

Via Electronic Mail and Hand Delivery

October 4, 2019

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

Re: **Docket 4963 – 2019 Gas Cost Recovery Filing
Supplemental Response to Division Data Request 1-6**

Dear Ms. Massaro:

Enclosed please find 10 copies of National Grid's¹ supplemental response to the Division of Public Utilities and Carriers' (Division) Data Request 1-6 issued on August 16, 2019 and responded to on September 6, 2019 in the above referenced docket.

Thank you for your attention to this matter. If you have any questions, please contact me at 401-709-3359.

Very truly yours,



Steven J. Boyajian
Enclosure

Copy to: Docket 4963 Service List
Leo Wold, Esq.
Al Mancini, Division
John Bell, Division
Jerome D. Mierzwa, Consultant to the Division

¹ The Narragansett Electric Company d/b/a National Grid (the Company)

Docket No. 4963 – National Grid – 2019 Annual Gas Cost Recovery Filing (GCR) - Service List as of 8/30/2019

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Supplemental Response
Division 1-6

Request:

Reference the first full paragraph of the 2019 Gas Long-Range Supply Plan on page 30, last two sentences. Please explain whether Algonquin or Tennessee is requiring the Company to address the hourly imbalances. Provide supporting documentation/communications.

September 6, 2019 Response:

The first full paragraph of the 2019 Gas Long-Range Supply Plan on page 30, last two sentences, state: "The results show an hourly imbalance at several of the Company's gate stations on both Algonquin and Tennessee. As discussed above, the Company will need to contract for additional resources to meet forecasted peak hour requirements for the upcoming 2019/20 winter season, as well as all subsequent winters of the forecast period."

On July 18, 2019, Algonquin held a meeting to discuss commercial operations for the upcoming winter season (2019/20). As part of this discussion, Algonquin provided draft posting language for Operational Flow Orders (OFO), including a discussion of how Algonquin plans to roll out OFOs this winter. Please see Attachment DIV 1-6-1 for the slide deck Algonquin presented at the meeting; Attachment DIV 1-6-2 for a draft exemplar Daily Lateral OFO; Attachment DIV 1-6-3 for a draft exemplar Daily Lateral Hourly Warning; and Attachment DIV 1-6-4 for a draft exemplar Hourly Lateral OFO.

Both Algonquin's tariff and Tennessee's tariff allow for the imposition of hourly flow restrictions. Tennessee has not issued any warnings regarding potential hourly limitations, informed its customers of any intention to implement hourly OFOs, nor shared draft language and associated protocols for how it would implement such OFOs. Before last winter, Algonquin had not implemented such warnings and/or OFOs. The Narragansett Electric Company d/b/a National Grid nevertheless must be prepared for such a circumstance on both pipelines going forward, as the interstate pipelines feeding New England are constrained and continue to be more constrained each year.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 4963
2019 Annual Gas Cost Recovery Filing
Responses to the Division's First Set of Data Requests
Issued August 16, 2019
Responded September 6, 2019
Supplemented October 4, 2019

Supplemental Response:

Please see the PowerPoint slide deck provided as Attachment DIV 1-6-5. On September 11-12, 2019, Enbridge (Texas Eastern and Algonquin's parent company) held a meeting to further discuss operations for the upcoming winter season (2019/20). As part of this discussion, Enbridge provided an Operation Status Update on both Texas Eastern (one of the pipelines that feeds into Algonquin) and Algonquin. The Narragansett Electric Company holds capacity on both Texas Eastern and Algonquin. The Company reasonably anticipates that the capacity issues discussed in Attachment DIV 1-6-5 could bear on Algonquin's decisions with respect to hourly flow limitations.

Algonquin Commercial Operations – Winter 19/20



July 18, 2019

Agenda



- Safety moment
- Atlantic Bridge project & outages updates
- Communication Plan
- Winter Operations
 - OFOs and implementation plan
- AGT Customer Group Short Term Question Discussion
- Feedback and discussion on next steps



Communications Plan – Winter 19/20

- **Notification of Meeting**
 - Based on weather, either EHDD of single day, series of days, or transition temperatures
 - Intent to schedule calls two days before weather event with gas control, scheduling and commercial coordination
- **Conference Call Format:**
 - Algonquin to provide publicly available information and current status of the AGT system
 - Each company represented to present Winter Operations Status update to provide AGT with a working knowledge of potential issues and solutions for the upcoming weather event
 - List LNG/CNG availability & system ready status (i.e. manned)
 - Current/projected system challenges & issues
 - Projected load forecast

Winter Operations – OFO implementation



- Communications Procedure for weather events
- Implementation plan for OFO’s
 - Standard system-wide daily OFO with penalties (as seen winter 2018-2019)
 - If necessary, we will issue the “Daily – [G/J/C, etc] Lateral OFO” to penalize short positions on the specific lateral on a daily basis
 - If the lateral-specific OFO is not sufficient, and if there is enough time to provide a warning - “Warning - Hourly – Lateral 6%...” to warn shippers about their hourly takes on the laterals.
 - This may be done at the same time as the lateral daily OFO due to the timing issues if events arise suddenly.
 - If the daily lateral OFO’s and hourly warning are not sufficient or if customers are not reacting as required, we will issue the “Hourly – Lateral OFO” posting



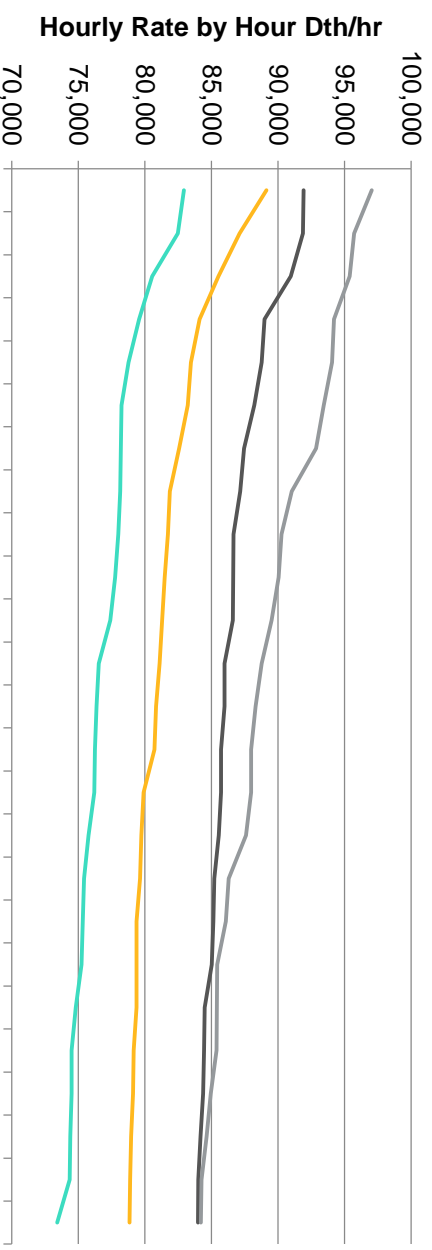
AGT Hourly Rate – Winter hourly load data

Example of Hourly Data from Chart + power plant data

AGT Hourly Rate - Winter LDC Load Duration Top 25

Winter 18/19 LDC flows Top 25			
Gas Date	Production Time	Actual Quantity (DTH/D)	Actual Quantity Dth/hr
1/20/2019	06:00 AM	2,328,737	97,031
1/30/2019	06:00 AM	2,297,095	95,712
1/20/2019	07:00 AM	2,288,916	95,371
1/20/2019	05:00 AM	2,260,932	94,205
1/30/2019	05:00 AM	2,257,608	94,067

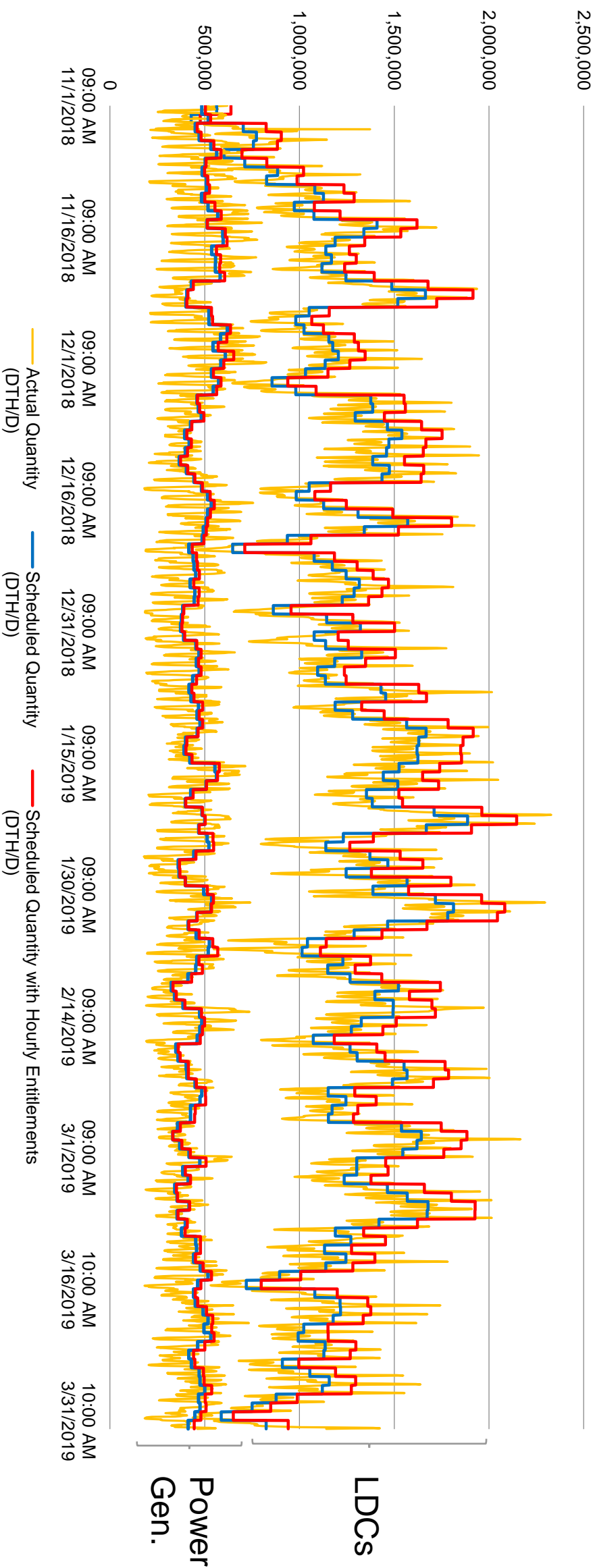
Power Plant hourly data corresponding to LDC Top 25 peak hours			
Gas Date	Production Time	Actual Quantity (DTH/D)	Actual Quantity Dth/hr
1/20/2019	06:00 AM	527,770	21,990
1/30/2019	06:00 AM	741,168	30,882
1/20/2019	07:00 AM	582,891	24,287
1/20/2019	05:00 AM	455,504	18,979
1/30/2019	05:00 AM	617,418	25,726



- **Power plant peak hours**
 - When we applied the same criteria – top hours of power plant load for the last two winters, the power plant peak hours occurred in Nov and two in Dec – and almost all in the afternoon.
 - Power plant peak hours did not correspond with LDC peak hours
 - When evaluating power plant load on the LDC peak hour days (ie Jan 2019), they made up 18-24% of the load



LDC and Power Gen. Historical Volumes – Winter 18/19



LDC Actual Takes on an hourly basis exceeded hourly entitlements by 2.9 Bcf this winter and power generators exceeded by 3.3 Bcf this winter

Draft – For Discussion Purposes Only – used “G Lateral” as illustrative example

In order to maintain the operational integrity of the system, Algonquin Gas Transmission, LLC (AGT) is issuing an Operational Flow Order (OFO) pursuant to Section 26 of the General Terms and Conditions of AGT's FERC Gas Tariff effective 9:00 AM CCT, XXXXX XX, 2019 to all parties on the G Lateral, with the exception of those Operational Balancing Agreements required by FERC regulations, on the G Lateral.

This OFO does not affect the ability of AGT to receive or deliver quantities of gas for scheduled nominations to any customer or pipeline except for those customers on the G Lateral.

During the effectiveness of this OFO, all parties must be balanced such that actual deliveries of gas out of the system must be equal to or less than scheduled deliveries. The penalty shall apply to each dekatherm of actual delivery quantities that exceeds the greater of 2,000 Dth or 102% of scheduled delivery quantities. The penalty will be equal to three times the arithmetic average of daily Platts Gas Daily "Daily Price Survey" posting for the High Common price for "Algonquin, city-gates" for the day on which such violation occurred as indicated in AGT's General Terms and Conditions Section 26.8. Additionally, OBA parties with meters located other than on the G lateral will not be allowed to utilize undertakes at those meters to offset overtakes at meters located on the G lateral.

AGT requests that customers/point operators on the G lateral be aware of the impact non-ratable hourly takes from the system may have in causing delivery pressures reaching lower than desired levels. As a reminder, AGT's G lateral is not designed to sustain delivery pressures above contract levels while making non-ratable/accelerated deliveries above scheduled quantities for more than 6 consecutive hours, to be followed by flows below scheduled quantity for the balance of any 24 hour period.

