

**STATE OF CONNECTICUT**

**PUBLIC UTILITIES REGULATORY AUTHORITY**

**RE: PURA INVESTIGATION INTO : DOCKET NO. 17-12-03RE02**  
**DISTRIBUTION SYSTEM : :**  
**PLANNING OF THE : :**  
**ELECTRIC DISTRIBUTION : :**  
**COMPANIES—ADVANCED : :**  
**METERING : :**  
**INFRASTRUCTURE : APRIL 21, 2020**

**COMMENTS OF  
WILLIAM TONG, ATTORNEY GENERAL  
FOR THE STATE OF CONNECTICUT**

William Tong, Attorney General for the State of Connecticut, hereby respectfully submits his Comments in response to the Notice of Request for Written Comments issued by the Public Utilities Regulatory Authority (“PURA” or “Authority”) on March 31, 2020 (“Notice”) with regard to PURA’s Draft Request for Proposals for Advanced Metering Infrastructure (“AMI”) Business and Implementation Plans (“Draft RFP”). The Attorney General appreciates PURA’s careful attention to the significant costs associated with further AMI deployment in the state as well as its thorough analysis of whether and how AMI may benefit all ratepayers.

**I. INTRODUCTION**

This proceeding requires deliberation of two fundamental questions. First, does further AMI deployment make economic sense in Connecticut? Second, if AMI deployment makes economic sense overall, how can PURA ensure that it is applied in a manner that is fair to all groups of residential electric ratepayers, especially those already unable or struggling to pay their electric bills?

Buying new generations of meters will unquestionably cost ratepayers many millions of dollars. On the other hand, the electric distribution companies (“EDCs”) stand to profit in the millions of dollars because they will be entitled to receive a rate of return—that is, a profit—on their new investments in meters. The key questions PURA must answer in this proceeding are 1) whether new meters offer clear demonstrable value not only to the utilities, but to the ratepayers, and 2) if so, whether that value will be fairly shared by all ratepayers?

Consideration of these fundamental questions is especially critical during this time of unprecedented economic upheaval from the COVID-19 public health and safety crisis, which may have economic and social reverberations for many years to come. Economically disadvantaged and minority citizens are experiencing far higher incidences of COVID-19 infections and far higher mortality rates than others. Even in ordinary economic times, the high cost of residential electric bills in Connecticut affects people’s lives—and the decisions they make on how to allocate scarce financial resources—in a very real way. During all times, and especially in a time of public health and economic crisis, underserved classes of consumers must neither subsidize nor be disadvantaged by new electric initiatives. Every penny added to an electric bill must be scrutinized, and every penny must be determined to be both cost-effective and equitable to all cross-sections of residential electric ratepayers.

Among the considerations PURA must analyze are the following:

- To the extent that new metering approaches will require individual ratepayers to actively manage their electricity usage, or to invest in expensive new technology to manage it for them, will ratepayers in all economic circumstances benefit equally or fairly? In conducting this analysis, PURA should insist on actual data from comparably situated states regarding the differential impact of all proposed changes on low-income customers.

- To the extent that new metering approaches will require different rates at different times of day, how will those rates impact persons, such as parents home with young children, those with disabilities, retirees, and those without access to advanced technology, as compared to other ratepayers?
- How will the new metering approaches affect renters as compared to homeowners? Will renters whose electricity is included in their rent receive any benefit?
- Will owners and renters in older or substandard housing that may not meet current code requirements be able to benefit in a meaningful way?

In addition, the final RFP should require analysis of whether time of use (“TOU”) rates are necessary to realize the benefits of AMI and, if so, whether TOU rates must be mandatory, opt-in, or opt-out. This analysis should also specifically consider how retail choice options would interact with TOU rate structures and any potential barriers. Finally, the Attorney General respectfully recommends that PURA require RFP respondents to address whether there is a need for third-party cybersecurity audit and cyber insurance requirements in their proposals.

