STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS PUBLIC UTILITIES COMMISSION

RE: THE NARRAGANSETT ELECTRIC COMPANY D/B/A RHODE ISLAND ENERGY TARIFF ADVICE TO AMEND THE NET METERING PROVISION - PROPOSAL FOR ADMINISTRATION OF EXCESS NET METERING CREDITS

DOCKET NO. 23-05-EL

MASSAMERICAN ENERGY LLC dba GRIDWEALTH DEVELOPMENT'S MEMORANDUM OF LAW

By its attorneys, MassAmerican Energy LLC dba Gridwealth Development (Gridwealth), files this memorandum of law. RIE proposes to create an annual billing period for net metering customers in order to reconcile production against consumption and then assess a charge, if warranted, for overproduction, which is meant to be credited at a lower rate - either at the Last Resort Service for excess production up to 125% of consumption or at 0 for production over 125% of consumption.

As RIE discusses on pages 10-11 of the Filing, the existing tariff language authorizes annual

reconciliation as follows:

establish a monthly billing plan that reflects the expected credits that would be applied to the net metered accounts over twelve (12) months. The billing plan would be designed to even out monthly billings over twelve (12) months, regardless of actual production and usage. If such election is made by the electric-distribution company, the electric-distribution company would reconcile payments and credits under the billing plan to actual production and consumption at the end of the twelve-month (12) period and apply any credits or charges to the net-metered accounts for any positive or negative difference, as applicable.

This use of an annual billing period for reconciliation purposes is also authorized by Rhode Island's

net metering law at R.I. Gen. Laws § 39-26.4-3(a)(2).

(2) For ease of administering net-metered accounts and stabilizing net-metered account bills, the electric distribution company may elect (but is not required) to estimate for any twelve-month (12) period:

(i) The production from the eligible net-metering system or community remote net-metering system; and

(ii) Aggregate consumption of the net-metered accounts at the eligible net-metering system site or the sum of the consumption of the eligible credit-recipient accounts associated with the community remote net-metering system, and establish a monthly billing plan that reflects the expected credits that would be applied to the net-metered accounts over twelve (12) months. The billing plan would be designed to even out monthly billings over twelve (12) months, regardless of actual production and usage. If such electric is made by the electric distribution company, the electric distribution company would reconcile payments and credits under the billing plan to actual production and consumption at the end of the twelve-month (12) period and apply any credits or charges to the net-metered accounts for any positive or negative difference, as applicable. Should there be a material change in circumstances at the eligible net-metering system site or associated accounts during the twelve-month (12) period, the estimates and credits may be adjusted by the electric distribution company during the reconciliation period. The electric distribution company also may elect (but is not required) to issue checks to any net-metering customer in lieu of billing credits or carry-forward credits or charges to the next billing period. For residential-eligible net-metering systems and community remote netmetering systems twenty-five kilowatts (25 KW) or smaller, the electric distribution company, at its option, may administer renewable net-metering credits month to month allowing unused credits to carry forward into the following billing period.

The company proposes to use an annual billing period and annual reconciliation of production and

consumption to assess a charge for any excess renewable net metering credits.

Each month the company issues net metering credits to these accounts as a monetary value

based on their net production/consumption. The monthly monetary value fluctuates based on the

monthly value of last resort service (LRS). When RIE conducts an annual volumetric reconciliation

of production and consumption on net metered accounts it cannot know what monetary value to apply

to any net production. So, it proposes to use an average LRS rate. Thus on page 12, the testimony

speaks of applying an average LRS rate to issue cash out credits.

Permit a cash out provision to cash out excess renewable net metering credits (credits for energy produced that is between 100% and 125% of the net metering customer's usage during the billing period) on an annual basis at the average annual LRS rate, after the reconciliation billing charges apply.

Then, on page 15 it adds:

Specifically, the Company is proposing to apply an annual average of the LRS rate as the LRS rate fluctuates throughout the year.

Then RIE responded to PUC 1-4 as follows:

Request: Please explain how, specifically, RIE would determine annual averages for the purpose of calculating Billing Charges as described in the proposed Schedule C load-sited net metering facilities. Response:

Response: The Company would utilize the monthly tariff rates as shown in R.I.P.U.C. Tariff No. 2095 and R.I.P.U.C. Tariff No. 2096 to calculate the annual average Renewable Net Metering Credit and Excess Renewable Net Metering Credit for purposes of calculating the Billing Charges. For an example

utilizing A-16 for 2022, please refer to PUC 1-4 Attachment. The Company calculated the Renewable Net Metering Credit and the Excess Renewable Net Metering Credit for each month of 2022 based on their respective components (Last Resort Service, Distribution, Transmission, and Transition) and subsequently computed their yearly mean values.