Furthermore, if customers/point operators don't manage hourly takes from the system, 1) delivery pressures will be impacted and /or 2) AGT may be required to impose further restrictions or courses of action in order to maintain the operational integrity of the system including the issuance of an hourly OFO pursuant to General Terms and Conditions Section 26.7(d).

In addition, AGT will not permit retroactive nominations from upstream interconnects governed by a FERC gas tariff to avoid an OFO penalty.

AGT will inform customers via EBB when this OFO will be lifted.

Please contact your operations account representative should you have any questions.

Draft – For Discussion Purposes Only – used “G Lateral” as illustrative example

With the impending colder weather beginning Wednesday January 30, 2019 and in order to maintain the operational integrity of the G system, Algonquin Gas Transmission, LLC (AGT) is requesting all customers/point operators on the G system to fully nominate their 6% “G” system contracts to the appropriate “G” system meter station. In the event customers do not nominate in such a manner, point operators will be limited in their ability to take non-ratable/accelerated deliveries above scheduled volumes to these meters for 6 consecutive hours.

Furthermore, AGT requires that customers/point operators on the G lateral be aware of the impact non-ratable hourly takes from the system and the impact it could have on system operations. Delivery pressures could reach lower than desired levels to the extent point operators’ hourly takes exceed their maximum hourly transportation quantity (MHTQ) based on their scheduled quantities. AGT's G lateral is not designed to sustain delivery pressures above contractual pressure obligations if:

- 1) Point operators’ hourly rates are exceeding their MHTQ levels based on nominated quantities or
- 2) Point operators’ hourly rates are exceeding 1/24th of the daily nominated quantity for more than 6 consecutive hours (or greater than 6 hours on any gas day)

Furthermore, if customers/point operators do not manage hourly takes from the system within their scheduled MHTQ limits AGT may be required to impose further restrictions or courses of action in order to maintain the operational integrity of the system including the issuance of an hourly OFO pursuant to General Terms and Conditions Section 26.7(d).

Please contact your operations account representative should you have any questions.

Draft – For Discussion Purposes Only – used “G Lateral” as illustrative example

In order to maintain the operational integrity of the system, Algonquin Gas Transmission, LLC (AGT) is issuing an Hourly Operational Flow Order (OFO) pursuant to Section 26 of the General Terms and Conditions of AGT’s FERC Gas Tariff effective 9:00 AM CCT, XXX X, XXXX to all parties with meters on the “G” System.

This OFO does not affect the ability of AGT to receive or deliver quantities of gas for scheduled nominations to any customer or pipeline except for those customers with meters on the “G” System.

During the effectiveness of this Hourly OFO, all point operators on the “G” system must be balanced such that actual deliveries of gas out of the system each hour must be equal to or less than the hourly contractual rights of the scheduled deliveries to their meters on the “G” System. Additionally, OBA parties with meters located on other mainline or lateral systems will not be allowed to utilize undertakes at those meters located on other mainline or lateral systems to offset overtakes at meters located on the “G” system.

The penalty shall apply to each dekatherm for any hour in which the actual delivery quantity exceeds 102% or 100 Dth of the hourly contractual rights of the scheduled quantities to the point operator’s meters located on the “G” system. The penalty will be equal to three times the daily Platts Gas Daily “Daily Price Survey” posting for the High Common price for "Algonquin, city-gates" for the day on which such violation occurred as indicated in AGT’s General Terms and Conditions Section 26.8. AGT will utilize the end of day scheduled quantities to calculate the hourly contractual rights for such gas day. In addition, AGT will not permit retroactive nominations to avoid an OFO penalty (except for primary firm no-notice nominations).

AGT requires that customers/point operators on AGT be aware of the impact non-ratable hourly takes from the system may have in causing delivery pressures reaching lower than desired levels. As a reminder, AGT's system is not designed to sustain delivery pressures above contract levels while making non-ratable/accelerated deliveries above scheduled quantities for more than 6 consecutive hours, to be followed by flows below scheduled quantity for the balance of any 24 hour period.

Furthermore, if customers/point operators don't manage hourly takes from the system, 1) delivery pressures will be impacted and /or 2) AGT may enforce the above mentioned 6 consecutive hour limit at accelerated deliveries for those with 6% contracts. 3) AGT may be required to impose further restrictions or courses of action in order to maintain the operational integrity of the system.

This Hourly OFO will remain in effect until further notice.

Please contact your Operations Account Representative should you have any questions.



welcome



Fall Customer Meeting
Hershey, Pennsylvania | September 11 - 12, 2019

Agenda



Welcome & Introduction	Bill Yardley
Pipeline Integrity	Andy Drake
Gas Operations Update	Ryan James
Construction Update	Kerry Puckett
BREAK	
Regulatory Update	Patti Fitzpatrick
New Pipeline Development	Bobby Huffman
The Generational Advantage	Karen McCullough, Guest Speaker
Closing Remarks	David Bryson
Afternoon Activities	Laura Townsend

Welcome

Bill Yardley

EVP & President, Gas Transmission and Midstream



Fall Customer Meeting
Hershey, Pennsylvania | September 11 - 12, 2019

Integrity Program Update

Andy Drake

VP, Asset Integrity Gas Transmission and Midstream



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Incident Updates



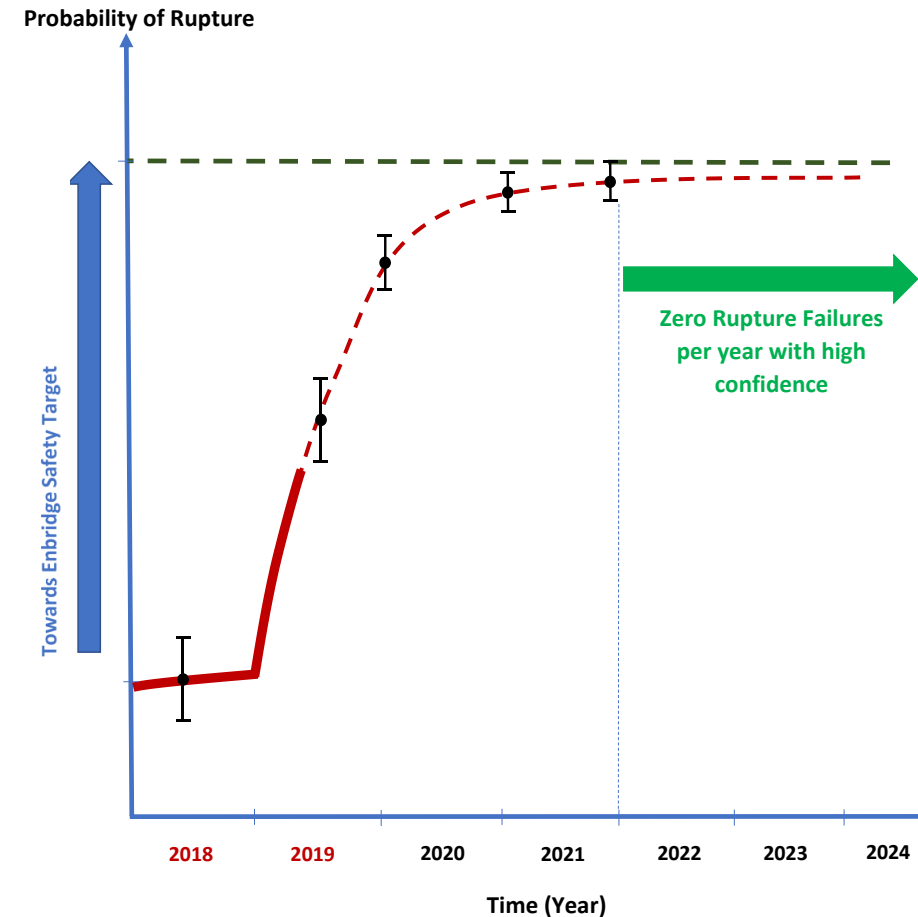
	Shelley, BC	Pleasant Shade, TN	Noble County, OH
Incident Description:	<ul style="list-style-type: none"> • October 9, 2018: Rupture and fire occurred on the 36” Line 2 on the BC Pipeline • NEB instituted pressure restriction of 15% on Line 2 	<ul style="list-style-type: none"> • December 15, 2018: Rupture occurred on East Tennessee Natural Gas’ 22” Line 3100 • Self imposed a pressure restriction of 20% on the segment and adjacent similar pipes 	<ul style="list-style-type: none"> • January 21, 2019: Rupture and fire occurred on the Texas Eastern 30” diameter Line 10 in rural Noble County, OH • Two adjacent pipelines (Line 15 & 25) were shut in and pressure restrictions implemented
Key Findings & Actions:	<ul style="list-style-type: none"> • Near neutral-pH Stress Corrosion Cracking (SCC) • Crack ILI (Inline Inspection) inspection frequency • Immediate changes were made to the SCC Hazard Management Plan to reduce the maximum re-inspection interval to seven years • Learnings extended to UST • Return to full service is on track to be complete November 2019 	<ul style="list-style-type: none"> • Pipe manufactured using low-frequency electric resistance welded (LFRW) long seam technology • The failure was due to a complex, unusual and fast growing process related to hydrogen induced cracking in a hardened long seam • The pressure reduction was just lifted as a result of integrity assessment activities 	<ul style="list-style-type: none"> • Lateral displacement of a landslide feature that occurred slowly over the pipeline’s 67 year operating history • Self imposed a pressure restriction of 20% on pipes with similar Geo Hazards risk • Conventional land movement monitoring techniques could not detect the slow creep movement over time • 7 similar incidents experienced by other operators in last 18 months • JIP with other operators to identify more effective line monitoring techniques • Comprehensive geohazard assessment conducted across UST • All pressure restrictions lifted in conjunction with Geo Hazards program

Approach Shift

Pipeline Integrity Update

Top quartile performance not good enough

- Mindset and approach shift required to achieve zero ruptures with confidence
- Revised organization to create dedicated focus on Asset Integrity
- Performed Fitness For Service assessment on **7 most likely threats** – completed in June
 - Conservative assumptions in uncertainty
 - Created prioritized plan for each threat
 - For highest risk segments, immediate remediation defined
 - Pressure restrictions applied in highest risk areas/areas of high uncertainty until inspections conducted
 - Next iteration of assessments defined - schedule will be driven by findings from first tranche of inspections
 - Predictability and scheduling will improve as we complete first phase
- Moving from Industry Benchmarking/Standards to quantitative assessment approach (more data/inspection results) to drive certainty



Lincoln, Co KY Incident



- On August 1, 2019, an incident occurred on Line 15, resulting in the death of one person and injuries to at least six others.
- Most of Line 15 was constructed between 1952 and 1957 and is largely comprised of API X52 pipe manufactured by A. O. Smith.
- Both lines 10 and 25 were temporarily shut down until the lines could be assessed for possibility of damage from the incident. Both lines have been returned to service.
- Line 15 from Kosciusko, MS to Uniontown, PA has been isolated from the parallel pipelines and its pressure reduced by 20% per PHMSA's CAO.
- The actual cause of the failure has not been determined. The NTSB is conducting a metallurgical investigation to determine the exact cause.
- Efforts are underway to assess all segments of Line 15 that have pipe manufactured by A.O. Smith of similar vintage and type to the pipe involved in the failure.
- The recent incident in Kentucky has given us cause to reevaluate additional threats associated with A.O. Smith pipe, specifically manufacturing defects including long seam weld fusion and hard spots.
- The investigation has given us cause to revalidate the data provided in previous inspections and the confidence in conclusions regarding previous hard spot assessments.
- Given that our confidence in these previous assessments is in question, we have taken voluntary pressure restrictions of approximately 10% from the last 60 day high on other parts of UST system that contain A.O. Smith-manufactured pipe of similar nature.