## **II. PROCEDURAL BACKGROUND**

PURA opened the present docket on October 3, 2019 to investigate statewide deployment of AMI by the Connecticut EDCs, including developing a business case for AMI deployment in Connecticut, as appropriate, as well as enhancing utilization of existing assets.<sup>1</sup> PURA developed the Draft RFP based on the record established through the Solutions Days held on

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<sup>1</sup> PURA specified a series of reopener proceedings to further investigate a number of topics identified as integral to realizing the objectives outlined in its Framework for an Equitable Modern Grid; the present docket investigating cost-effective AMI deployment is one of these reopener proceedings. *See* Docket No. 17-12-03, *PURA Investigation into Distribution System Planning of the Electric Distribution Companies*, PURA Interim Decision, at 24-25, dated Oct. 2, 2019.

November 15, 2019 and December 17, 2019. The Draft RFP seeks proposals from all interested stakeholders, industry experts, and technology providers, and notes that proposals may address some or all of the stated objectives:

- Develop the business case for the cost-effective deployment of statewide AMI;
- Enhance the utilization of existing assets (for AMI deployment); and
- Maximize the value AMI provides to the EDCs and their customers by strategically implementing AMI.

PURA's Notice sought Written Comments on PURA's Draft RFP by April 21, 2020.

See Notice at 4, Table 2. Thereafter, PURA expects to issue a final RFP for AMI Business and Implementation Plans between May 1-7, 2020, and respondents then have until July 31, 2020 to respond to the final RFP. *See id.*

The Attorney General appreciates the opportunity to provide the Comments on the Draft RFP for AMI Business and Implementation Plans provided herein as well as the recommended redlines to the Draft RFP in Attachment A hereto.

### **III. DISCUSSION**

#### **A. The RFP Should Require Analysis Related to the Expectations and Capabilities of All Electric Ratepayers to Realize Savings from AMI Implementation**

Given the significant costs of AMI and related infrastructure and systems, vigilant attention must be paid to whether and how those costs may be offset by savings. Even if cost-benefit analyses project savings to customers, PURA must determine *which* customers will realize the savings and whether other customers are subsidizing those savings. The final RFP should specifically address the question of whether and to what extent all residential electric ratepayers will have access to and the time to use new data to obtain projected savings, including sufficient internet and smart phone access. In this analysis, it is important to bear in mind the

different metering infrastructures that the EDCs currently have in place, and hence the different magnitude of costs required for AMI implementation.

The United Illuminating Company (“UI”) has been deploying AMI meters and the supporting communication infrastructure for some time. As of September 2018, UI implemented AMI to approximately 74% of its customer base and intends to continue the progression to full AMI deployment. *See* Docket No. 17-12-03, *PURA Investigation into Distribution System Planning of the Electric Distribution Companies*, UI response to OCC-061, dated Sept. 12, 2018. Eversource, in contrast, has been preparing to transition its automatic meter reading (“AMR”) infrastructure to AMI through the orderly installation of Bridge meters that can operate on its existing AMR infrastructure until it is prepared to convert to AMI. Since 2018, Eversource has been replacing failed AMR meters with Bridge meters in AMR mode. *See* Docket No. 17-12-03, Eversource response to OCC-047, dated Aug. 31, 2018. Eversource has installed approximately 258,000 Bridge meters, or 7.5% of the company’s total meter population, across all of its electric operating companies since 2018. *See* Docket No. 17-12-03, Eversource response to OCC-070, dated Oct. 12, 2018.

Eversource currently operates Bridge meters in AMR mode, and cannot leverage AMI capabilities until last mile communications infrastructure is in place and several system upgrades have occurred. *See* Docket No. 17-12-03, Eversource response to OCC-072, dated Oct. 12, 2018. Eversource has indicated that “[a] comprehensive AMI roll-out would require substantial implementation work and investment activity in *all other* physical and information technology infrastructure that would interplay with the AMI technology.” Written Comments of Eversource Energy, at 9, dated Dec. 9, 2019 (“Eversource Written Comments”). The costs of AMI and related infrastructure are very significant, well beyond the scale of any “normal course of business” investments that Eversource might make. *Id.* at 7.

