sun 12/14/25	72 hrs	448,450	0%	0%	9 days	
452	*6.3.4.3*	*N/A*	*Release 5 Live*	*Sun 12/14/25*	*Sun 12/14/25*	*0 days*	*451*	*0%*	*0%*	*0 days*	
453	**6.4**	**N/A**	**Deliverables**	**Fri 8/22/25**	**Fri 10/31/25**	**49 days**		**0%**	**0%**	**49 days**	
454	*6.4.1*	*N/A*	*PI12 Completion Report*	*Fri 8/22/25*	*Fri 8/22/25*	*0 days*	*432*	*0%*	*0%*	*0 days*	
455	*6.4.2*	*N/A*	*PI13 Completion Report*	*Fri 10/31/25*	*Fri 10/31/25*	*0 days*	*438*	*0%*	*0%*	*0 days*	
456	*6.4.3*	*N/A*	*Final Test Completion Report*	*Fri 10/31/25*	*Fri 10/31/25*	*0 days*	*438*	*0%*	*0%*	*0 days*	
457	*6.5*	*N/A*	*Agile Development Release 5 Complete*	*Sun 12/14/25*	*Sun 12/14/25*	*0 days*	*############*	*0%*	*0%*	*0 days*	

Attachment 4 - Resource Plan for Reference Only, PPL Resource Notes, Page 1 of 1, Confidential for Clients use Only

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		Gail D	Arun B	Kyle M			Mike S	Kiran B
	PPL	TCS	TCS	TCS	TCS	PPL	TCS	TCS
	1				Offshor	0.2		
PPl Tradtional Role/Task	Product Manager	Sr Scrum Master	Tech Lead & Release Train Architect	Functional SME	Solution Architect	Security / Infrastructure	Release Train Engineer	Contract Analyst
Scrum Master		x						
TCS Tech Lead			x					
Ongoing status reporting		x						
Design Specs			x					
Get Servers for Project								
App Install/Config Server and Client								
test plan writers								
test data/setup/environments								
functionality Testers								
end to end Testers								
interface Definition/Architect								
Interface functional design								
Interface technical design								
Interface Developers								
interface Testers								
vendor and NG liason			x					x
PPL IT process lead		x						x
Defect ID								
Defect Triage	x	x	x					
Defect Analysis & Fix		x	x					
ACR submisssion for Migration/CAB		x	x				?	
Dev/test/prod migrations								
MV90 / Meter Test Hardware								
AMR Hardware								
AMI Hardware								
vendor cloud specialist								
ppl cloud specialist								
cyber security								
network/firewall admin								
on prem os/db/AD admin								
on prem servers/storage								
on prem workstation software								
write overall IT security document			x	x				x

	PPL	Vendo	TCS	TCS	Vendo	TCS	TCS	TCS
	0.4							
PPl Tradtional Role/Task	Product Owner	Tech Lead	Functional Lead	Scrum Master	Vendor Application Developer	TCS Application Developer (Load Profiling)	App Interface Lead	Test Analyst
Scrum Master				x				
TCS Tech Lead		x						
Ongoing status reporting				x				
Design Specs	x	x	x				x	
Get Servers for Project								
App Install/Config Server and Client	?	x	?					
test plan writers			x		x	x		
test data/setup/environments					x	x		x
functionality Testers			x					x
end to end Testers			x					x
interface Definition/Architect	x						x	
Interface functional design	x						x	
Interface technical design							x	
Interface Developers					x	x	x	
interface Testers							x	x
vendor and NG liason								
PPL IT process lead		x		x				
Defect ID	x			x				x
Defect Triage	x		x	x				
Defect Analysis & Fix		x	x	x	x	?		
ACR submisssion for Migration/CAB	?	x	?	x			x	
Dev/test/prod migrations		x				x		
MV90 / Meter Test Hardware	x	x	x					
AMR Hardware	x	x	x					
AMI Hardware	x	x	x					
vendor cloud specialist		x						
ppl cloud specialist								
cyber security								
network/firewall admin								
on prem os/db/AD admin								
on prem servers/storage								
on prem workstation software								
write overall IT security document		x						

	PPL	PPL	PPL	PPL	PPL	TCS	TCS	TCS
	0.05	0.05	0.05	0.05	0.05	Offsho	Offsho	Offshore
PPl Tradtional Role/Task	Security Engineer	DBA and OS Admin	Server/Storage	PPL Workstation Engineer	Cloud Engineer	Test Lead	Cutover Lead	Infrastructure Lead
Scrum Master								
TCS Tech Lead								
Ongoing status reporting								
Design Specs								
Get Servers for Project		x	x					x
App Install/Config Server and Client		?		x				x
test plan writers								
test data/setup/environments						x		
functionality Testers								
end to end Testers								
interface Definition/Architect								
Interface functional design								
Interface technical design								
Interface Developers								
interface Testers								
vendor and NG liason								
PPL IT process lead								x
Defect ID						x		
Defect Triage						x		
Defect Analysis & Fix								
ACR submisssion for Migration/CAB		?	?	?			x	x
Dev/test/prod migrations		?	?	?				x
MV90 / Meter Test Hardware								
AMR Hardware								
AMI Hardware								
vendor cloud specialist								x
ppl cloud specialist								x
cyber security	x							x
network/firewall admin	x							x
on prem os/db/AD admin	x	x						x
on prem servers/storage	x		x					
on prem workstation software	x			x				
write overall IT security document								

