STATE OF MAINE PUBLIC UTILITIES COMMISSION	DOCKET NO. 2023-00019
PUBLIC UTILITIES COMMISSION Commission-Initiated Inquiry Regarding Rate Structure for Standard Offer Service	October 31, 2023 COMMENTS OF THE MAINE GOVERNOR'S ENERGY OFFICE

The Public Utilities Commission (Commission) issued a Notice of Inquiry (NOI) on February 3, 2023 in the above-captioned proceeding to obtain comments from interested parties regarding the rate structure for standard offer service and standard offer time of use (TOU) rates (NOI at 1). In June 2023, the Legislature enacted a resolve (Resolves 2023, ch. 79) directing the Commission to investigate the feasibility of requiring:

1. Standard-offer service to include a time-of-use rate option, including whether the commission recommends the use of a pilot program to assess this option; and
2. All investor-owned transmission and distribution utilities to offer a time-of-use rate for the delivery of electricity for all customer classes that would complement a time-of-use supply rate.

On September 14, 2023 the Commission requested additional comments on the two considerations directed by the Resolve as well as comments on ISO-New England's 2050 Transmission Study and the anticipated effects of TOU rates on peak load. The Governor's Energy Office (GEO) thanks the Commission for the opportunity to provide comments.

1. Regarding the feasibility of a standard offer time-of-use rate option, including the use of a pilot program

The GEO previously submitted comments to the Commission's NOI supporting a time-varying supply rate with a phased approach, such as through the use of pilots, opt-out rates, and substantial consumer education efforts. The GEO recognizes that such an approach could help increase affordability by more effectively utilizing existing infrastructure and providing customers with more opportunities to manage their electricity costs, as well as support achievement of Maine's other energy goals. The GEO reiterates its support for time of use options to be available for both delivery and standard offer supply rates, and for the use of pilot programs incorporating efficient evaluation, measurement and verification efforts to assess impacts and efficacy.

Studies from existing time-of-use pilots and fully implemented programs generally demonstrate that customers respond to well-designed time-of-use rates, typically resulting in cost-savings to customers and to grid operations. Some studies have demonstrated that low-income customers are found to respond to price signals

similarly to other customers.[1] The magnitude of these impacts vary based on rate design factors including peak to off peak ratios; availability of enabling technologies that support customer load flexibility, such as programmable or smart thermostats; and customer outreach and education activities. The potential benefits of time-of-use rates for individual customers and for all ratepayers could increase significantly in the coming years as more energy end uses are electrified and the share of electricity supplied by renewable energy resources increases.

Time of use rates are well-understood mechanisms to enable load flexibility and increase customer opportunities to save on electricity costs. A 2019 meta-analysis by the Brattle Group examining residential customer response to time varying rates in more than 60 pilots and 350 treatments across 57 utilities found compelling evidence that customers respond to price changes to reduce peak loads.[2] The same analysis found that, on average, residential customers reduce their on-peak usage by 6.5% for every 10% increase in the peak-to-off-peak price ratio, and that customers with enabling technologies reduce peak usage by 11.1% for every 10% increase in the price ratio.

2. Regarding investor-owned transmission and distribution utilities offering a time-of-use rate for the delivery of electricity for all customer classes that would complement a time-of-use supply rate

Generally, time-varying rates are designed based on the marginal cost of service – in the case of delivery rates, on the marginal cost of transmission or distribution service, and in the case of supply rates, including standard offer supply, on the marginal cost of supply (i.e. generation). All else equal, aligning the rate schedules of supply-side time varying rates with delivery time of use rates would provide the greatest price signal for customers to shift load away from peak times by maximizing the cumulative peak to off peak ratio. In the alternative, if delivery and supply time-of-use rates are not designed to complement one another, customers may receive conflicting price signals from the delivery and supply portions of the bill, or may face an overly complex overall time of use pricing schedule that undermines their ability to respond efficiently. Undue complexity undermines the efficacy of any rate design and can lead to customer dissatisfaction.