In view of the substantial costs of AMI and related infrastructure, especially in Eversource territory, it is important to consider whether and where any savings may be achieved. Eversource has recognized that the significant costs of AMI and related infrastructure “will not be offset by operating cost savings generated through implementation of AMI” and that its “research, analysis and experience indicates that it is unlikely that material operational savings will arise from the implementation of AMI because the operational cost savings that other jurisdictions have realized in that regard relate to the achievement of functionalities already enabled in Connecticut by the AMR system.” *Id.*

Eversource expects that cost-benefit analysis of AMI conversion will show that any potential benefits arising from AMI implementation would be realized primarily by the customer, either by reducing their energy consumption or by reducing peak loads and thereby reducing energy market prices. These impacts would accrue directly to the customer rather than reducing the cost to operate the distribution grid. *See Eversource Written Comments at 8.* Theoretically, Eversource customers may reduce their consumption and therefore benefit from AMI implementation through more timely updates from Eversource such as mid-cycle high bill alerts and customer-directed bill alerts. *See id.* at 12.

Any cost-benefit analysis of AMI should address the realistic expectations and capabilities of Connecticut electric ratepayers for access to real-time data and information that AMI implementation enables, including: how many electric customers actually want access to such real-time energy data and are motivated to use that data? and, equally important, how many electric customers have the technological resources to use such real-time data to generate energy savings? Specifically, all cost-benefit analyses and business case scenarios must address the classes of customers which are precluded from realizing benefits from AMI due to a variety of factors, including old housing stock preventing AMI installation, inadequate internet access, lack

of smart phone access to utilize energy saving “apps,” or socioeconomic factors including educational inequities that may hinder some customers from realizing the benefits of AMI.

**B. Time of Use Rates Should Be Considered in AMI Cost-Effectiveness Analysis**

The Draft RFP indicates that rate design is a factor to consider in business and implementation plans for AMI. The Attorney General recommends that the final RFP specifically require a comprehensive analysis of whether TOU rates are necessary to realize benefits from AMI and, if so, what those TOU rate differentials must be and whether the TOU rates must be mandatory, opt-in, or opt-out.

Moreover, this analysis should specifically consider whether and how retail choice supply options would interact with TOU rate structures and any potential barriers. Recently, the Massachusetts Department of Public Utilities (“DPU” or “Department”) recognized the complexities of retail supply choice as it relates to realizing benefits from AMI and TOU rates. *See* Massachusetts Decision & Order, dated May 10, 2018.<sup>2</sup> The DPU stated that the evidence in its proceeding revealed weaknesses in the business case for advanced metering functionality presented by each company. *See id.* at 1. The DPU acknowledged that the collective success of advanced metering and dynamic pricing is linked to widespread adoption of dynamic pricing products from the competitive supply market, which at present faces significant barriers. *See id.* at 2-3. As a result, the DPU declined to pre-authorize any customer-facing investments. *See id.* at 1.

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<sup>2</sup> D.P.U. 15-120, *Petition of Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid for Approval by the Department of Public Utilities of its Grid Modernization Plan*; D.P.U. 15-121, *Petition of Fitchburg Gas and Electric Light Company d/b/a Unitil for Approval by the Department of Public Utilities of its Grid Modernization Plan*; D.P.U. 15-122, *Petition of NSTAR Electric Company and Western Massachusetts Electric Company, each d/b/a Eversource Energy, for Approval by the Department of Public Utilities of their Grid Modernization Plan*, Decision & Order, dated May 10, 2018.

Specifically, in its Decision, dated May 10, 2018, the DPU found that:

[T]he primary benefits of advanced metering functionality are derived from reduced peak usage as customers respond to pricing signals. Achieving this benefit requires customers to participate in time varying rates or other dynamic pricing programs. As more customers migrate off of basic service to alternatives, such as municipal aggregation, the Department would need the certainty of wide adoption of dynamic pricing products from the competitive supply market to maximize the benefits of advanced metering functionality. Without such wide adoption, the Department lacks the needed assurance that the benefits associated with advanced metering functionality will justify the substantial costs.