Highest Risk Segment Remediation Overview

GeoHazards	Internal /External Corrosion	Stress Corrosion Cracking
<ul style="list-style-type: none"> • 15 segments restricted • Tool runs and high strain analysis completed • All remediation work completed and full pressure restored early 2Q19 	<ul style="list-style-type: none"> • 10 segments restricted • 13 segments with internal corrosion & 12 with external corrosion • All but 3 tools runs have been completed • Remediation planned to be completed on all but those 3 lines prior to November 	<ul style="list-style-type: none"> • 11 segments restricted by 10% • All but 1 tool run complete • Vendor reports take 4 months – receipt now thru late Oct • Working to complete remediation by mid November • 16 accelerated runs currently being scheduled before year end
Selective Seam Weld Corrosion	Corrective Action Order	A.O. Smith Pipe
<ul style="list-style-type: none"> • 10 segments restricted by 5% in May – Additional 16 segments identified and restricted in August based on field inspection results • Tool runs for each above are required – scheduling in progress – goal is to have runs done prior to YE • Remediation work is being prioritized - complete 4Q19-2Q20 	<ul style="list-style-type: none"> • 10 segments restricted by 20% per PHMSA – Line 15 Kosi-Uniontown in conjunction with KY incident • Tool runs and additional tests/mitigation measures being planned • PHMSA approval required to restore service • Targeting 2Q20 for return to full service pending results of NTSB Investigation 	<ul style="list-style-type: none"> • 39 additional segments restricted by 10% • Hard Spot Tool validation in progress • Working aggressively to secure tools and schedule tool runs • Sections will be returned to service as completed • Most remediation work planned to be complete 3Q20 pending results of NTSB investigation

Summary of Our Approach



- Ensure our assets are safe and reliable
- Improve certainty through increased inspection and data
- Ensure transparency in our plans and schedules
- Leverage all technologies and prioritize our work to restore capacity as quickly as possible
- Improve confidence with each iteration of inspection
 - Improve predictability and scheduling

Q&A

Operation Status Update

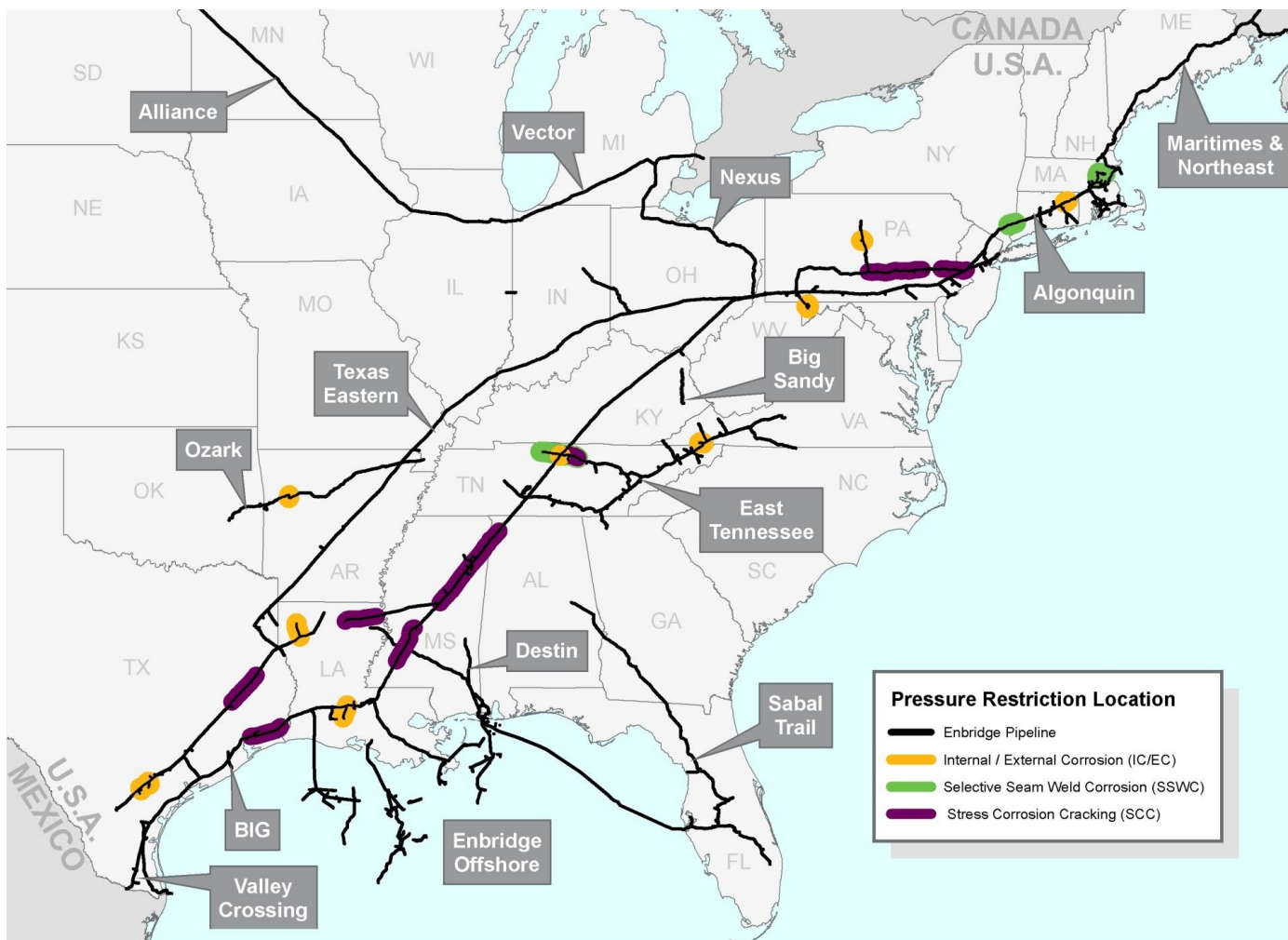
Ryan James

Director, Marketing SE, Commercial Coordination

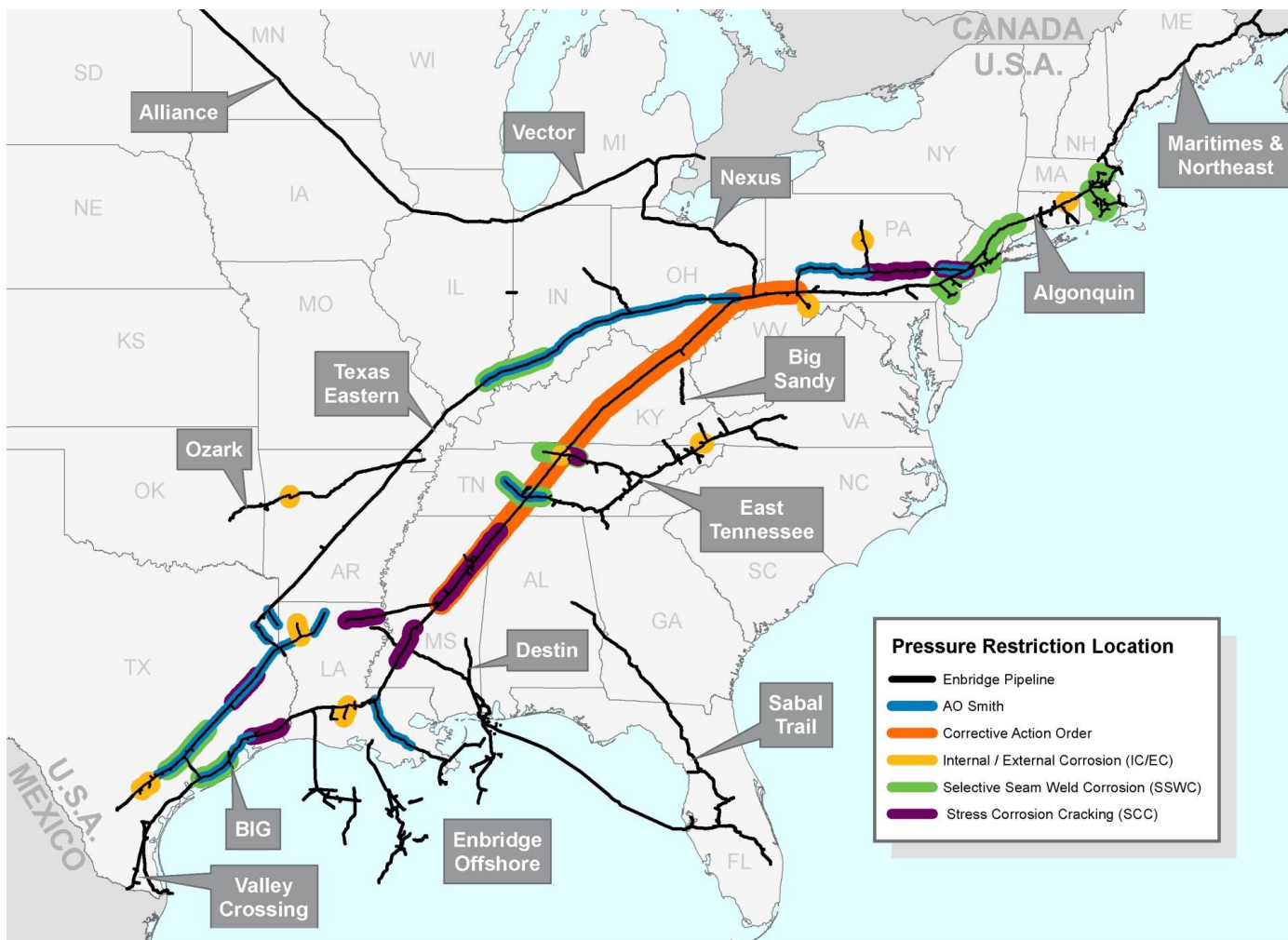


Fall Customer Meeting
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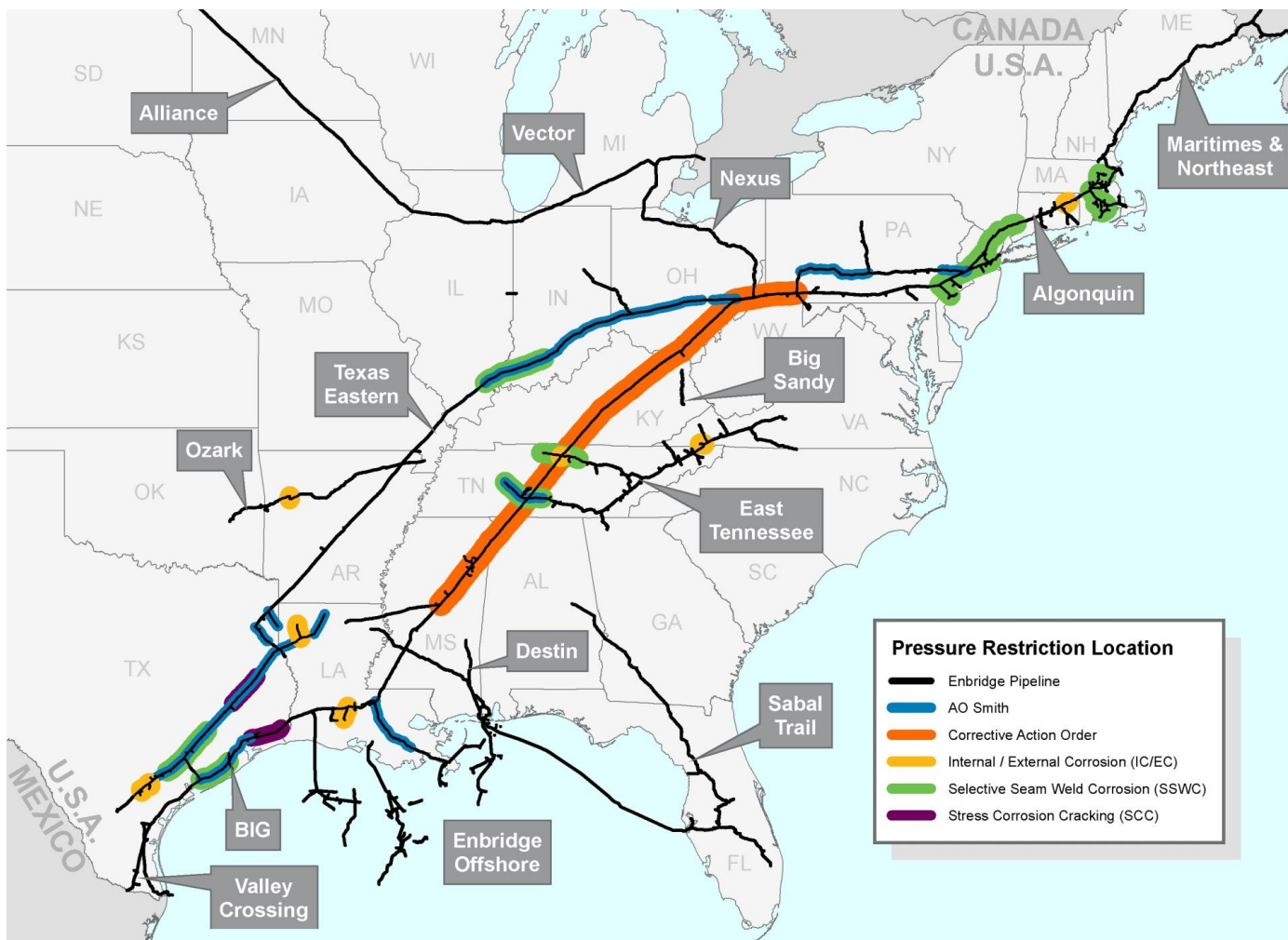
Proactive Pressure Restrictions: May