						PPL?		
	TCS	TCS	PPL		PPL NG	TCS	TCS	
	Offsh	10 Offs	4		0.4	1	Offsh	6 -Off
PPl Tradtional Role/Task	Integration Lead	Integration Developer	Integration Developer (PPL Systems)	meter lab hardware person + 3 helpers	Business Data Lead	Extraction Developer	Conversion Lead	Conversion Developer
Scrum Master								
TCS Tech Lead								
Ongoing status reporting								
Design Specs	x	x	assit					
Get Servers for Project								
App Install/Config Server and Client								
test plan writers								
test data/setup/environments								
functionality Testers								
end to end Testers								
interface Definition/Architect	x							
Interface functional design		x						
Interface technical design		x						
Interface Developers		x						
interface Testers		x						
vendor and NG liason								
PPL IT process lead								
Defect ID						x	x	x
Defect Triage	x				x	x	x	x
Defect Analysis & Fix	x	x	x	assist	assist	x	x	x
ACR submisssion for Migration/CAB	x				x		x	
Dev/test/prod migrations						x	x	x
MV90 / Meter Test Hardware				x				
AMR Hardware				x				
AMI Hardware				x				
vendor cloud specialist								
ppl cloud specialist								
cyber security								
network/firewall admin								
on prem os/db/AD admin								
on prem servers/storage								
on prem workstation software								
write overall IT security document								

ACRS for Dev and Test before the app is Production
ACRS for Dev/Test after the app is Production
ACRS for Prod before the app is production

Redacted

Resource Plan

PPL RI Metering Implementation

Assumptions

Project Assumptions	
Project Start	8/29/2022

Resource Hours

Phase			PI1	PI1	PI1	PI1	PI1	PI1	PI1	PI1	PI2	PI2	PI2	PI2	PI2	PI2	PI2	PI2	PI2
Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Year	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022
Week Start	8/1	8/8	8/15	8/22	8/29	9/5	9/12	9/19	9/26	10/3	10/10	10/17	10/24	10/31	11/7	11/14	11/21	11/28	12/5
Week End	8/5	8/12	8/19	8/26	9/2	9/9	9/16	9/23	9/30	10/7	10/14	10/21	10/28	11/4	11/11	11/18	11/25	12/2	12/9
	0	0	0	0	40	32	40	40	40	40	40	40	40	40	40	40	8	40	40
						Lab Day											T-giving		