According to RIE, the LRS value fluctuates based on demand for natural gas, which drives the price of electricity. But, since our homes and businesses are also predominantly heated and cooled with natural gas, demand for natural gas, and the price of natural gas, is also driven by the market for thermal energy. Thus, RIE responded to MAE 1-5:

To the extent the Last Resort Service component of the Renewable Net Metering Credit differs between seasons (i.e., the summer months of April through September and the winter months of October through March), this is largely a function of natural gas pipeline constraints into the New England market and high natural gas demand causing elevated natural gas prices and, consequently, elevated electricity prices during the winter period as compared to the summer period. . .

It is the Company's understanding that natural gas pipeline constraints into the New England market and high natural gas demand both from heating customers and natural gas generators in the winter season results in higher and more volatile natural gas prices during the winter period. Electric prices are closely correlated to natural gas prices as natural gas generators typically set the marginal price of wholesale electric power in New England. Higher natural gas prices and high volatility in natural gas which typically translates to increased risk premiums have resulted in elevated electric prices in winter periods as compared to summer periods."

There is no dispute that thermal demand for natural gas impacts the monthly valuation of the net metering credit.

As can be seen from the graph RIE produced in response to MAE 1-4, net metering customers produce more electricity in the summer than they do in the winter. But, they consume more electricity in the winter than they consume in the summer. Thus, when net metering customers are over-producing their consumption that overproduction is credited at a relatively low LRS rate. But, when they overconsume their production in the winter, they are charged at a high LRS rate.

Net metering customers transact in the electricity market, not the thermal market. To devalue net metering because of the pricing impact of natural gas, which is principally based on demand for

thermal energy, effectively penalizes net metering customers for a market they cannot control. Net metering customers produce the most electricity in the summer when the demand for electricity is at its highest. But they are not charged/credited based on the impact they have on peak electricity, as they should be. Instead, they are net charged/credited based on the cost of natural gas, which is largely driven by thermal customers, not electrical customers.

Mechanically speaking, this results in a situation where net metering customers can overproduce their consumption and still end up with large annual charges that greatly exceed the fixed charges on the account. That is only because they are being credited less for the excess electricity they produce in summer months than they are being charged when they underproduce consumption in the winter months. That perverse dynamic has nothing to do with the impact net metering customers have on the market for electricity; it is entirely driven by demand for natural gas and the impact of RIE's thermal customers.

As RIE set out in response to MAE 1-7(d), the Stakeholder Report adopted by Order 22851 in Docket 4600 provides twelve rate making principles [page 12 of the Stakeholder Report], of which the most relevant principles for this discussion are as follows:

- Promote economic efficiency over the short and long term
- Provide efficient price signals that reflect long-run marginal cost
- All parties should provide fair compensation for value and services received and should receive fair compensation for value and benefits delivered
- Be consistent with policy goals (e.g. environmental, climate (Resilient Rhode Island Act), energy diversity, competition, innovation, power/data security, least cost procurement, etc.)
- Rate structures should be evaluated on whether they encourage or discourage appropriate investments that enable the evolution of the future energy system

The current policy of tying compensation of net metering customers to the value of natural gas is fundamentally inconsistent with these ratemaking principles from docket 4600. Pricing signals that cross and conflate markets do not:

- provide fair compensation for value and services received and benefits delivered. Net These customers are helping to mitigate demand at times of peak consumption of electricity, thereby driving down marginal demand and costs associated with peak plants and peak need for transmission and distribution services. Yet, they are not fully compensated for that value/benefit.
- provide efficient price signals reflecting marginal cost. Net metering customers are currently penalized for the marginal cost of natural gas rather than rewarded for their impact on the marginal demand for and cost of electricity.
- provide economic efficiency. It is fundamentally inefficient for net metering customers to bear the burden of demand for natural gas.
- Encourage investment that enables the evolution of the future energy system. To debit net metering customers for the net impact of natural gas demand very fundamentally discourages investment in renewable energy projects that are central to the evolution of our future energy system, especially as Rhode Island's energy and climate mandate require more and more electrification of thermal and transportation which will, in turn, drive more demand for the clean electricity net metering customers produce for Rhode Island.