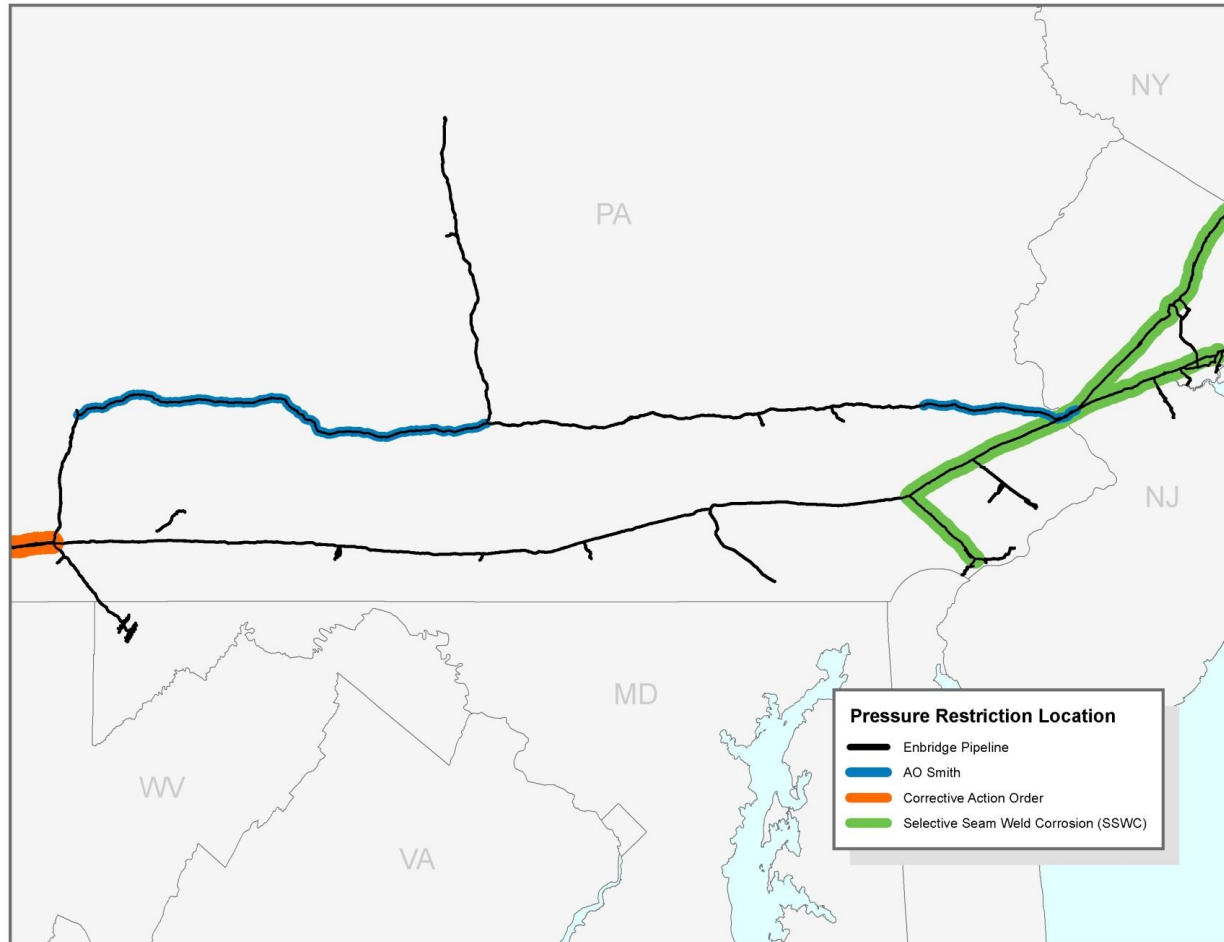
Proactive Pressure Restrictions: August



Projected Pressure Restrictions: Early Winter



TETLP PJ: Early Winter Pressure Restrictions



Penn Jersey

Proactive Pressure Restrictions:

- Line 12 Delmont to Perulack
- Line 19 Bechtelsville to Lambertville
- Line 1: Lambertville to Linden
- Line 1-D and Line 1-D-3: Downstream of Linden

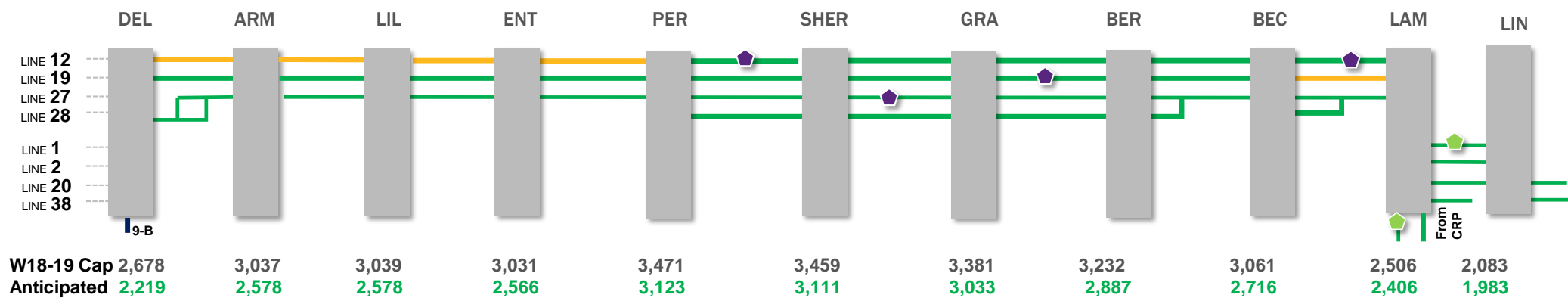
Remediate Plan Prior to Winter:

- Line 12: Perulack – Shermansdale
- Line 27: Shermansdale to Grantville
- Line 19: Grantville to Bernville
- Line 12: Bechtelsville to Lambertville

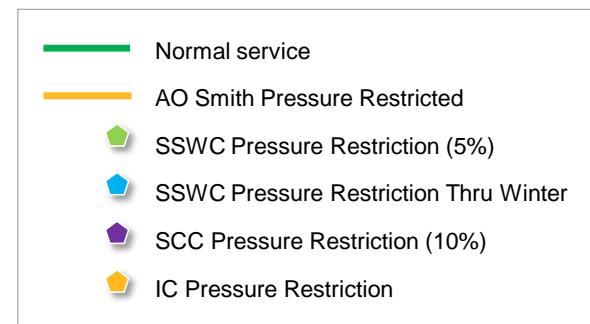
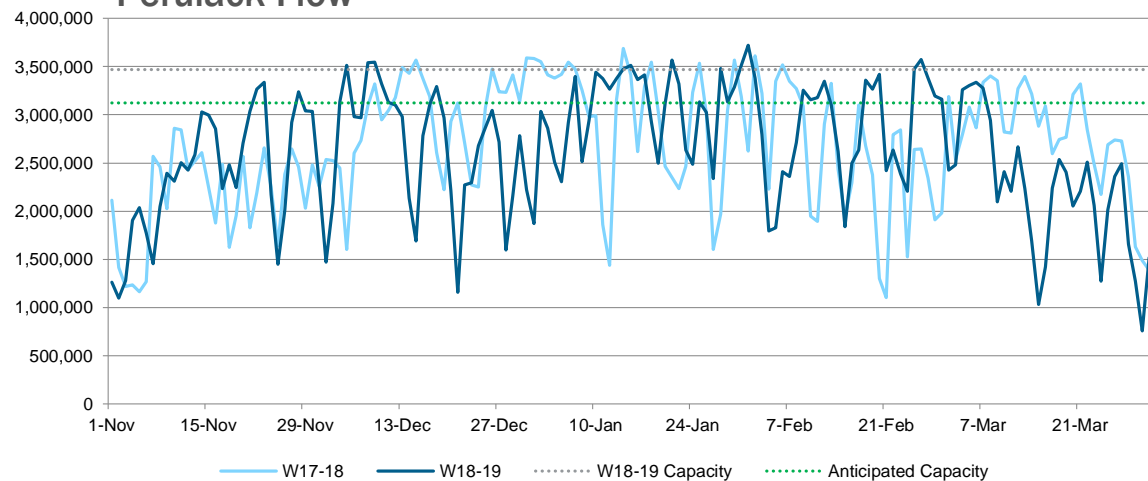
CRP

- Line 1-A Eagle to Chester
- Line 1 Eagle to Lambertville

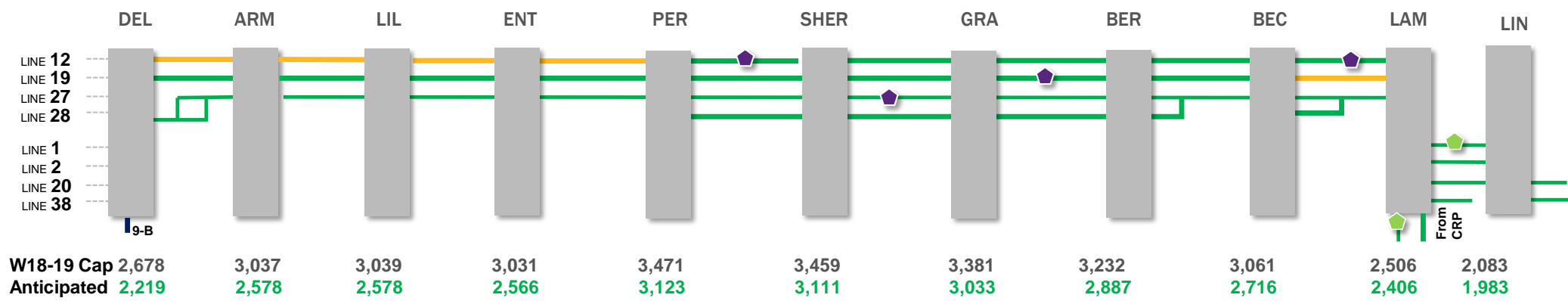
TETLP – M3: Penn-Jersey System



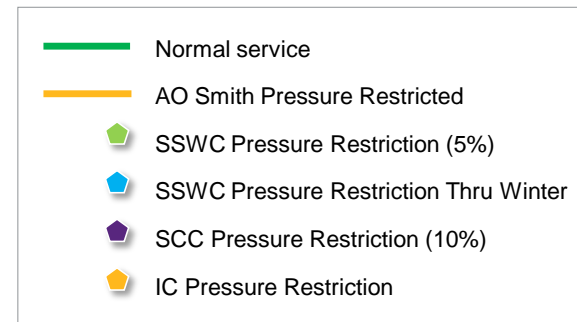
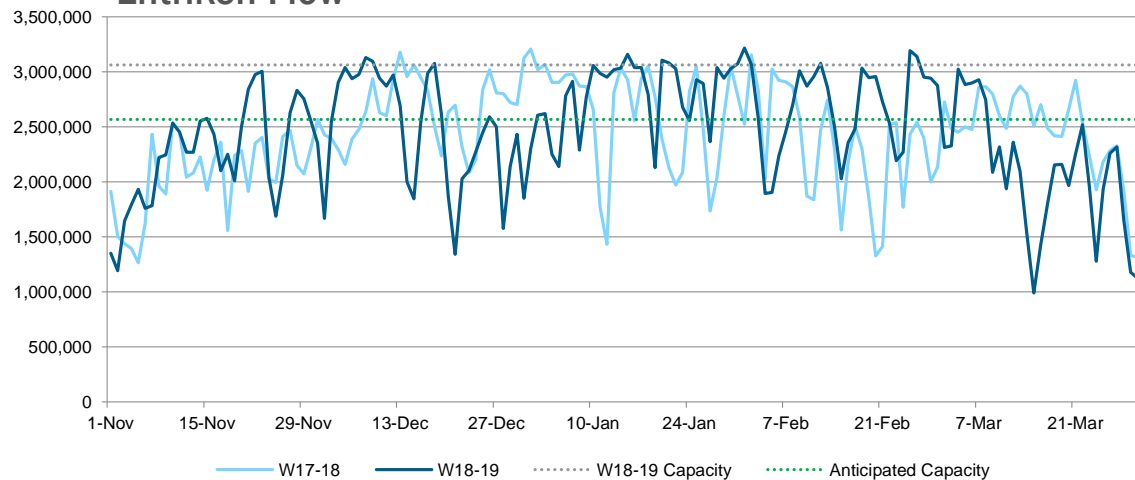
Perulack Flow