Resource Roles

S.No	Group	Team	Role	Name	Company	Org	Country	Client Role Location	Total Hours	Selected FTE	Average FTE																			
1	Solution Leadership	Program Leadership	Solution Owner	Phil Walnock	PPL	Bus	US	Onshore	326	0.05	0.05					2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
2	Solution Leadership	Program Leadership	Solution Train Engineer	David Bailey	TCS	SI	US	Onshore	6,432	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
3	Solution Leadership	Program Leadership	Solution Architect	Dave VanArsdale	PPL	IT	US	Onshore	3,216	0.50	0.49					20	16	20	20	20	20	20	20	20	20	20	20	0	20	20
4	Release Train Leadership	Business Leadership	Product Manager	TBD PPL	PPL	Bus	US	Onshore	6,432	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
5	Release Train Leadership	Release Train Leadersh	Release Train Engineer	Michael Sihvola	TCS	SI	US	Onshore	6,432	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
6	Release Train Leadership	Release Train Leadersh	Senior Scrum Master	Gail Dsouza	TCS	SI	US	Onshore	6,432	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
7	Release Train Leadership	Release Train Leadersh	Contract Analyst	Dave Solaz	TCS	SI	US	Onshore	6,432	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
8	Release Train Leadership	Technical Leadership	Technical Lead / Release Train Architect	Arunangshu Basak	TCS	SI	US	Onshore	6,432	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
9	Release Train Leadership	Technical Leadership	Functional SME	Kyle Miller	TCS	SI	US	Onshore	1,282	0.20	1.00					8	6	8	8	8	8	8	8	8	8	8	8	0	8	8
10	Release Train Leadership	Technical Leadership	Offshore Solution Architect	Arun Singh	TCS	SI	India	Offshore	7,236	1.00	1.11					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
11	Release Train Leadership	Technical Leadership	Security/Infrastructure SME	TBD PPL	PPL	IT	US	Onshore	1,282	0.20	0.20					8	6	8	8	8	8	8	8	8	8	8	8	0	8	8
12	Sprint Teams	Team 1 - AMR	Product Owner	TBD PPL	PPL	Bus	US	Onshore	1,303	0.40	0.40					16	13	16	16	16	16	16	16	16	16	16	16	0	16	16
13	Sprint Teams	Team 1 - AMR	Functional Lead	Muthuprakash Mayilsamy	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
14	Sprint Teams	Team 1 - AMR	Scrum Master	Mike Norton	TCS-SGV	SI	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
15	Sprint Teams	Team 1 - AMR	Technical Lead	TBD IFS	IFS	Other	US	Onshore	650	0.20	0.20					8	6	8	8	8	8	8	8	8	8	8	8	0	8	8
16	Sprint Teams	Team 1 - AMR	Application Developer	TBD IFS	IFS	Other	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
17	Sprint Teams	Team 1 - AMR	Application Interface Lead	Nishant G	TCS	SI	India	Offshore	3,582	1.00	1.12							45	45	45	45	45	45	45	45	45	45	0	45	45
18	Sprint Teams	Team 1 - AMR	Test Analyst	TBD TCS	TCS	SI	India	Offshore	3,744	2.00	2.23																			
19	Sprint Teams	Team 2 - MV90	Product Owner	TBD PPL	PPL	Bus	US	Onshore	1,303	0.40	0.40					16	13	16	16	16	16	16	16	16	16	16	16	0	16	16
20	Sprint Teams	Team 2 - MV90	Functional Lead	Kyle Miller	TCS	SI	US	Onshore	2,606	0.80	0.79					32	26	32	32	32	32	32	32	32	32	32	32	0	32	32
21	Sprint Teams	Team 2 - MV90	Scrum Master	John Healy	TCS	SI	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
22	Sprint Teams	Team 2 - MV90	Technical Lead	TBD Itron	Itron	Other	US	Onshore	650	0.20	0.20					8	6	8	8	8	8	8	8	8	8	8	8	0	8	8
23	Sprint Teams	Team 2 - MV90	Application Developer	TBD Itron	Itron	Other	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
24	Sprint Teams	Team 2 - MV90	Application Interface Lead	Amit Sonkar	TCS	SI	India	Offshore	3,402	1.00	1.12												45	45	45	45	45	45	0	45	45
25	Sprint Teams	Team 2 - MV90	Test Analyst	TBD TCS	TCS	SI	India	Offshore	3,744	2.00	2.23																				
26	Sprint Teams	Team 3 - AMI CC	Product Owner	TBD TCS	PPL	Bus	US	Onshore	1,303	0.40	0.40					16	13	16	16	16	16	16	16	16	16	16	16	0	16	16
27	Sprint Teams	Team 3 - AMI CC	Functional Lead	Rohit Kumar Ved	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
28	Sprint Teams	Team 3 - AMI CC	Scrum Master	Jim Burrows	TCS-SGV	SI	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
29	Sprint Teams	Team 3 - AMI CC	Technical Lead	TBD L+G	L+G	Other	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
30	Sprint Teams	Team 3 - AMI CC	Application Developer	TBD L+G	L+G	Other	US	Onshore	16,280	5.00	4.96					200	160	200	200	200	200	200	200	200	200	200	200	0	200	200
31	Sprint Teams	Team 3 - AMI CC	Application Interface Lead	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
32	Sprint Teams	Team 3 - AMI CC	Test Analyst	TBD TCS	TCS	SI	India	Offshore	4,824	2.00	2.23																			
33	Sprint Teams	Team 4 - MDMS+VEE	Product Owner	TBD PPL	PPL	Bus	US	Onshore	1,303	0.40	0.40					16	13	16	16	16	16	16	16	16	16	16	16	0	16	16
34	Sprint Teams	Team 4 - MDMS+VEE	Functional Lead	Sudipta Saha	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
35	Sprint Teams	Team 4 - MDMS+VEE	Scrum Master	Tim Chetandra	TCS-SGV	SI	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
36	Sprint Teams	Team 4 - MDMS+VEE	Technical Lead	TBD L+G	L+G	Other	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
37	Sprint Teams	Team 4 - MDMS+VEE	Application Developer	TBD L+G	L+G	Other	US	Onshore	16,280	5.00	4.96					200	160	200	200	200	200	200	200	200	200	200	200	0	200	200
38	Sprint Teams	Team 4 - MDMS+VEE	Application Interface Lead	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
39	Sprint Teams	Team 4 - MDMS+VEE	Test Analyst	TBD TCS	TCS	SI	India	Offshore	4,824	2.00	2.23																			
40	Sprint Teams	Team 5 - Load Profiling	Product Owner	Gary Hartman	PPL	Bus	US	Onshore	1,210	0.40	0.40												16	16	16	16	16	0	16	16
41	Sprint Teams	Team 5 - Load Profiling	Functional/Technical Lead	Tapas Laha	TCS	SI	India	Offshore	3,402	1.00	1.12												45	45	45	45	45	0	45	45
42	Sprint Teams	Team 5 - Load Profiling	Scrum Master	TBD TCS	TCS	SI	India	Offshore	3,402	1.00	1.12												45	45	45	45	45	0	45	45
43	Sprint Teams	Team 5 - Load Profiling	General Developer	Anil, Lakshmi	TCS	SI	India	Offshore	5,904	2.00	2.24																			
44	Sprint Teams	Team 5 - Load Profiling	Application Developer	Hartigen Developer	PPL	Bus	US	Onshore	1,303	0.40	0.40					16	13	16	16	16	16	16	16	16	16	16	16	0	16	16
45	Sprint Teams	Team 5 - Load Profiling	Application Interface Lead	Sankar Radhakrishan	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
46	Sprint Teams	Team 5 - Load Profiling	Test Analyst	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
47	Sprint Teams	Team 6 - Meter Testing	Product Owner	TBD PPL	PPL	Bus	US	Onshore	1,303	0.40	0.40					16	13	16	16	16	16	16	16	16	16	16	16	0	16	16
48	Sprint Teams	Team 6 - Meter Testing	Functional Lead	Rob Ditirro	TCS-SGV	SI	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
49	Sprint Teams	Team 6 - Meter Testing	Scrum Master	Steve Ramos	TCS-SGV	SI	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
50	Sprint Teams	Team 6 - Meter Testing	Technical Lead	TBD Radian	Radian	Other	US	Onshore	650	0.20	0.20					8	6	8	8	8	8	8	8	8	8	8	8	0	8	8
51	Sprint Teams	Team 6 - Meter Testing	Application Developer	TBD Radian	Radian	Other	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
52	Sprint Teams	Team 6 - Meter Testing	Application Interface Lead	TBD TCS	TCS	SI	India	Offshore	3,402	1.00	1.12												45	45	45	45	45	45	0	45	45
53	Sprint Teams	Team 6 - Meter Testing	Test Analyst	TBD TCS	TCS	SI	India	Offshore	1,872	1.00	1.11																			
54	Sprint Teams	Team 6.1 - Deploymen	Deployment App Lead	TBD TCS	TCS	SI	India	Offshore	7,236	1.00	1.11					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
55	Sprint Teams	Team 6.1 - Deploymen	Deployment App Developer	TBD TCS	TCS	SI	India	Offshore	10,206	3.00	3.36												135	135	135	135	135	135	0	135	135