In addition to Rhode Island's climate and energy mandates, referenced above, the purposes of net

metering are most directly implicated in this docket. Those purposes are:

to facilitate and promote installation of customer-sited, grid-connected generation of renewable energy; to support and encourage customer development of renewable generation systems; to reduce environmental impacts; to reduce carbon emissions that contribute to climate change by encouraging the local siting of renewable energy projects; to diversify the state's energy generation sources; to stimulate economic development; to improve distribution system resilience and reliability; and to reduce distribution system costs.

RI. Gen. Laws § 39-26.4-1. It is self-evident that penalizing net metering customers for the price

impact of demand for natural gas does not serve any of these purposes.

Beyond that, it is RI's Energy Plan to reduce energy costs, increase energy reliability and

security and reduce emissions by diversifying our electricity supply away from its current over-

reliance on natural gas.

https://planning.ri.gov/sites/g/files/xkgbur826/files/documents/LU/energy/energy15.pdf

As Energy 2035 says:

Rhode Island cannot afford a business-as-usual course of action that increases energy security risks to the state, costs more than viable alternative paths, and fails to meet our obligation to mitigate the worst consequences of global climate change. Because the impact of longterm planning and investment choices will reverberate for decades to come, we must be especially prudent and strategic as we address the weighty energy policy decisions that face us today. (p. 4)

Expenditures on energy in Rhode Island have risen significantly in real terms over the past decade. As of 2010, annual expenditures in Rhode Island on electricity, thermal, and transportation fuels total approximately \$3.6 billion, up nearly \$1 billion from 10 years ago. Much of this increase is due to growing costs in the thermal and transportation sectors, which depend more heavily on high-cost petroleum-based fuels. (p. 20)

As detailed in Figure 25, viable demand- and supply-side options exist for Rhode Island to increase instate fuel diversity and increase energy security by shifting away from dependence on fuels like natural gas and gasoline. By far, Rhode Island's greatest available resource is energy efficiency. By maximizing demand reduction in all energy sectors, the state could cut economy-wide energy use by more than one third. Supply-side resources with the most significant potential future contributions are offshore wind, combined heat and power, distributed photovoltaic solar power, and natural gas. (p 41)

Rhode Island's primary challenge is to move away from its heavy reliance on natural gas, which today supplies more than 50 percent of Rhode Island's energy needs. Dependence on natural gas exposes the state to a substantial amount of price risk and potentially a supply risk, since Rhode Island sits at the end of a long stretch of pipeline infrastructure. The challenge is underscored by natural gas's important role across multiple sectors: natural gas provides fuel for nearly all in-state generating capacity, and is the dominant heating fuel in the thermal sector. Moreover, natural gas generation accounts for more than 50 percent of regional electric generation, so electricity imports to Rhode Island are also heavily dependent on natural gas. (pp. 43-44)

According to the Plan analysis, aggregate capital investments of between \$6.8 billion and \$7.3 billion in the efficiency, electric, thermal, and transportation sectors could generate between \$8.8 billion and \$14.5 billion in power and fuel expenditures in net present value terms over the life of the Energy 2035 planning horizon (Figure 30). Total net present value benefits range from \$1.6 billion to \$7.7 billion, depending on the scenario. This suggests that taking ambitious action to improve Rhode Island's energy security, costeffectiveness, and sustainability of its energy system is a good investment decision and a powerful economic strategy for generating long-term growth. (p 47)

RIE submits that its proposal is consistent with the ratemaking principles the PUC adopted in

Docket 4600. They responded to MAE 1-7 by saying that

Each of the five principles above supports an annual reconciliation of monthly value rather than seasonal value. By more closely linking the timing of generation to the timing of consumption, the Company is more appropriately valuing renewable energy production, which provides its benefits at the time of generation absent an energy storage system.

It is hard to understand such a fundamental disconnect about the value of net metering and whether it

is properly tied to the impact of natural gas. RIE does not appear to share Rhode Island's interest in

driving down the marginal cost of electricity. As established in the Transforming the Power Sector

report produced by the State of Rhode Island, and led by the Division of Public Utilities and Carriers

(our State's ratepayer advocate):

[w]hile many industries have become more efficient over the last few decades by leveraging information technologies to more fully utilize capital investment, Rhode Island's peak to average demand ratio is 1.98, meaning that nearly half of the utility's capital investment is not utilized most of

the time . . . To meet peak demand, our system currently invests in solutions that are more expensive than is necessary. . .