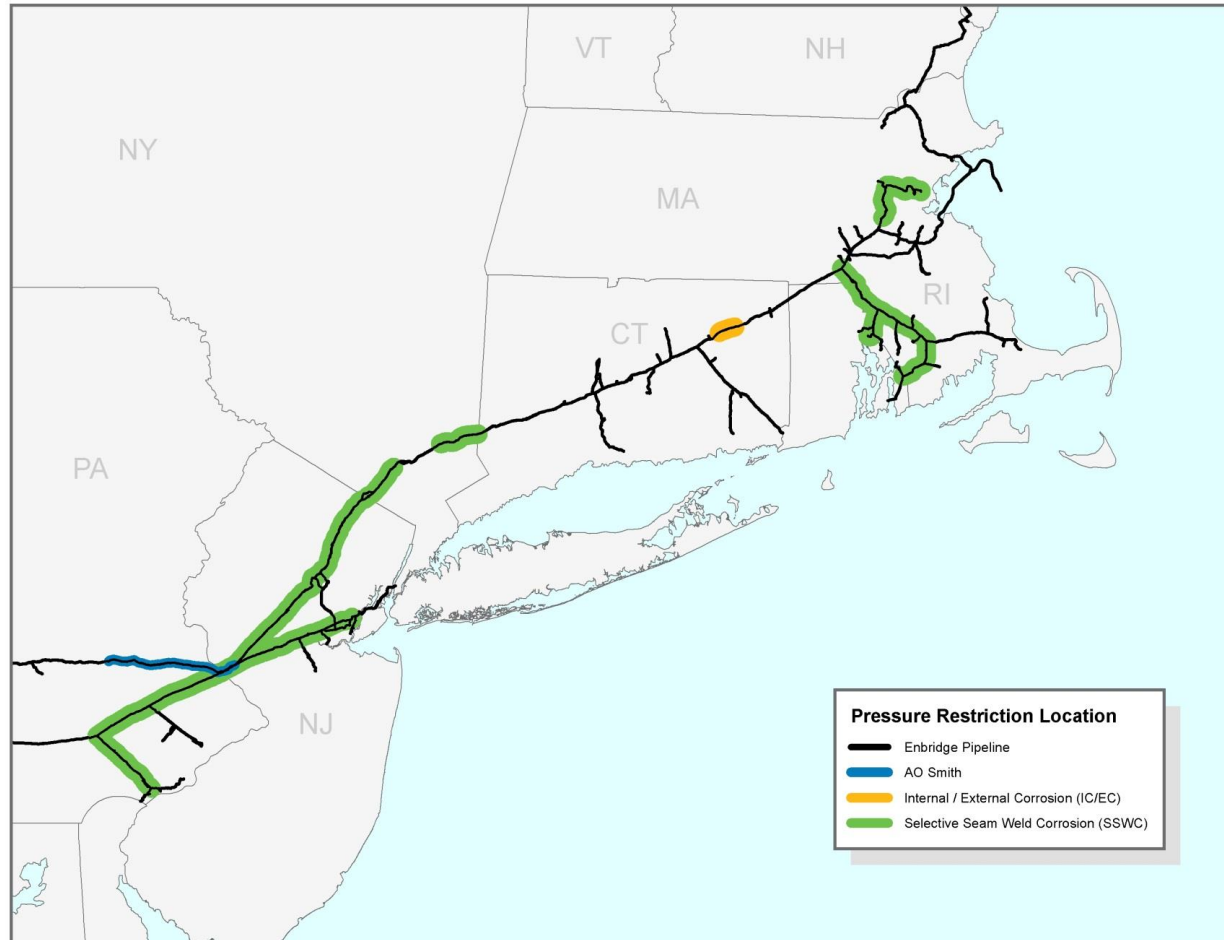
TETLP – M3: Penn-Jersey System



Entrioken Flow



AGT: Early Winter Pressure Restrictions

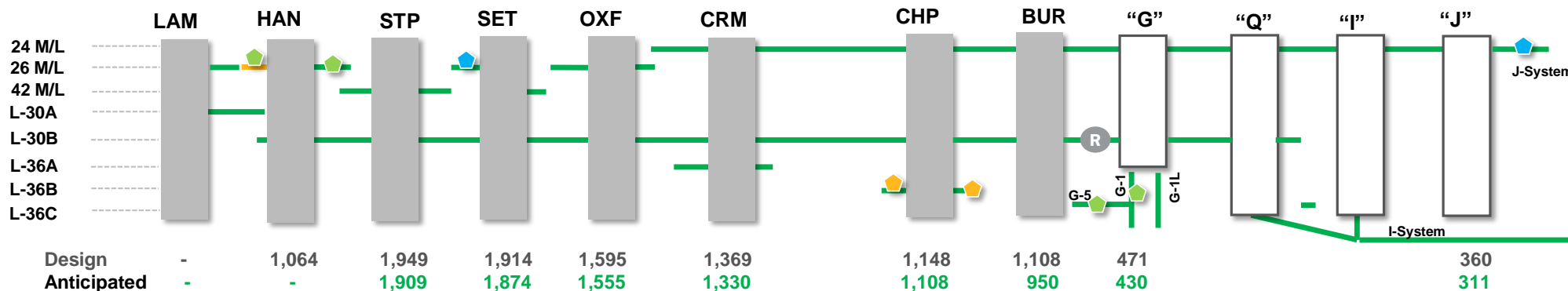


AGT

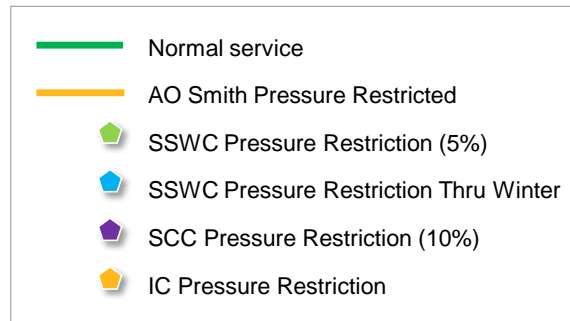
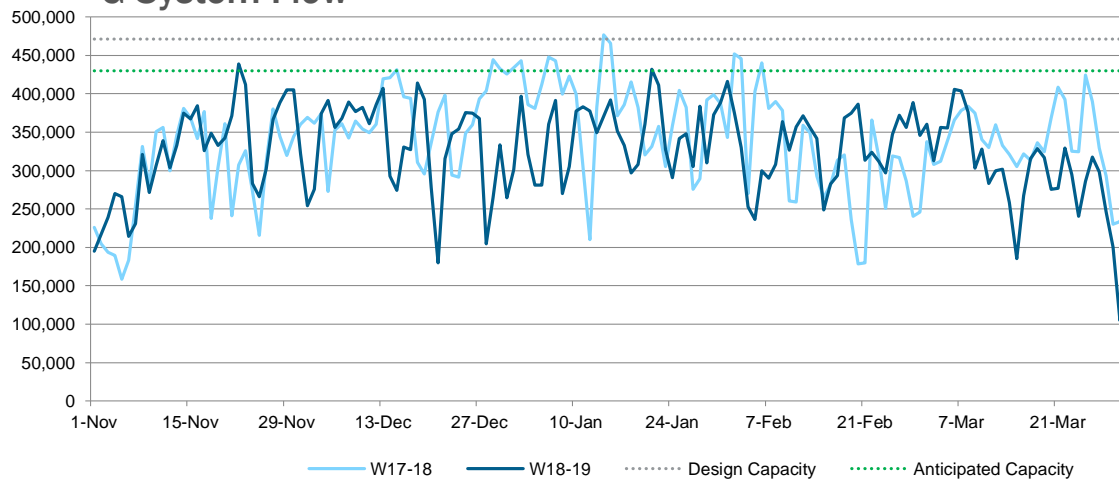
Proactive Pressure Restrictions:

- G-1 & G-5 System
- J-1 System
- 26" M/L Lambertville to Mahwah Mainline
- 26" M/L Stony Point to Southeast 26" M/L
- L36B Chaplin to Burrillville

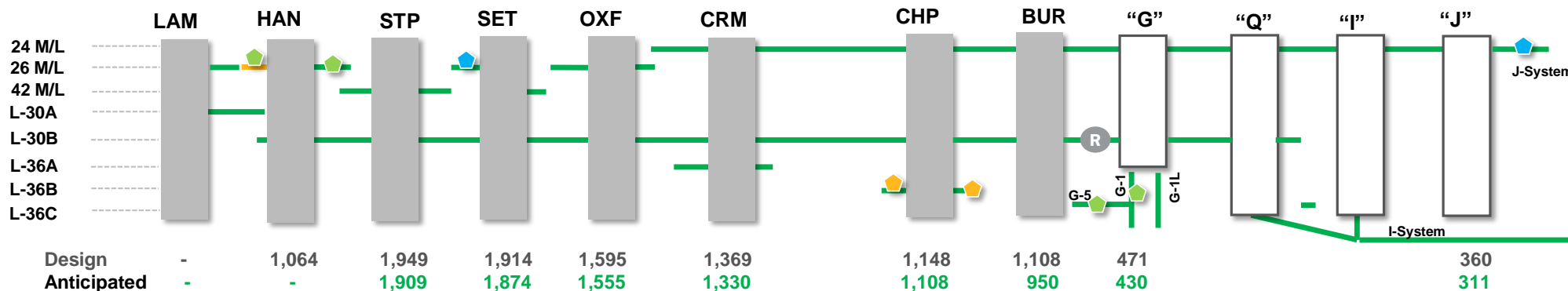
AGT – G System: Capacity Impact



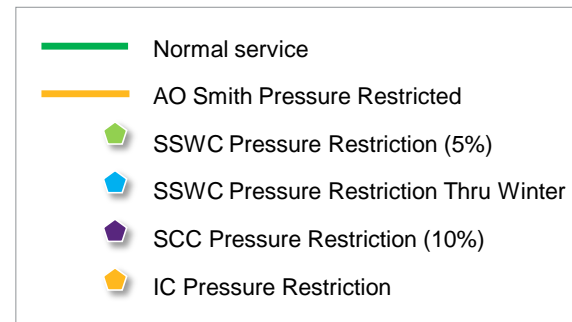
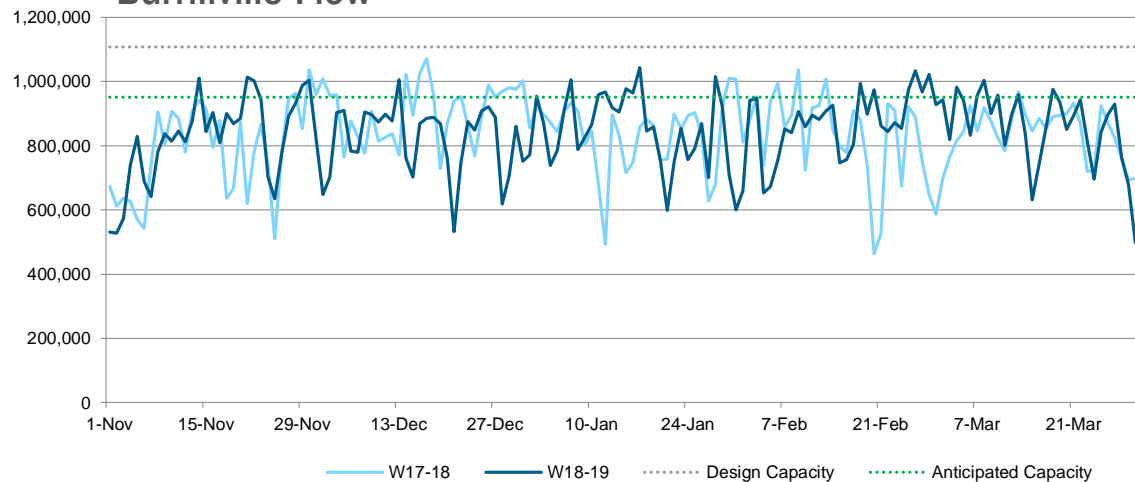
G System Flow



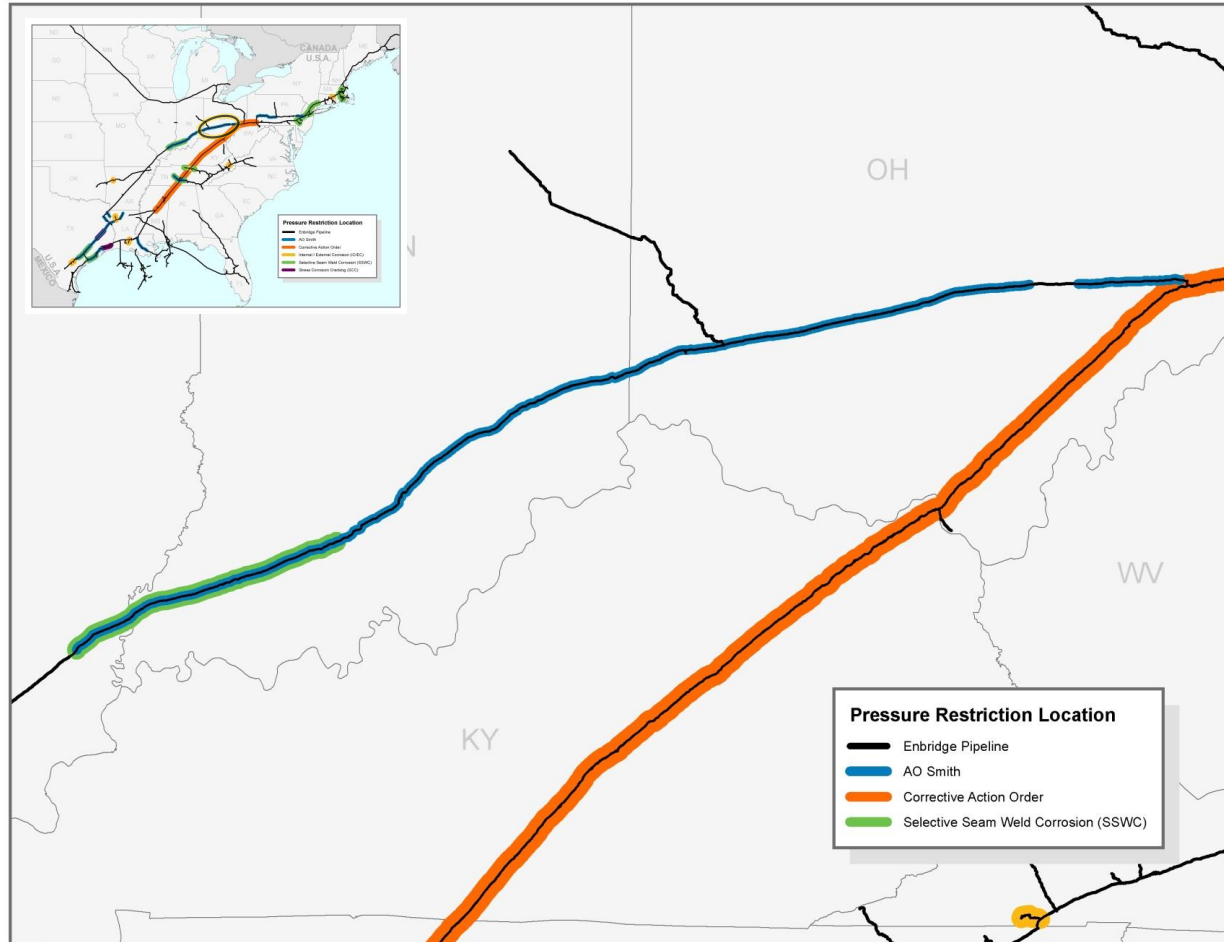
AGT – G System: Burrillville Capacity Impact