Attachment 4 - Resource Plan for Reference Only, Resource Plan (client facing), Page2 of 10, Confidential for Client Use Only

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56	Sprint Teams	Team 6.1 - Deploymen	Tester	TBD TCS	TCS	SI	India	Offshore	7,236	3.00	3.35																			
57	Sprint Teams	Team 6.2 - Meter Lab/	Meter Lab/HW Lead	TBD TCS	TCS	SI	US	Onshore	2,624	1.00	0.99																			
58	Sprint Teams	Team 6.2 - Meter Lab/	Meter Lab/HW Technician	TBD TCS	TCS	SI	US	Onshore	7,872	3.00	2.98																			
59	Support Teams	Integrations Team	Integrations Lead	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
60	Support Teams	Integrations Team	Scrum Master	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
61	Support Teams	Integrations Team	Integration Developer (Micronaut)	Neha Makhija,	TCS	SI	India	Offshore	34,542	10.00	10.53					90	72	90	90	90	90	450	450	450	450	450	450	0	450	450
62	Support Teams	Integrations Team	Integration Developer (PPL Systems)	TBD PPL	PPL	IT	US	Onshore	12,212	4.00	3.72					20	16	20	20	20	20	160	160	160	160	160	160	0	160	160
63	Support Teams	Conversion Team	Data Lead	TBD PPL	PPL	IT	US	Onshore	1,303	0.40	0.40					16	13	16	16	16	16	16	16	16	16	16	16	0	16	16
64	Support Teams	Conversion Team	Conversion Lead	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
65	Support Teams	Conversion Team	Scrum Master	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
66	Support Teams	Conversion Team	Conversion Developer	TBD TCS	TCS	SI	India	Offshore	20,673	6.00	6.30					45	36	45	45	45	45	270	270	270	270	270	270	0	270	270
67	Support Teams	Conversion Team	Extraction Developer	TBD PPL	PPL	IT	US	Onshore	3,140	1.00	0.96					20	16	20	20	20	20	40	40	40	40	40	40	0	40	40
68	Support Teams	Tech Support	Infrastructure Lead	TBD TCS	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
69	Support Teams	Tech Support	Cloud Engineer	TBD PPL	PPL	IT	US	Onshore	164	0.05	0.05					2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
70	Support Teams	Tech Support	DevOps Engineer	TBD PPL	PPL	IT	US	Onshore	164	0.05	0.05					2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
71	Support Teams	Tech Support	Security SME	TBD PPL	PPL	IT	US	Onshore	164	0.05	0.05					2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
72	Support Teams	Tech Support	Server Storage Engineer	TBD PPL	PPL	IT	US	Onshore	164	0.05	0.05					2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
73	Support Teams	Tech Support	Workstation Engineer	TBD PPL	PPL	IT	US	Onshore	164	0.05	0.05					2	2	2	2	2	2	2	2	2	2	2	2	0	2	2
74	Support Teams	Tech Support	Test Lead	Sonal K	TCS	SI	India	Offshore	3,663	1.00	1.12					45	36	45	45	45	45	45	45	45	45	45	45	0	45	45
75	Support Teams	Tech Support	Cutover Lead	TBD TCS	TCS	SI	US	Onshore	3,256	1.00	0.99					40	32	40	40	40	40	40	40	40	40	40	40	0	40	40
76	Sprint Teams	Release 3-5 Team	Product Owner	TBD PPL	PPL	Bus	US	Onshore	3,176	1.00	0.98																			
77	Sprint Teams	Release 3-5 Team	Functional Lead	TBD TCS	TCS	SI	India	Offshore	3,573	1.00	1.10																			
78	Sprint Teams	Release 3-5 Team	Scrum Master	Jim Burrows	TCS-SGV	SI	US	Onshore	3,176	1.00	0.98																			
79	Sprint Teams	Release 3-5 Team	Technical Lead	TBD TCS	TCS	SI	India	Offshore	3,573	1.00	1.10																			
80	Sprint Teams	Release 3-5 Team	General Application Developer	TBD TCS	TCS	SI	India	Offshore	3,573	1.00	1.10																			
81	Sprint Teams	Release 3-5 Team	MDMS Application Developer	TBD L+G	L+G	Other	US	Onshore	9,528	3.00	2.94																			
82	Sprint Teams	Release 3-5 Team	Application Interface Lead	TBD TCS	TCS	SI	India	Offshore	3,573	1.00	1.10																			
83	Sprint Teams	Release 3-5 Team	Integration Developer	TBD TCS	TCS	SI	India	Offshore	7,146	2.00	2.21																			
84	Sprint Teams	Release 3-5 Team	Test Analyst	TBD TCS	TCS	SI	India	Offshore	7,146	2.00	2.21																			
85																														
86	Support Teams	Tech Support	Technical SME	Dillip Pradham	TCS	SI	India	Offshore	As needed	As needed	As needed																			
87																														
88																														
89																														
90																														