*Id.* at 2-3. Given the regulatory experience in Massachusetts, the Attorney General recommends that the final RFP require a robust analysis of whether TOU rates are necessary to realize benefits from AMI and, if so, what those rates should be and whether the TOU rates must be mandatory, opt-in, or opt-out.

This TOU rates analysis should include whether the benefits of TOU rates would be evenly distributed to all residential ratepayers. For instance, there are certain types of residential customers who are unable to shift their electric usage to off-peak times such as senior citizens, those who work from home, those who work second or third shift, or those with children at home during the day. These types of customers may not be able to take advantage of time-varying rates nor afford the associated controlling technologies. Thus, the TOU rates analysis should consider how this rate design would affect all groups of residential ratepayers and determine whether any groups would be disadvantaged by not receiving any benefits or electric bill savings from TOU rates.

The final RFP should also require consideration of whether there are corresponding systems upgrades that the EDCs would need to make to support TOU rates. For instance, Eversource has indicated the need for “potential billing system upgrades in order to enable time-varying rates or other potential rate structures.” Docket No. 17-12-03, Eversource Brief, at 8, dated Nov. 30, 2018. If billing system upgrades are

necessary to support TOU rates, Eversource should include the incumbent costs in its cost-benefit analysis for AMI.

C. **The RFP Should Require Respondents to Address Third-Party Cybersecurity Audits and Cyber Insurance Requirements in Their Data Privacy Proposal**

Data security and privacy concerns are critical to any consideration of increased AMI deployment in Connecticut. The Attorney General appreciates PURA's overall consideration of data security and privacy concerns related to AMI in Section D of the Draft RFP, including addressing AMI data ownership as well as customer choice and consent. The Attorney General, however, respectfully recommends that PURA also require respondents to specifically address the value of third-party cybersecurity audits and cyber insurance requirements in their proposals.

While cybersecurity audit and insurance requirements are not specifically addressed in the Draft RFP or the U.S. Department of Energy's DataGuard Voluntary Code of Conduct ("VCC"),<sup>3</sup> respondents may contemplate them as part of the cybersecurity risk management program called for in Section 4 of the VCC. These are two potential elements of a comprehensive cybersecurity program that are worthy of specific consideration in PURA's final RFP. Audits are important tools with respect to oversight of third-party vendors and sub-vendors who have touchpoints with customer data from AMI. Requiring respondents to specifically address the need for third-party cybersecurity audit requirements would be consistent with the principles of the VCC, which is intended to apply to "both utilities and third parties." *See* VCC at 1.

Similarly, cyber insurance can serve as an effective tool for mitigating cybersecurity risks and financial costs associated with data breaches. To that end, the final RFP should also ask

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<sup>3</sup> PURA took administrative notice of the VCC on February 7, 2020. *See* PURA Notice of Admitted Evidence, dated Feb. 7, 2020.

respondents to address whether there should be cyber insurance requirements for entities that receive or exchange AMI customer data.

**D. Docket Participants Should Have the Opportunity to Submit Comments on PURA's Final RFP**

Finally, as a procedural matter, the Attorney General supports Eversource's recommendation that all docket participants receive an additional opportunity to submit Written Comments in late May or early June 2020 providing input on PURA's final RFP and recommended components of the AMI Business and Implementation Plans. *See* Eversource Motion for Clarification, at 3, dated Apr. 6, 2020. This would promote greater procedural efficiency by enabling any respondent to provide the most comprehensive response to the final RFP by July 31, 2020. *See id.* Moreover, this additional procedural opportunity to participate would not delay PURA's schedule for this proceeding. *See id.* at 4.

**IV. CONCLUSION**

The Attorney General appreciates the opportunity to provide these Comments on PURA's Draft RFP for AMI Business and Implementation Plans and recommended redlines to the Draft RFP in Attachment A hereto. The Attorney General looks forward to continued participation in this important docket.

Respectfully submitted,

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I hereby certify that a copy  
of the foregoing has been  
electronically sent to all known  
parties and intervenors of record this  
21<sup>st</sup> day of April, 2020.

/s/ Lauren H. Bidra  
Lauren H. Bidra  
Commissioner of the Superior Court