Burrillville Flow



Upper 24": Early Winter Pressure Restrictions



Upper 24"

Proactive Pressure Restrictions:

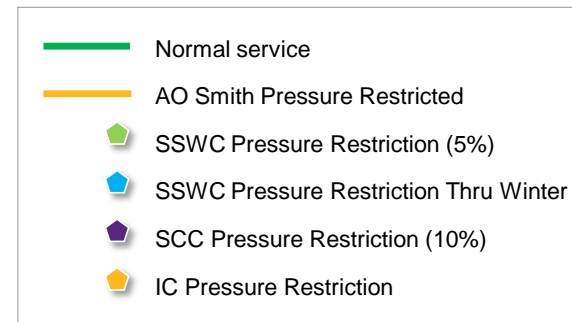
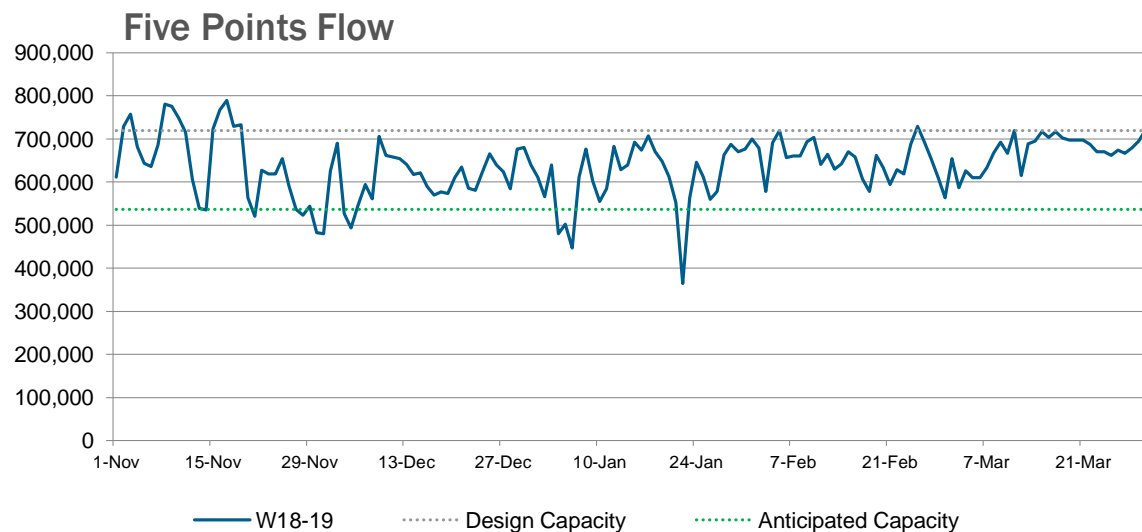
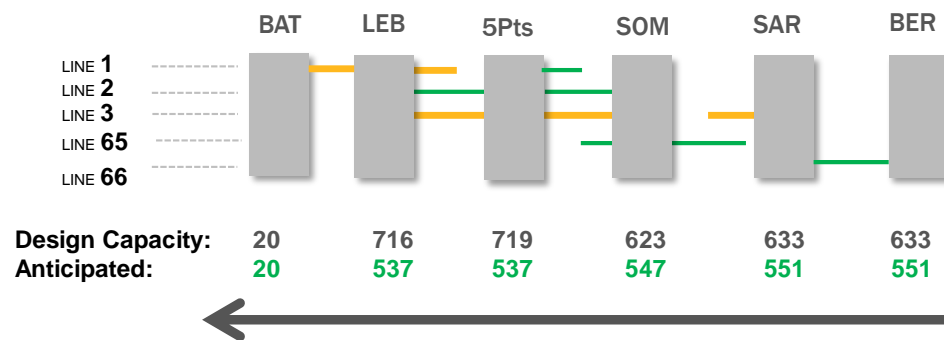
- Line 1 Five Points to Lebanon
- Line 3 Sarahsville to Lebanon

Other 24" Pressure Restrictions

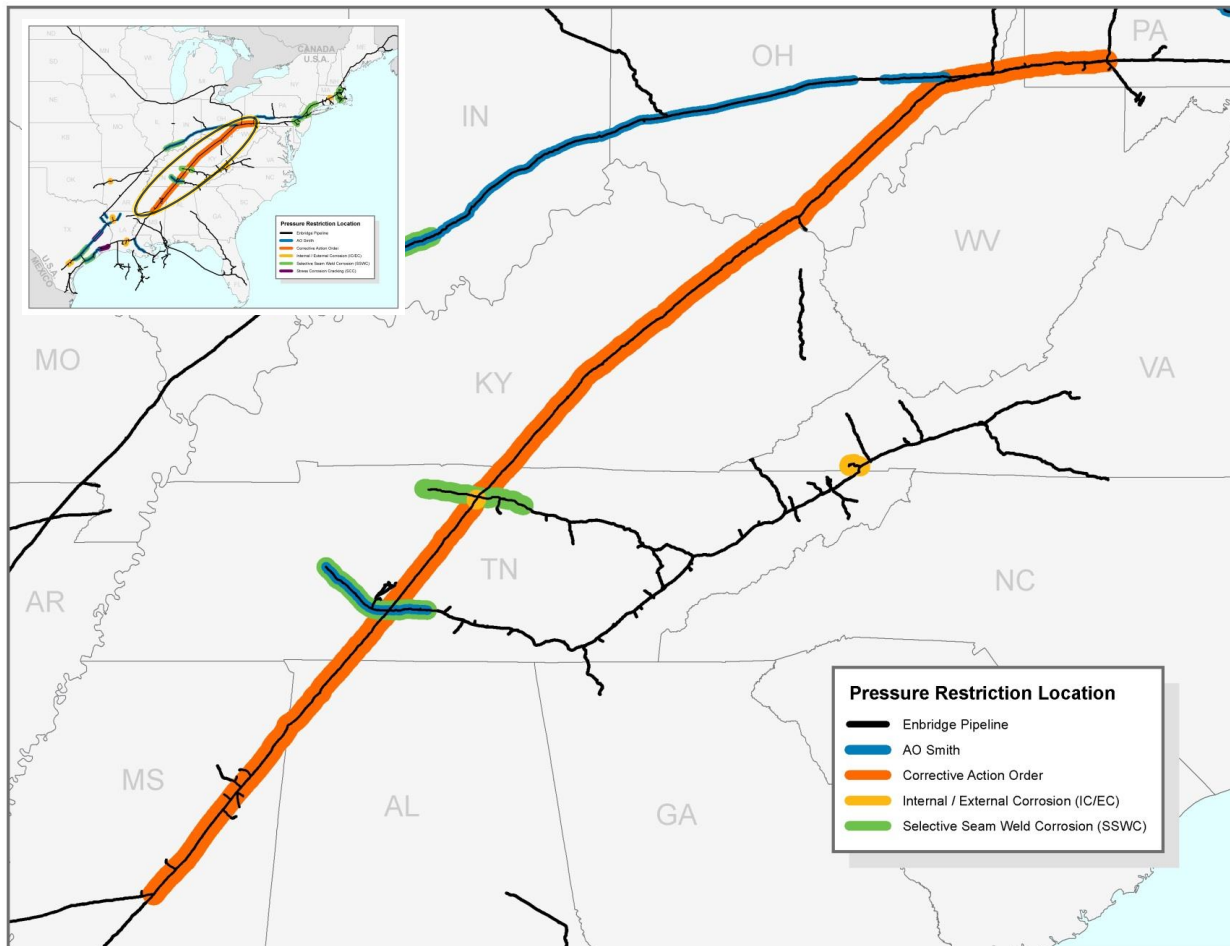
(not impacting North to South Flow on Upper 24")

- Line 1 Norris City to Lebanon

TETLP – M2: Upper 24” (Berne to Lebanon)



30": Winter Pressure Restrictions

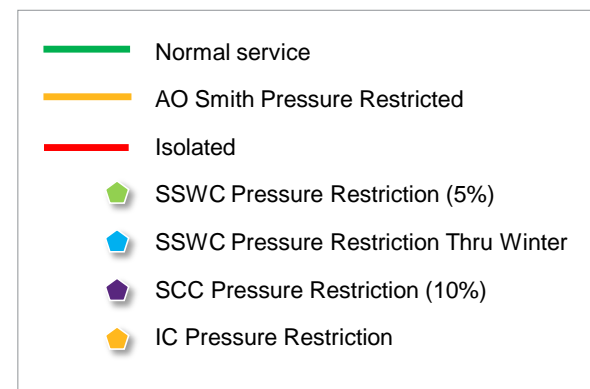
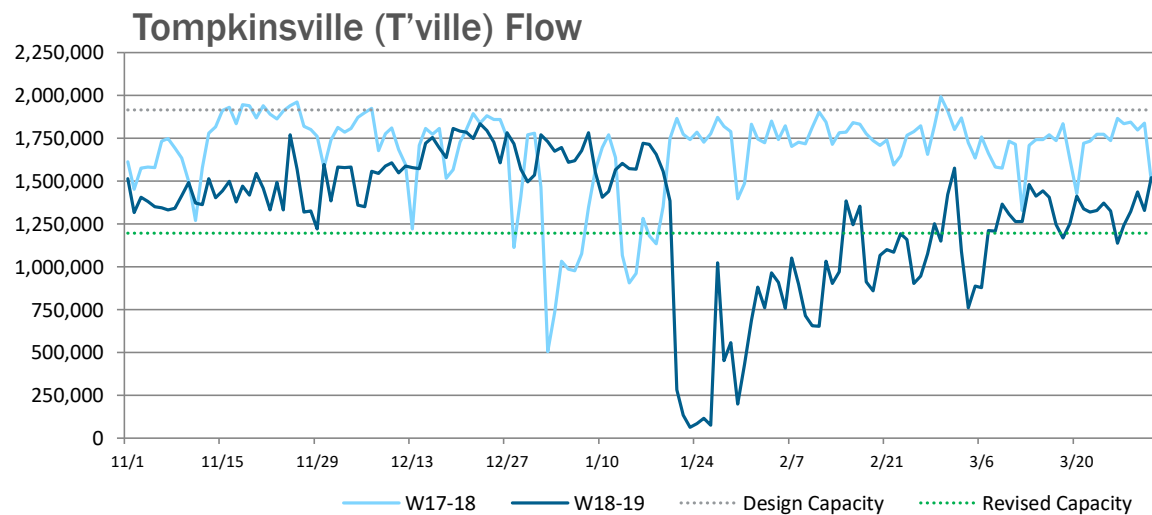
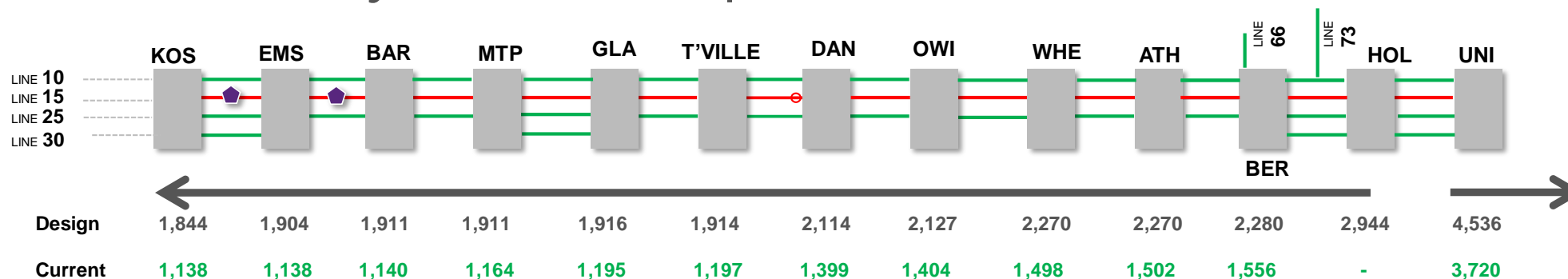