	R1&2 Hrs	R3-5 Hrs	Hours																					
PPL	32,201	8,734	40,935	-	-	-	-	-	232	189	232	232	232	232	408	408	408	408	408	408	-	408	408
TCS	222,528	55,418	277,946	-	-	-	-	-	1,330	1,064	1,375	1,375	1,375	1,375	2,275	2,275	2,275	2,275	2,275	2,275	-	2,275	2,275
IFS	3,906	-	3,906	-	-	-	-	-	48	38	48	48	48	48	48	48	48	48	48	48	-	48	48
Itron	3,906	-	3,906	-	-	-	-	-	48	38	48	48	48	48	48	48	48	48	48	48	-	48	48
L+G	39,072	9,528	48,600	-	-	-	-	-	480	384	480	480	480	480	480	480	480	480	480	480	-	480	480
Radian	3,906	-	3,906	-	-	-	-	-	48	38	48	48	48	48	48	48	48	48	48	48	-	48	48
Hartigen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Verizon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**305,519**	**73,680**	**379,199**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Redacted

PI2	PI2	PI2	PI2	PI3	PI3	PI3	PI3	PI3	PI3	PI3	PI3	PI3	PI3	PI3	PI3	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI5	PI5	PI5	PI5	PI5	PI5	PI5	PI5	PI5	PI5	PI5	PI5	R1	R1	R1	R1	R1	PI6	PI6	PI6	PI6	PI6	PI6	PI6	PI6	PI6	PI6	PI6	PI7
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
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	X-mas + Nys	X-mas + Nys																						Mem Day			Jun Th		Ind Day									Lab Day											T-Giving					X-mas + Nys	X-mas + Nys	
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Attachment 4 - Resource Plan for Reference Only, Resource Plan (client facing), Page4 of 10, Confidential for Client Use Only

Redacted

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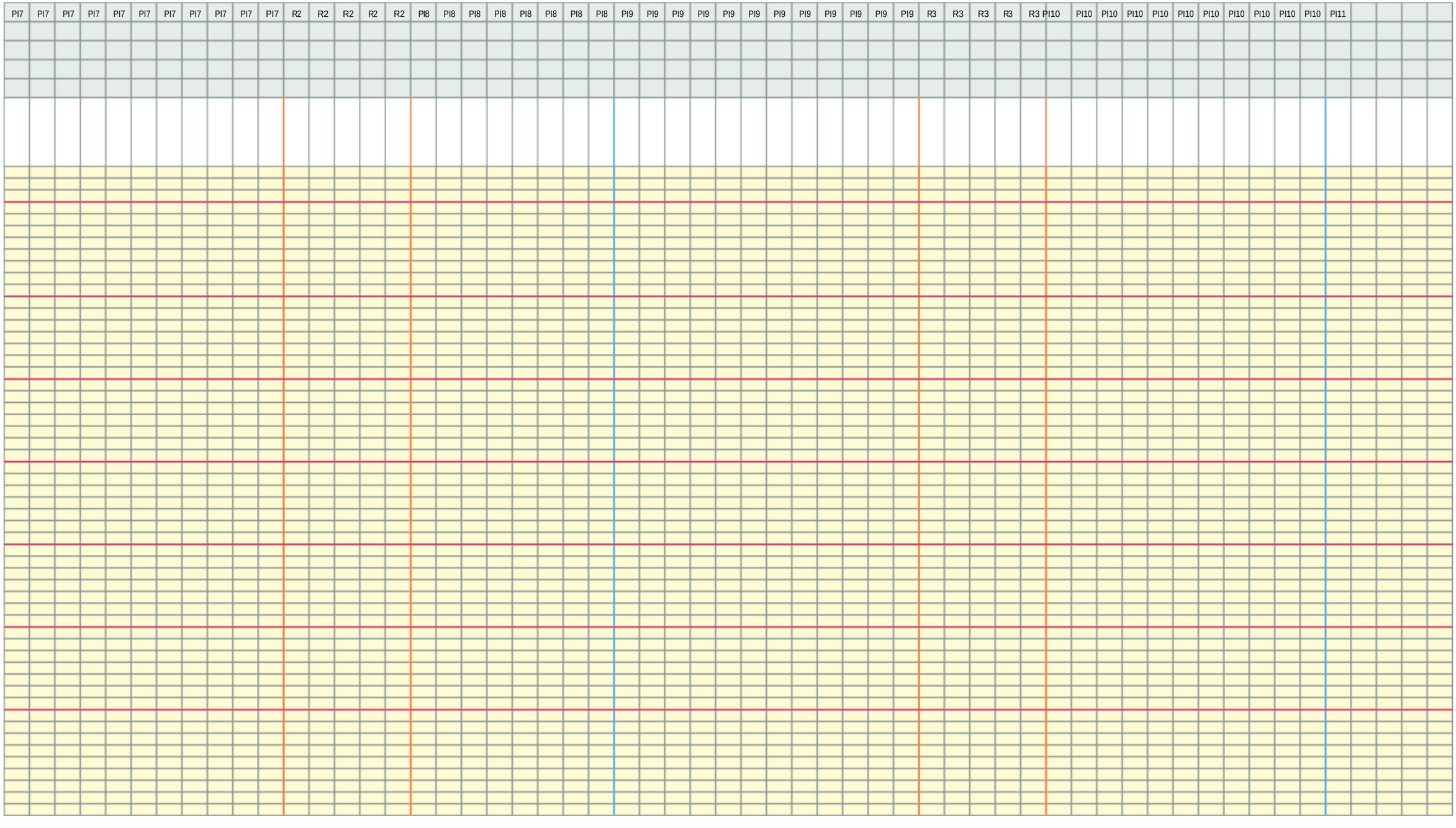
PI7 PI7 PI7 PI7 PI7 PI7 PI7 PI7 PI7 PI7 PI7 R2 R2 R2 R2 R2 PI8 PI8 PI8 PI8 PI8 PI8 PI8 PI8 PI9 PI9 PI9 PI9 PI9 PI9 PI9 PI9 PI9 PI9 PI9 PI9 R3 R3 R3 R3 R3 PI10 PI10 PI10 PI10 PI10 PI10 PI10 PI10 PI10 PI10 PI10 PI11