However, the underlying marginal costs used to establish supply-side and delivery-side rate schedules may vary both seasonally and hourly. Current and proposed time-of-use delivery rates offered by both Central Maine Power and Versant Power also generally do not incorporate seasonal differences in the rate schedules, while a standard offer supply rate might.

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[1] E.g. “PC44 Time of Use Pilots: Year One Evaluation,” prepared by The Brattle Group for Maryland Joint Utilities. September 15, 2020. Available at https://www.brattle.com/insights-events/publications/study-by-brattle-economists-evaluates-time-of-use-tou-pilots-for-maryland-utilities/

[2] See https://www.brattle.com/wp-content/uploads/2021/05/16560_a_meta_analysis_of_time-varying_rates.pdf

In addition, any time-varying standard offer rate, including any pilot rate, should be designed to explicitly account for temporal variation in electricity supply sources, including reasonable expectations for future changes in the supply mix. Maine has established statutory greenhouse gas reduction requirements (38 M.R.S. §576-A) and renewable energy use (35-A M.R.S. §3210). The Commission has an essential role in the achievement of these policy objectives (35-A M.R.S. §103-A), and therefore should incorporate consideration of the potential for rate design decisions to affect greenhouse gas emissions and renewable energy use in the design of any time-varying standard offer supply rate or pilot.

On an hourly basis, well-designed time-varying rates could have the effect of encouraging customers to shift consumption away from hours during which emissions from the electric generation sector are relatively high and toward hours when emissions are relatively low. Similarly, well-designed time-varying rates could encourage usage during periods that align with the highest renewable energy output. Many renewable energy resources have near-zero marginal costs and therefore such a rate could both increase the amount of renewable energy consumed and result in lower overall wholesale market prices.

Well-designed time-varying rates can also support adoption of beneficial electrification technologies that both reduce greenhouse gas emissions and enable greater load flexibility, further benefitting customers with increased energy bill savings. Electric vehicle owners with well-designed time-of-use rates that encourage off-peak charging may realize even greater transportation cost savings, as well as benefitting all customers through increased utilization of the electric grid during off-peak periods. Well-designed time-varying rates can also encourage the adoption of energy storage technologies, which could enable greater renewable energy deployment as well as customer benefits.

3. Regarding the initial draft results of ISO-New England's so-called 2050 Transmission Study

ISO-New England's 2050 Transmission Study also highlights that reducing peak loads "significantly" reduces transmission costs, with some models showing total mileage of forecasted transmission overloads decreasing by 30-40%.[3] Among other potentially useful findings, the ISO-New England 2050 Transmission Study is a useful illustration of the importance of managing peak loads to ensure affordable, reliable energy costs for Maine and New England consumers.

In addition to the ISO-New England 2050 Transmission Study, the GEO highlights the ongoing Maine Energy Plan: Pathway to 2040 initiative,[4] which the GEO

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[3] ISO-New England 2050 Transmission Study, Key Takeaways and Transmission Development Roadmaps, July 25, 2023 https://www.iso-ne.com/staticassets/documents/2023/07/a10_2023_07_25_pac_2050_study.pdf

[4] See https://www.maine.gov/energy/studies-reports-working-groups/current-studies-working-groups/energyplan2040

is leading pursuant to the directive from Governor Mills to develop a pathway to achieve 100% clean energy by 2040. The robust energy system modeling underway through that study process is likely to produce meaningful forecast outputs and other technical materials that could inform the matters under consideration in this proceeding.

The GEO looks forward to continued work with interested parties to develop well-designed time-varying supply and delivery rates that support improved affordability, reduce greenhouse gas emissions, and enable increased renewable energy deployment.

Dated at Augusta, Maine this 31st day of October 2023.

Respectfully submitted,

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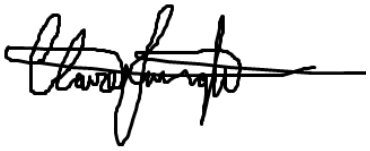

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