30" System

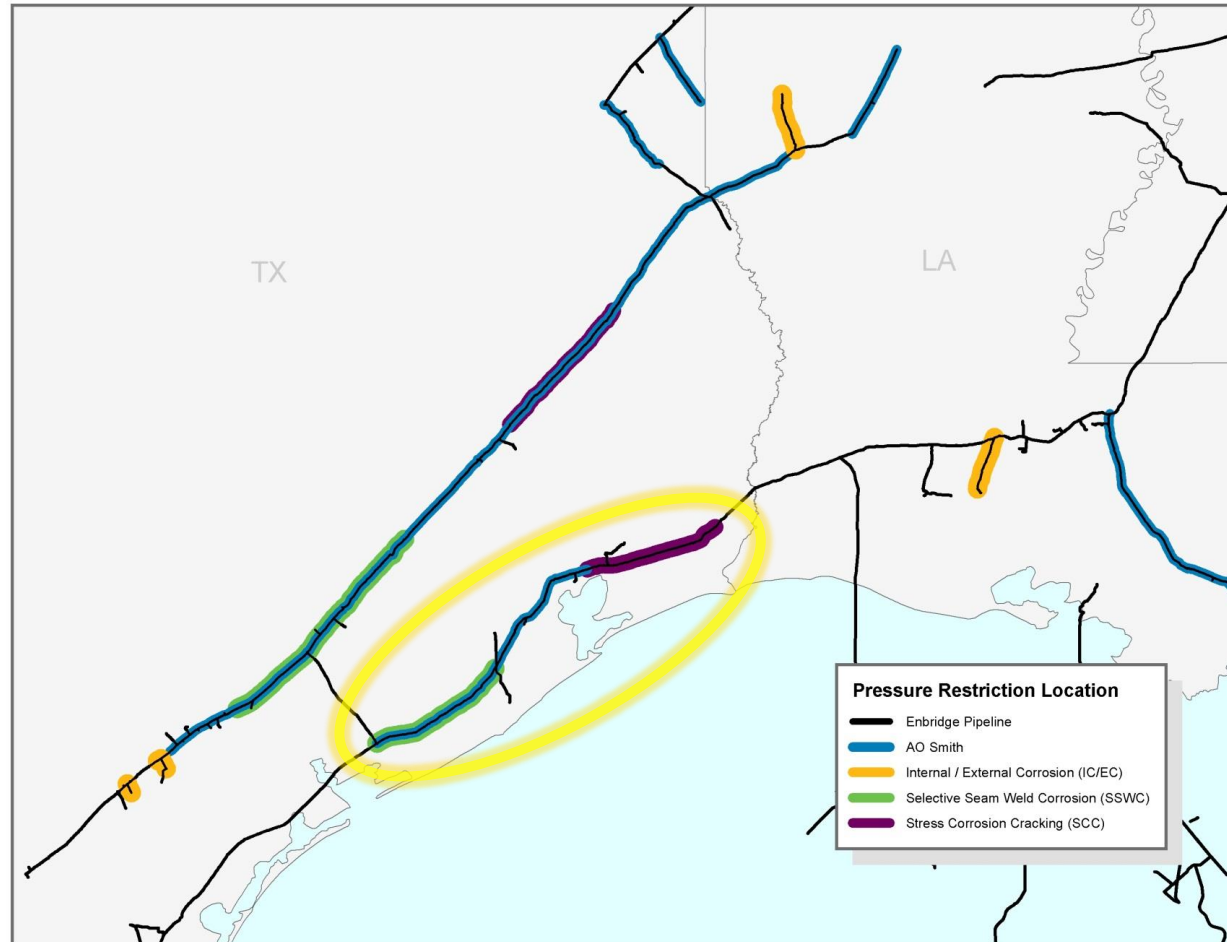
CAO Pressure Restrictions:

- Line 15 Kosciusko to Uniontown

TETLP: 30" System at Tompkinsville



Line 16 (STX): Winter Pressure Restrictions

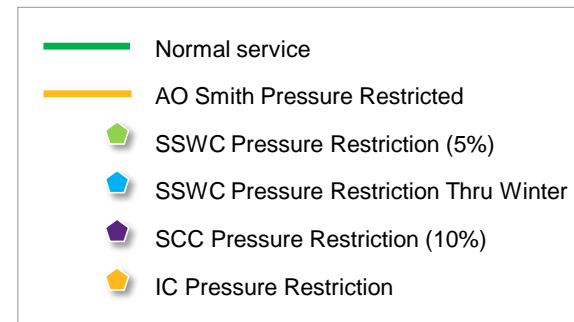
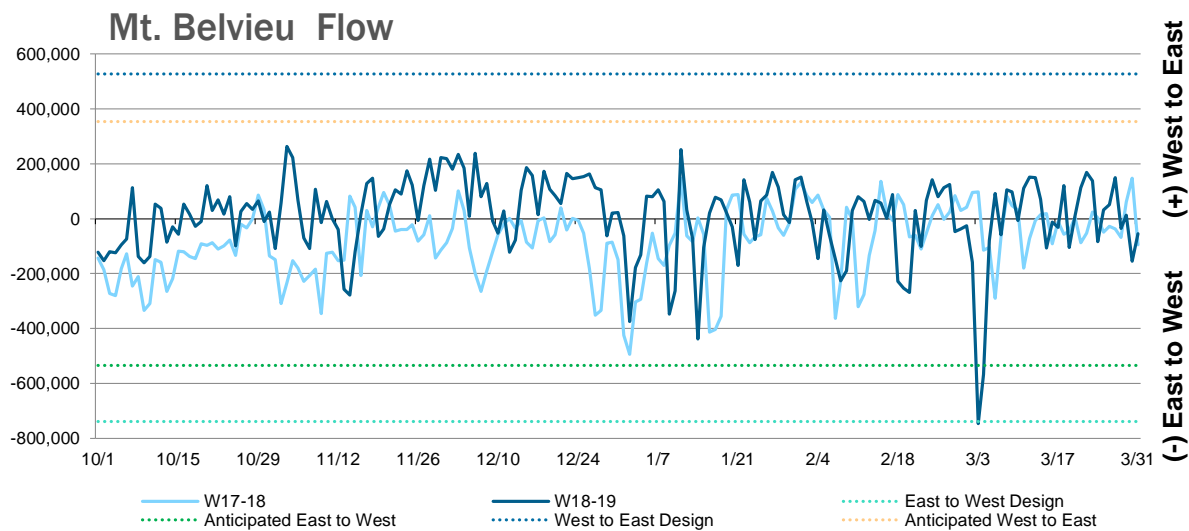
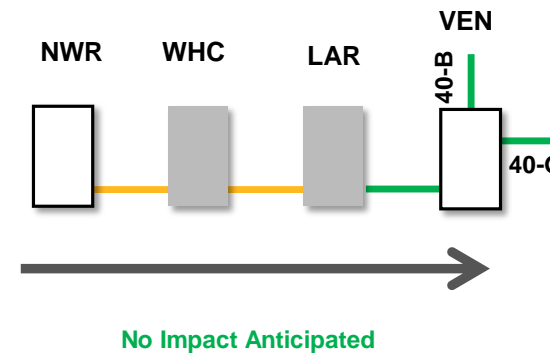
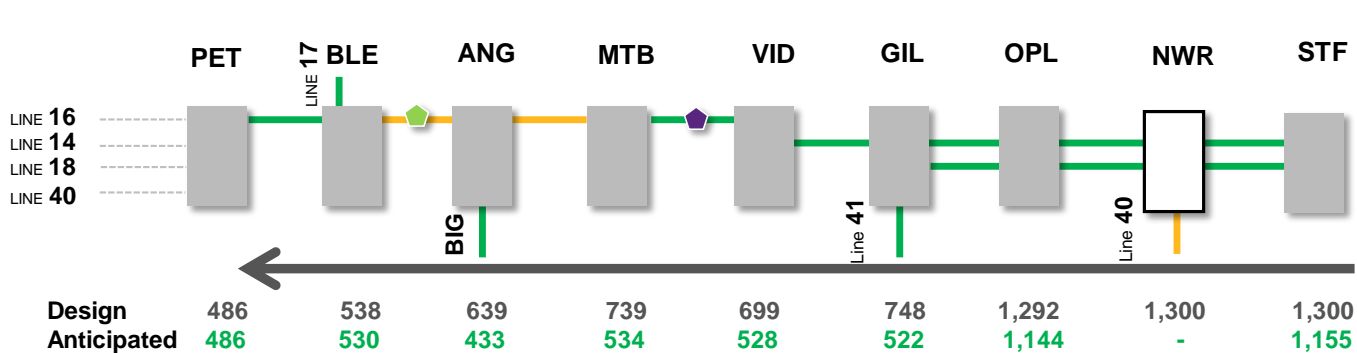


Line 16

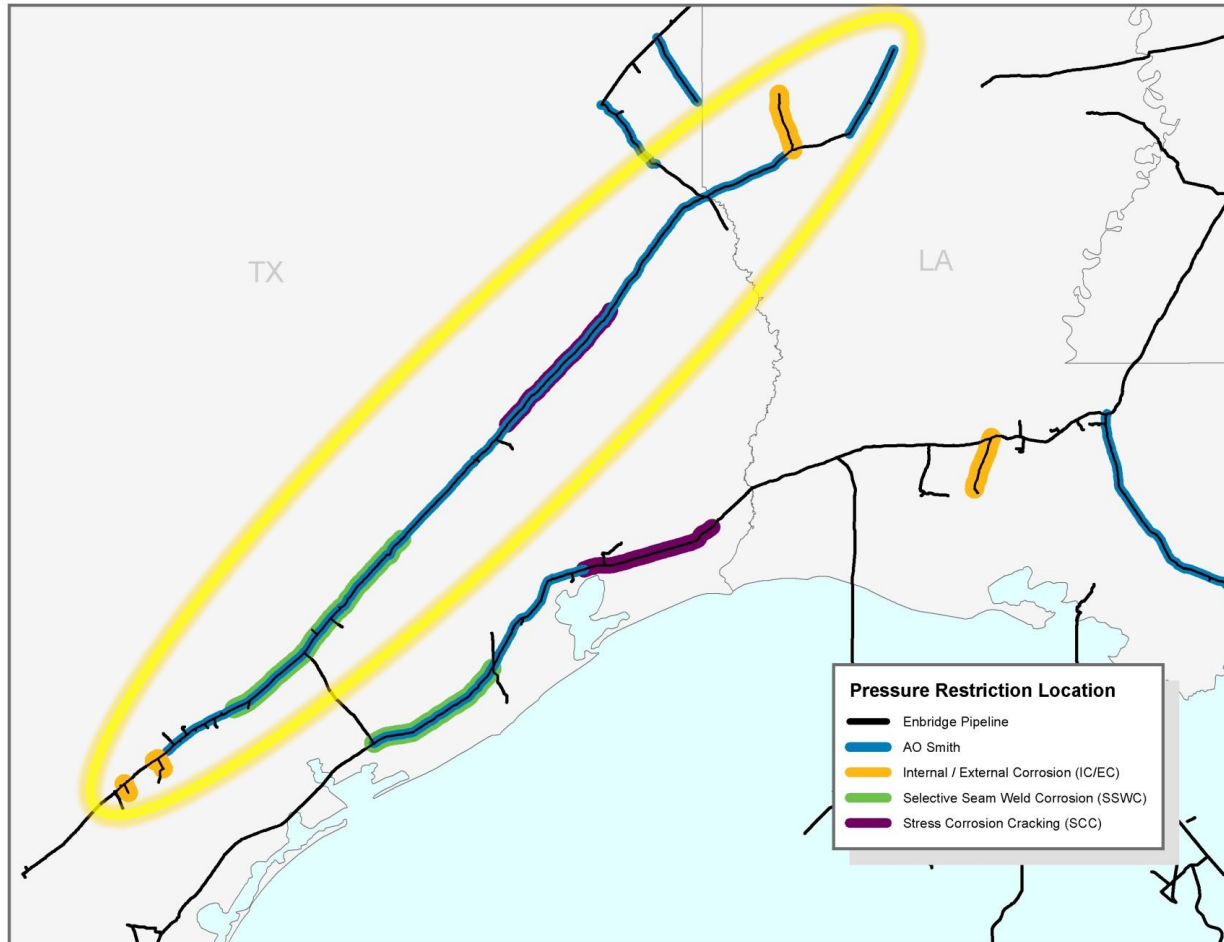
Proactive Pressure Restrictions:

- Line 16 Blessing to Mt. Belvieu
- Line 16 Mt. Belvieu to Vidor
- Line 40 New Roads to LaRose (ELA)

TETLP: 30"STX @ Mt. Belvieu (MTB)



Line 11 (STX/ETX): Winter Pressure Restrictions



24" in STX / ETX

Proactive Pressure Restrictions:

- Line 11 Provident City to Joaquin
- Line 11 Joaquin to Red River
- Line 2 Downstream of Castor
- Line 13 Carthage to Longview
- Line 21 Charco to Provident City

Q&A

Project Execution Update

Kerry Puckett

VP, U.S. & NE Canada Operations, Gas Transmission and Midstream



Fall Customer Meeting
Hershey, Pennsylvania | September 11 - 12, 2019

You've heard **“the why”** from Integrity and **“the what”** this means from System Planning. So now, **“the how”** we are going to achieve this...

- Coordination and Planning
- Resourcing and Expediting
- Desired Outcome



Coordination and Planning



- First and foremost is internal and external communication and pre-planning.
- Daily sessions with various stakeholders such as gas control, system planning, regulatory, integrity, operations, project execution, etc.
- We have taken some of our top organizational talent and placed them on this effort.
- Dedicated resources, not a side of the desk exercise.