Attachment 4 - Resource Plan for Reference Only, Resource Plan (client facing), Page6 of 10, Confidential for Client Use Only

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PI11	PI11	PI11	PI1 1																																																					
77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133
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Attachment 4 - Resource Plan for Reference Only, Resource Plan (client facing), Page7 of 10, Confidential for Client Use Only

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2024 2024 2024 2024 2024 2024 2025 2025 2025 2025 2025 202
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1/15 1/22 1/29 2/5 2/12 2/19 2/26 3/4 3/11 3/18 3/25 4/1 4/8 4/15 4/22 4/29 5/6 5/13 5/20 5/27 6/3 6/10 6/17 6/24 7/1 7/8 7/15 7/22 7/29 8/5 8/12 8/19 8/26 9/2 9/9 9/16 9/23 9/30 10/7 10/14 10/21 10/28 11/4 11/11 11/18

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11/25	12/2	12/9	12/16	12/23	12/30	1/6	1/13	1/20	1/27	2/3	2/10

1/19	1/26	2/2	2/9	2/16	2/23	3/1	3/8	3/15	3/22	3/29	4/5	4/12	4/19	4/26	5/3	5/10	5/17	5/24	5/31	6/7	6/14	6/21	6/28	7/5	7/12	7/19	7/26	8/2	8/9	8/16	8/23	8/30	9/6	9/13	9/20	9/27	10/4	10/11	10/18	10/25	11/1	11/8	11/15	11/22
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PI11	PI11	PI11	PI11	PI11	PI11	PI11	R4	R4	R4	R4	R4	PI12	PI12	PI12	PI12	PI12	PI12	PI12	PI12	PI12	PI12	PI12	PI12	PI13	PI13	PI13	PI13	PI13	PI13	PI13	PI13	PI13	PI13	PI13	PI13	R5	R5	R5	R5	R5	R5	R5	SUP	SUP	SUP
134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	

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40	40	40	40	40	40	40	40	40	40	40	40	40	40	32

6/6	6/13	6/20	6/27	7/4	7/11	7/18	7/25	8/1	8/8	8/15	8/22	8/29	9/5	9/12
40	40	32	40	32	40	40	40	40	40	40	40	40	32	40

9/19	9/26	10/3	10/10	10/17	10/24	10/31	11/7	11/14	11/21	11/28	12/5	12/12	12/19	12/26
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																																														Onboarded
																																														In Process
																																														Onboarded TCS
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																																														Onboarded
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																																														JD Needed

Attachment 4 - Resource Plan for Reference Only, Resource Plan (client facing), Page16 of 10, Confidential for Client Use

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																																														Not needed immediately
																																														JD Drafted
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698	698	698	698	698	698	698	698	698	698	698	698	698	698	558	698	698	558	698	558	698	698	698	698	698	698	698	698	558	698	698	698	698	698	698	698	698	698	698	698	-	698	698	698	-	-
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PUC 6-4

Request:

In response to RR-2 in this matter, the Company provided the differences in meter functionality between the three PPL affiliates. Assuming approval of the chosen meters in RI, what would it cost to implement in Rhode Island the functionalities currently available to the utility and its customers in Pennsylvania. As part of this response, please list each functionality the Company is including.

Response:

The Company interprets this question as asking "what is the cost to install an AMI 2.0 meter, as proposed for Rhode Island, with AMI 1.0 communications and systems capability that currently exist in Pennsylvania?" This scenario is impracticable because the AMI 2.0 meter is not backwards-compatible with the AMI 1.0 communication network in Pennsylvania. Given this, it is not always feasible to pick individual functionalities from either AMI 1.0 or AMI 2.0 and transplant them to a system using the other version. Notwithstanding, the Company has prepared estimates based upon the hypothetical combination to answer the question. The estimated cost impact for near-real time communications under this hypothetical combination is an estimate, as the network would need to be redesigned and upgraded to be technically viable.

As background, Pennsylvania currently provides 15-minute interval data back from the meter through the network to the Head-end system every 4-6 hours. Data presentment to the customer is made available after 24 hours via the portal. To offer near real-time capabilities as proposed in Rhode Island, that is, to bring back 15-minute interval data every 15-20 minutes and provide raw data in the customer presentment portal after 30-45 minutes, requires a communication network design capable of handling this quantity and frequency of data.

The Company had to indirectly estimate the cost of implementing AMI 2.0 meters with AMI 1.0 communications and systems capability from the estimated costs in the AMF Business Case BCA. The Company started with the total estimated BCA costs and then backed out the costs associated with functionalities proposed for Rhode Island but not currently available in Pennsylvania. The chart below captures the functionalities, and their respective Rhode Island cost estimates, for capabilities that are proposed in the Rhode Island Energy AMF Business Case but not currently provided or offered in Pennsylvania. This estimate has quantified and removed the three Customer Portal Technologies and Grid Edge computing, time-varying rate functionalities beyond basic time-of-use rates, and near-real time data communications because Pennsylvania currently does not have these functionalities. The estimated cost to install an AMF 2.0 meter, as proposed in Rhode Island, with AMF 1.0 communications and systems capability is

20-year nominal costs of $269.23M, as determined by deducting the impacted BCA cost impact (in the right column of the table) from the nominal cost of the AMF in the Business Case.