In the traditional regulatory model, electric utilities earn a return on investments based largely on the cumulative depreciated cost of the prudent capital investments. This model may exert a "capital bias" on the utility to deploy capital-intensive solutions. This occurs because the primary financial means through which the utility can grow its business and enhance earnings for shareholders is to invest in capital projects. This bias, created by the regulatory framework rather than by the utility itself, discourages the utility from seeking more efficient solutions that do not depend on large capital investments.

Transforming the Power Sector Phase 1 Report (Nov. 2017 -

https://ripuc.ri.gov/sites/g/files/xkgbur841/files/utilityinfo/electric/PST-Report Nov 8.pdf), at pp.

13-14, 16. Such bias underserves our state's preference for lower cost, more secure, and cleaner

distributed energy resources to provide for its own profit from natural gas and infrastructure

investment.

On page 9 of the tariff advice filing RIE's witness tips its hand regarding its valuation of net

metering for Rhode Island. In addressing the question "What is the cost of net-metering to

distribution customers as a whole?," RIE responds:

Pursuant to the Company's Net Metering Tariff, the Company recovers through a net metering charge the sum of the following: (1) all renewable net metering credits paid to eligible net metering customers, less any payments from Independent System Operator New England ("ISO-NE") for the sale of excess generation; and (2) the difference between the payments made to qualifying facilities with renewable generation at the LRS rate and the net proceeds received from ISO-NE for market energy sold and any capacity payments. The net metering charge is a uniform per-kWh charge applicable to all customers and is included with the long-term contracting ("LTC") recovery factor on customer bills, labeled as the renewable energy distribution charge.

This misleading statement about the cost of net metering to distribution customers very conspicuously omits all of the benefits and values of net metering that must be included in any cost/benefit analysis under the RIPUC's resolution in docket 4600. By producing electricity during peak hours and times, net metered systems (almost entirely photovoltaic systems) drive down system peaks and realize tremendous grid-wide savings for all market participants that are not compensated by RIE net metering tariff. RIE's position also neglects consideration of and compliance with Rhode Island energy policy, including but not limited to the purposes of the net metering law.

In this docket, the RIPUC ought to require RIE to credit net metering customers the same way it proposes to charge them, by averaging the LRS rate over an annual period when reconciling the value of production versus the cost of consumption. To average the LRS rate as a means to assessing a net charge on volumetric production without averaging the LRS rate as a means to accurately credit the value of net metering production, as RIE proposes to do in this docket, is inherently inaccurate and inequitable. Averaging the LRS rate for the purposes of crediting production will even out the seasonal swings in value driven by natural gas demand and will properly align the value of net metering customers production of electricity to the electricity market with demand for electricity in the electricity market. That methodology will avoid clouding the value of net metering with the cost of natural gas.

This approach is consistent with the law. Both the statute and the tariff allow RIE to set an annual reconciliation period for crediting as well as for charging net metering customers. As noted above, the statute allows RIE to

establish a monthly billing plan that reflects the expected credits that would be applied to the netmetered accounts over twelve (12) months. The billing plan would be designed to even out monthly billings over twelve (12) months, regardless of actual production and usage. If such election is made by the electric-distribution company, the electric-distribution company would reconcile payments and credits under the billing plan to actual production and consumption at the end of the twelve-month (12) period and apply any credits or charges to the net-metered accounts for any positive or negative difference, as applicable.

The law clearly calls for such a reconciliation based on an average LRS rate both for payments and credits required on any net metered account. Moreover, both the purpose of the net metering statute and its mechanics demand such equitable rate and billing practices, as do the PUC's ratemaking principles adopted in docket 4600.

Gridwealth respectfully asks the PUC to take an equitable approach to assessing net metering

customers charges for excess production. That includes ensuring that they are also properly credited by an annual reconciliation that applies an average last resort service rate.

Respectfully submitted,

MASSAMERICAN ENERGY LLC dba GRIDWEALTH DEVELOPMENT,

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CERTIFICATE OF SERVICE

I hereby certify that on September 8, 2023, I sent a true copy of the document by electronic mail to the PUC and the service list.

Seth H. Handy