Pipe replacement



Resourcing and Expediting



- Preparing agencies and regulators on upcoming activities.
- Communicating with vendors and contractors on our projected needs.
- Bringing in our Corporate Projects team to manage the more complex and repeatable workstream.
- Maintaining our Field Projects team to manage the immediate or extreme time sensitive work.

Geo-hazard (slip)



Desired Outcome



- Informed customers and stakeholders.
- Minimize business interruptions through rigorous pre-planning.
- Safe, efficient and effective project execution on the ground.
- An asset with improved reliability for the public, our customers, our regulators and our employees.



Q&A



Hershey, Pennsylvania | **Fall Customer Meeting**
September 11 - 12, 2019

Regulatory Update

Patti Fitzpatrick

VP, Regulatory, Gas Transmission and Midstream



Fall Customer Meeting
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Regulatory Update



- Texas Eastern rate case status update
- Algonquin settlement discussions status update
- Maritimes & Northeast status update
- FERC commissioners



Texas Eastern Rate Case Status Update

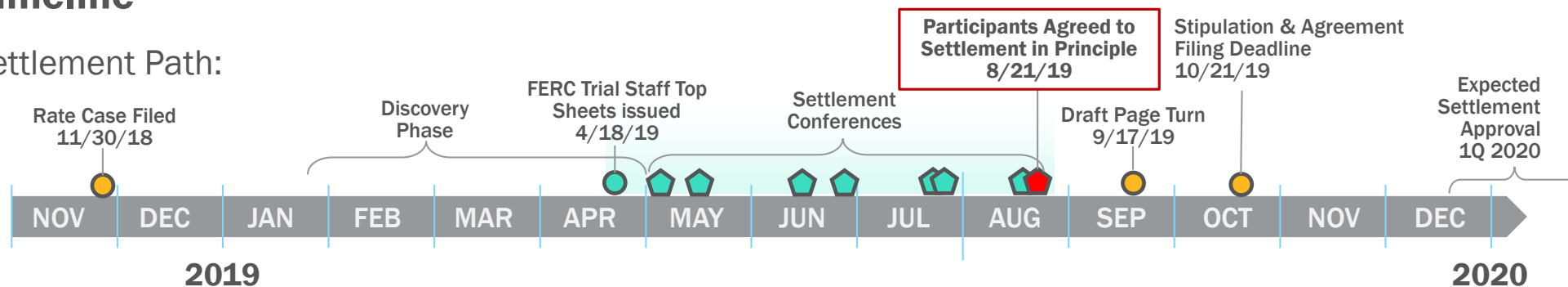


Filed November 30, 2018 under RP19-343



Timeline

Settlement Path:



Expected Refund Timing

- Refund timing specified in Order approving settlement, otherwise will be due within 60 days of that Order
- Refund report due within 30 days of date refunds issued

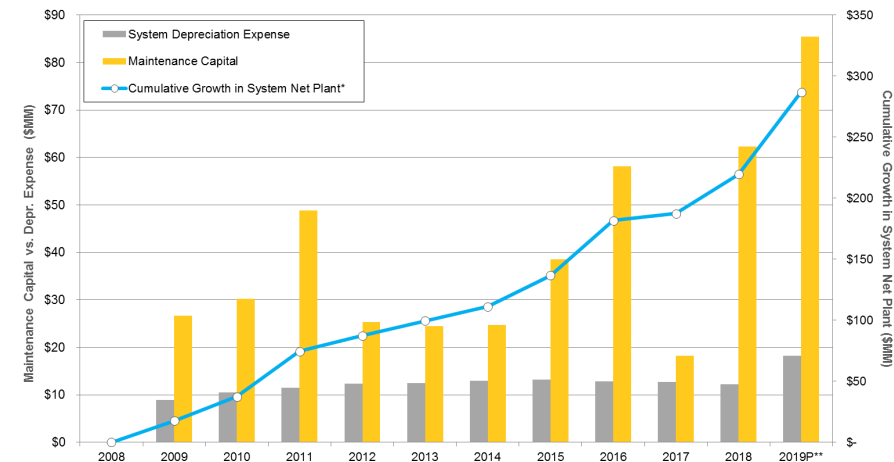
Algonquin Gas Transmission Status Update



Pre-packaged settlement is desired path

Significant rate base growth over 10 years	Realignment of depreciation & negative salvage rates
Increase in Integrity/reliability costs	Corporate tax rate reduction from 35% to 21%

Net System Plant Growth



Progress to date & next steps

- Settlement discussions held June 21, 2019 and July 16, 2019
- Provided initial settlement rate proposal on August 15, 2019 with webcast follow-up on August 22, 2019
- Answers to data requests provided in August; received further data requests in early September
- Counter-offer from customers expected late September
- If unable to reach pre-packaged settlement, Algonquin could file Section 4 early next year

Maritimes & Northeast Pipeline Status Update



Comeback Requirement Next Year

- M&N and customers reached settlement in last case under RP15-1026
- Rate case moratorium until November 1, 2019
- Rate case filing requirement by July 1, 2020
- Pre-packaged Settlement may be possible
 - M&N will reach out to customers late 2019/early 2020 to determine if this path is feasible

Regulatory Affairs Update

FERC Commissioner Changes - 2019



**Chairman
Neil Chaterjee**



**Commissioner
Bernard McNamee**



**Commissioner
Cheryl LaFleur**



**Commissioner
Richard Glick**

- Commissioner LaFleur stepped down in August after 9 years of service, leaving just 3 commissioners
- Quorum still in place, however, some anxiety in industry about potential 2-1 votes should Commissioner Glick dissent on any orders which he has in the past
 - 2-1 Orders may be easier for opponents to appeal
- White House likely to nominate a Republican & a Democrat to fill two open seats, which could take some time as it has with each vacancy over the past several years

Questions?



New Pipeline Development

Bobby Huffman

VP, U.S. Marketing, Southern Region, Gas Transmission and Midstream



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Project Development Updates 2H18, 1H19 Milestones



In Service

- STEP/Pomelo, TEAL, Stratton Ridge, Texas-Louisiana Markets
- NEXUS
- Valley Crossing
- Over 5 Bcf/d incremental capacity added for customers in 2019



Under Construction

- Lambertville East
- Atlantic Bridge Phase II

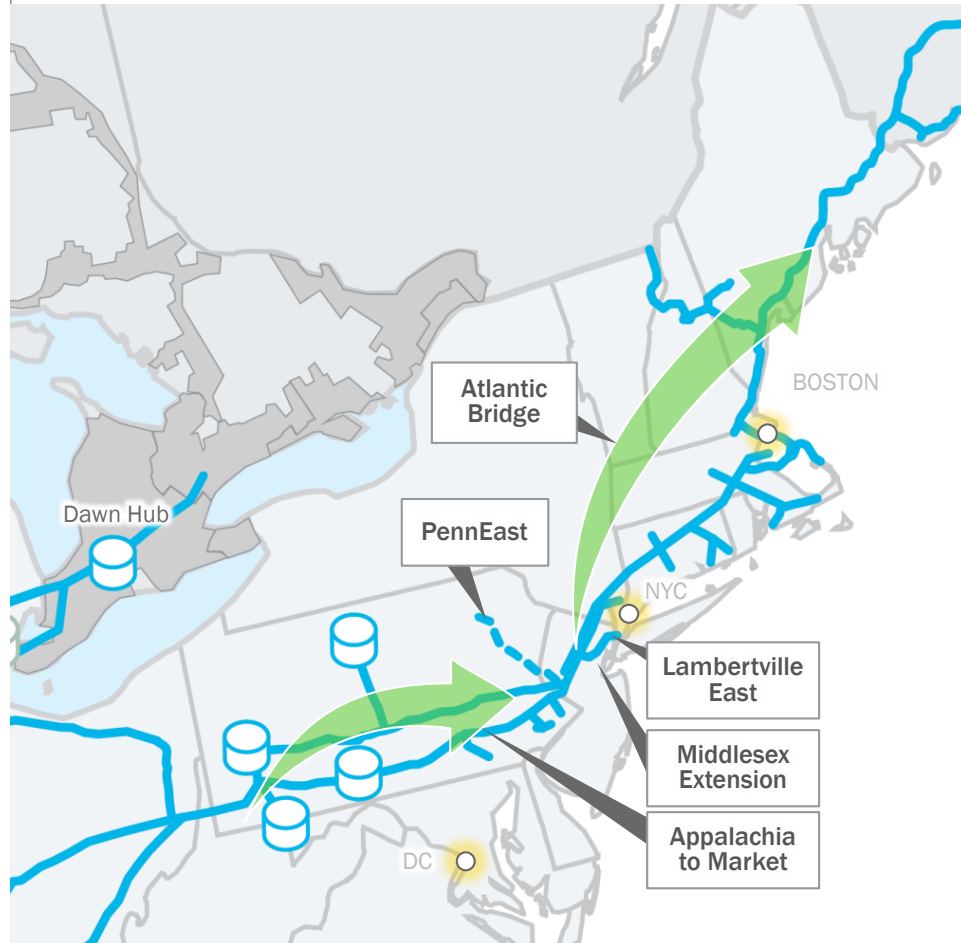


Regulatory Permitting

- PennEast project - received FERC Certificate, state permitting underway
- Atlantic Bridge – received MA air permit
- Cameron Extension & Venice Extension Projects – Anchor Shipper commitments secured, Open Seasons complete, planning to file FERC applications in 2H19 and 1H20, respectively



Northeast Team Execution Projects



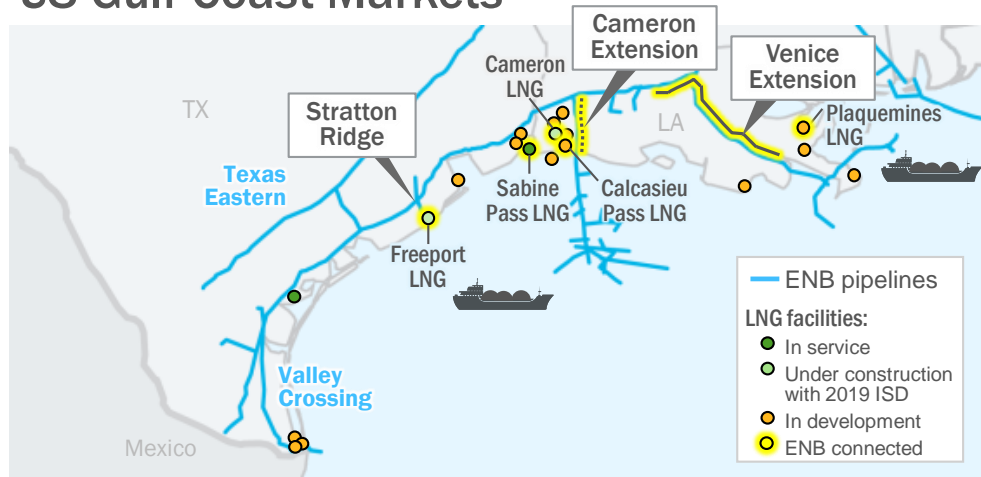
Atlantic Bridge	<ul style="list-style-type: none"> • Algonquin and Maritimes & Northeast mainline expansion • Phase II in service Oct 2019; Phase III anticipated in service 2020
Lambertville East	<ul style="list-style-type: none"> • Texas Eastern expansion – in construction • Anticipated in service Nov 2019
PennEast	<ul style="list-style-type: none"> • New pipeline connecting northeast PA supply to Texas Eastern and Algonquin at Lambertville • Permitting process underway
Middlesex Extension	<ul style="list-style-type: none"> • 1.5 mile extension to serve CPV power plant off Texas Eastern in New Jersey • Anticipate FERC Filing 2H19 and in service 1H21
Appalachia to Market	<ul style="list-style-type: none"> • Texas Eastern mainline expansion in Pennsylvania • Anticipated 2H21 in service

- Market-driven expansions to LDCs and power generators throughout the Northeast, New England and Atlantic Canada
- Projects underway to connect Appalachian supplies to end-use market



LNG – US Gulf Coast Growth Opportunities

US Gulf Coast Markets



Stratton Ridge	<ul style="list-style-type: none"> • Texas Eastern mainline – in service Q2 • Access to Freeport LNG 	US\$0.2B
Cameron Extension	<ul style="list-style-type: none"> • Texas Eastern expansion – in execution • To serve Calcasieu Pass LNG 	US\$0.2B
Venice Extension	<ul style="list-style-type: none"> • Reversal of Texas Eastern’s Venice lateral – in execution • To serve Plaquemines LNG 	US\$0.4B

- Leveraging our footprint
- Serving existing and developing LNG facilities
- Texas Eastern, Brazoria Interconnector Gas and Valley Crossing assets well connected to deliver to Gulf Coast LNG and Mexico markets
- Stratton Ridge recently placed into service

Finding new outlets through exports for abundant gas supply

The Generational Advantage

Karen McCullough
Guest Speaker



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Closing Thoughts

David Bryson

SVP & Chief Commercial Officer, Gas Transmission and Midstream



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enjoy your day



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