Incremental Functionality in RI	Estimated BCA Cost Impact
Near-real time communications Open, interoperability protocol - Wi-SUN	$10.76M in annual SaaS fees to year 20 (OpEx)
Customer Portal Technology: - CP: Solar Marketplace - CP: Carbon Footprint Calculator - CP: C&I and Multi-Family Portfolio View	$1.25M implementation (CapEx) $1.12M steady state operations to year 20 (OpEx)
Time Varying Rates - TVR Foundational - Enabled TVR	$3.02M implementation (CapEx) $1.73M steady state operations to year 20 (OpEx)
Grid Edge - Load Disaggregation & Waveform Analytics - Grid-Edge Computing (writing applications to the meter)	$1.90M annual SaaS fees to year 20 (OpEx)

A significant advantage of the proposed AMI 2.0 meters in the Rhode Island Energy AMF Business Case is the opportunity for TVR and grid-edge capabilities, which is facilitated by near-real time data. The capability of the proposed Rhode Island network is derived from Wi-SUN, the features of the communication system offered by present-day technology, and the design of the network. By attempting to align the proposed Rhode Island Energy RF network to the Pennsylvania 1.0 version communication system, the promise of the benefits and customer engagement that is enabled by near-real time data, would not currently be possible. Doing so would also defeat the purpose of installing AMI 2.0 meters in the first instance, and the loss of functionalities and additional costs and risks associated with a future upgrade to an AMI 2.0 network would, in the Company's view, outweigh any potential cost savings.

PUC 6-5

Request:

Please list provide a list of each license and the functionality it supports. Please list the license fee that will be allocated as O&M annually for each on the list through the expected end of the next rate case.

Response:

Table 1 below includes a list of the services that Landis+Gyr is providing to Rhode Island Energy in connection with the proposed AMF project and the associated Service Fees pursuant to the terms and conditions of the Software as a Service and Services Agreement ("SaaS Agreement"), dated as of January 30, 2023, by and between PPL Services Corporation and Landis+Gyr. In its response to PUC 1-14 (filed January 19, 2023), the Company used the term "license" and "license fees" to describe certain Outside Services costs that comprise Line 8 on Schedule SAB/BLJ-1, Pages 1-2, which are largely comprised of the annual O&M costs for the Headend, WiSun and Meter Data Management System. The term "license fee" is a misnomer in that the annual costs are referred to as "Service Fees" in the applicable Service Order(s) attached as Schedule B to the SaaS Agreement. *See generally* Section 6 of the SaaS Agreement (describing the "Fees" to be charged under the SaaS Agreement and the applicable Service Order(s) or SOW(s)). The Service Fees include a nonexclusive right and license for the Company to access and use the Cloud Software, SaaS Services, Documentation, and Landis+Gyr Materials (as each term is defined in the SaaS Agreement), including in operation with other software, hardware, systems, networks and services.[1] (*See* Section 2.2 of the SaaS Agreement). The Service Fees are calculated based on the deployed endpoints and charged monthly by Landis+Gyr as set forth in the applicable Service Order(s) identified in Table 1 below. The Service Fees will be allocated as O&M annually and are specific to the ongoing operations of the cloud solutions provided by Landis+Gyr.

The following Table 1 maps the services description from Attachment PUC 1-14 to the applicable Landis+Gyr Service Fee in the SaaS Agreement, together with the functionality it supports.

[1] These services include hardware, the operating system, upgrades and patching, daily system operations and maintenance, monitoring, back-up and disaster recovery, cyber security, data storage, data availability, and data access. Only the Service Fees for the functions listed in Table 1 are included in the annual forecasted O&M of the revenue requirement.

Table 1

Attachment PUC 1-14 Description	**Landis + Gyr Service Fee Description**	**Service Fee - SaaS Reference**	**Functionality**
Annual License (SaaS) – Headend **and** Annual License (SaaS) &Support – WiSun (Revenue Year)	SaaS Command Center with Wi-Sun Service Fee – Production, Disaster Recovery, and Lower Environment	Service Fees are described in Schedule B, Form of Service Order No. 1 and Pricing: SaaS Command Center with Wi-Sun Pricing (pages 47-48 of 96).	Systems that receive the stream of meter data from the field making the data available for other systems; Wireless Smart Utility Network is a wireless communication standard that enables seamless connectivity between smart-grid devices.
Annual License (SaaS) – MDMS (Revenue Year)	SaaS MDMS Service Fee – Production, Disaster Recovery, and Lower Environment	Service Fees are described in Schedule B, Form of Service Order No. 2 and Pricing: SaaS MDMS AMR Pricing and SaaS MDMS AMI Pricing (pages 51-53 of 96).	System that collects and stores meter data from a head end system and processes that data into information that can be used by other applications including Network operations, customer information system, analytics and asset management
Network Analytics/AGA-SaaS (Revenue Year)	SaaS Metering Analytics – Production Environment Service Fee	Service Fees are described in Schedule B, Form of Service Order No. 3 and Pricing: SaaS AGA Pricing (pages 56-57 of 96).	Analysis of network data and statistics to identify trends and patterns

PUC 6-6

Request:

At the end of the Technical Session, Dr. Bianco asked if the meters have LTE capability to which the Company did not provide a definitive answer. RR-3 states that the Proposed RIE AMF Meter – Residential & Commercial has the following feature: Communications Frequency/Standard by Type: Cellular: LTE-M. Do they have the ability to communicate via a cellular network thereby avoiding the need for an RF Mesh Network?

Response:

The Company believes that the question is referring to RR-2, rather than RR-3. The Company's response to RR-2 included technical specifications for the Landis+Gyr Revelo meter. The specific feature that the question is referring to is provided again below for convenience.

Connectivity			
Feature	**PA & KY – Residential**	**PA & KY - Commercial**	**Proposed RIE AMF Meter – Residential & Commercial**
Communications Frequency/ Standard by Type	MESH: 902 – 928MHz Cellular: LTE-M HAN: ZigBee	MESH: 902 – 928MHz Cellular: LTE-M HAN: ZigBee	MESH IP: 902 – 928MHz Wi-SUN: 900MHz Cellular: LTE-M HAN: Wi-Fi

The information in the right-most column was intended to mean that a Landis+Gyr Revelo meter uses a specific communication module that enables either radio frequency (RF) mesh or cellular (LTE-M) communication modules. Therefore, the AMF meter is technically capable of supporting either communication method, but currently not both communications methods in the same meter.

The AMF design for Rhode Island Energy was based upon a 100 percent RF mesh communication system. Accordingly, 100 percent of the AMF meters are specified to communicate via RF mesh through a fully deployed communication network that uses Wi-SUN. The Rhode Island Energy proposed AMF meter will not include LTE capability and cannot communicate via a cellular network. Rhode Island Energy's proposed approach mirrors the approach that was successfully used in Pennsylvania and is now being deployed in Kentucky. Section 3.2, Bates pages 32-42 of the AMF Business Case describes Rhode Island Energy's

alternatives analysis that concluded a full-scale approach using RF mesh communications with near-real time capability offers the best option for Rhode Island customers after considering aspects such as cost, system life expectancy, functionality, flexibility and resiliency.

PUC 6-7

Request:

Please include an explanation of what functionalities the Company can implement with cellular data, and the associated costs, with all assumptions explained. What functionalities require the proposed high frequency, high speed RF Mesh Network that would be lost with a cellular network or would be cost prohibitive?

Response:

There are no differences in functionalities that can be delivered between the RF Mesh and Cellular/LTE network implementations, but using 100 percent RF Mesh is more cost effective. Direct cellular to meter communication costs would be ~76 percent higher due to higher meter hardware and on-going leased communication costs. The RF Mesh network will enable the functionalities outlined in Section 6 of the Advanced Meter Functionality Business Case.

A functionality assessment and comparison of metering solutions for customer and grid technologies was included in the AMF Business Case, which was summarized in Figure 3.1, Bates page 35, and is also provided below:

Figure 3.1: Functionality Assessment of Metering Solutions and Customer and Grid Technologies

	AMF Functionality/Use Case	Complete Metering Solutions				Complementary Customer and Grid Technologies		
		Current AMR	Targeted Enhanced AMR (for opt-in TVR)	Targeted AMF*	Full AMF	End User Solutions**	Transformer-Level Sensor	Pole-Top Reader***
Customer-facing	CEMP – Near Real Time Customer Data Access	○	○	●	●	●	○	○
	CEMP – Customer Energy Insights	◐	◐	●	●	◐	○	◐
	CEMP – Bill Alerts	○	○	●	●	◐	○	◐
	CEMP – Load Disaggregation	○	○	●	●	●	○	○
	CEMP – Green Button Connect	○	○	●	●	○	○	◔
	Integration w/ In-Home Technologies	○	○	●	●	●	○	○
	Time Varying Rates - Customer & DER	○	◔	●	●	○	○	○
	Remote Interval Meter Reading	○	○	●	●	○	○	○
	Remote Meter Configuration	○	○	●	●	○	○	○
	Remote Meter Investigation	○	○	●	●	○	○	○
	Remote Electric Connect and Disconnect	○	○	●	●	○	○	○
	Theft Detection	◔	◔	◔	●	○	○	◔
Grid-facing	Voltage Measurement – Voltage Conservation	○	○	◔	●	○	◐	○
	Outage Detection – Automated Notification	○	○	◔	●	○	◐	◔
	Time Varying Rates – Load Shift	○	○	◕	●	○	○	◔
	Load & Voltage Data – Situational Awareness/Forecasting	○	○	◔	●	○	◐	◔

*Harvey Balls for Targeted AMF indicate functionality enabled for customers who adopt AMF meters, not theentire population

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The Targeted AMF deployment, represented by the third column of Harvey Balls, assumed a targeted deployment of cellular-based AMF meters that supports some enhanced customer benefits. That compares to the Rhode Island Energy Full-scale RF deployment represented in the fourth column of Harvey Balls. The Targeted AMF deployment would have higher meter and O&M costs and would be limited in its ability to provide comprehensive grid-facing visibility compared to a full-scale RF alternative.

If a full-scale RF deployment is compared to a full-scale cellular-based deployment, the functionality that can be delivered between the RF mesh and Cellular/LTE network implementations would be similar with respect to near-real time data availability; however, using 100 percent RF mesh is much more cost effective. Direct cellular to meter communication costs would be approximately 76 percent higher than the RF alternative because the cellular meter hardware is more expensive and there would be on-going leased cellular communication costs. Section 3.2, Bates page 32 - 42 of the AMF Business Case describes Rhode Island Energy's alternatives analysis that concluded a full-sale approach using RF mesh communications with near-real time capability offers the best option for Rhode Island customers after considering aspects such as cost, system life expectancy, functionality, flexibility, and resiliency. The functionalities outlined in Section 6 of the Advanced Meter Functionality Business Case and the BCA are based upon costs and benefits achieved from a full RF Mesh network deployment.