



April 8, 2019

#### BY OVERNIGHT MAIL AND E-MAIL

Debra A. Howland, Executive Director and Secretary New Hampshire Public Utilities Commission 21 S. Fruit Street, Suite 10 Concord, NH 03301-2429

RE: Docket No. IR 15-296

Dear Director Howland:

Enclosed on behalf of Unitil Energy Systems, Inc. ("Unitil"), are an original and six copies of Unitil's Comments on the Staff Recommendation on Grid Modernization Report, dated January 31, 2019, and issued on February 12, 2019 in the above referenced docket. Thank you for your attention to this matter.

Sincerely,

Gary Epler

Attorney for Unitil Energy Systems, Inc.

cc: Office of the Consumer Advocate

Service List (by e-mail)

# State of New Hampshire

#### **Public Utilities Commission**

IR 15-296

Initial Comments of Unitil Energy Systems, Inc. on Commission Staff Report

Unitil Energy Systems, Inc. ("UES" or the "Company") appreciates the opportunity to submit the following comments on the Staff Recommendation on Grid Modernization Report, dated January 31, 2019, and issued on February 12, 2019 (hereinafter called "Report"). These comments follow the technical session held on March 25, 2019, which allowed the Company to gain a better understanding of the recommendations in the Report. The comments are organized into general comments and then comments for each of the specific areas identified on page 77 of the Report.

## **General Comments:**

1. The Company is generally supportive an amendable to continuing with a working group process to attempt to reach consensus on a number of outstanding issues. However, there are several concerns:

First, there needs to be a common understanding of the working group process and how issues which remain open or unresolved when that process is complete will be addressed, and the time frame within which that resolution would occur, in order to understand how that will impact the schedule for developing the contemplated Integrated Distribution Plan ("IDP"). Second, there may be issues that are better suited for individual company rather than generic industry working groups, and those should be delineated. Additionally, the end result that the working groups are to be charged with attempting to achieve should be clear to all participants. The working groups will be challenged to address issues that are conceptual in nature and may take time for the utilities and the stakeholders to develop a common approach to the assumptions and analysis. The working groups should be limited in scope and focused on developing common assumptions, methodologies and outcomes.

Third, the Report contemplates a schedule that will begin a number of working groups in May 2019, lasting nine months (most optimistically, through January 2020) with a final IDP required to be filed in May 2020. This allows an insufficient period of only three to four months for the companies to complete their plans. The working groups' conclusions should be reached prior to starting the clock on developing the IDP.

- 2. The Company supports Staff's recommendation for an "incremental and gradual approach for modernizing the grid." The Company recommends a flexible approach to grid modernization plans which allows the utilities the ability to take advantage of changes in technology and capabilities.
- 3. Most importantly, distribution system planning must remain under the control of the utilities. The working group process contemplated in the Working Group Report provides stakeholders with ample opportunity to participate in the develop of the plan, but the planning, design and operation of the distribution system is the responsibility of the utilities and needs to remain as such. As the Working Group agreed, stakeholders will be involved in pre-planning, project identification and consideration, and project prioritization.<sup>2</sup>

#### Cost-Effectiveness Framework:

The Company supports a working group for developing a state-wide cost-effectiveness framework. The Company agrees that the total resource cost test is appropriate for Energy Efficiency and reduced generation, transmission and distribution costs. The Company does not agree with the Staff recommendation to add "business as usual" projects into the cost effectiveness framework. Many of the "business as usual" projects include items that are required to provide safe and reliable service. In comparison, grid modernization initiatives add functionality or reduce energy usage resulting in savings to customers. The Company recommends the cost-effectiveness framework be limited to grid modernization initiatives.

#### **Utility Cost Recovery and Performance Incentives:**

The Company is not clear whether a working group is required in this area. The Company does not support the Staff's recommendation that recovery of grid modernization investments only take place through volumetric charges. The Company has concerns that this approach will shift costs unfairly across the rate classes. The Company recommends a focus on cost causation and cost recovery should follow rate design principles approved in the most recent rate case. The Company supports an annual step adjustment approach for capital spending. O&M expenditures should be subject to a cost reconciling mechanism. Any movement towards revenue decoupling should compensate the utilities for lost growth, as well as recognize that certain expenditures, particularly in the nature of grid modernization investments, may be for non-revenue producing items. When the Company experiences growth in its territory, revenues from that growth have been used to fund capital expenditures and rising

<sup>&</sup>lt;sup>1</sup> Working Group Report at page 45.

<sup>&</sup>lt;sup>2</sup> Working Group Report at page 45.

inflation between rate cases. A move towards decoupling without a new cost recovery framework may result in more frequent rate cases.

### Utility and Customer Data and Data Access:

The Company protects its utility specific data closely and recommends against sharing any information that compromises security of that data and the system. The Company supports the sharing of customer data on an aggregated level. Customer specific data must be obscured to maintain the privacy of the customer. Customers should have the opportunity to opt-out of sharing their data, even at an aggregated level. Customers should have the opportunity to opt-in for sharing any customer specific data. The Company recommends a combined working group for Data, Cyber Security and Privacy.

## Hosting Capacity Analysis ("HCA"):

The Company supports the development of a mapping tool that can be used by customers to help guide their DER development opportunities. HCA analysis requires a common approach, common set of assumptions, and a common refresh rate by all of the utilities. Investments in system visibility and load flow modeling capabilities are required to calculate detailed hosting capacity values. The Company supports a working group for HCA analysis.

#### **Locational Value Analysis:**

The Commission, through the DE 16-576 pilot, already has a working group assembled to develop the scope of a locational value analysis. The Company recommends continuing with this working group approach and study. Locational value analysis cannot be completed until it is addressed in the study proposed by the Commission.

#### Metering:

Each utility is in a different position with regard to metering functionality. The metering functionality required will be driven by the rate plans that are contemplated (i.e., TVR or TOU). The Company recommends an opt-in model to support Staff's incremental and gradual approach for modernizing the grid. The rate model chosen could also have a significant impact on the Company's billing system. The design and requirements of a metering system is very plan specific. A working group might be helpful to determine the requirements of TVR or other rate structures that would have an impact on the metering system. The Staff Report states that "AMF can be used to meet the following goals and objectives: reduce costs and increase affordability, enable customers, enable DER integration, operational excellence, and flexibility." As these objectives may

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<sup>&</sup>lt;sup>3</sup> Report at 52

conflict with each other depending on the implementation approach, it would be helpful for the Commission to provide guidance on the level of priority (or weight) for each of these objectives.

## **Customer Education:**

The Company agrees with Staff's recommendation that the utilities should take the lead in educating customers on grid modernization opportunities and activities. Customer education is extremely plan specific and each company will need to develop their own strategies for educating their customer base on the planned investments and how those investments increase the opportunities or activities available to the customer. The Company believes a utility-specific grid modernization website portal is the best option to educate and engage customers in grid modernization. It should offer customer education on grid modernization, pricing structures and customer data analyses with recommended cost saving measures. The simpler and more complete the web portal, the higher the number of customers who will experience the benefits of grid modernization. The Company does not believe a working group is necessary.

# **Strategic Electrification**:

As stated in previous comments filed in this Docket, the Company is adapting its business model in order to allow our distribution system to become an "enabling platform" supporting diverse activities by third parties and electricity customers. Some customers may choose electrification and some may not. The level of these activities will be driven by market development as well as legislative policies and subsidies.

The Company supports Staff's recommendation that utilities should incorporate the widespread adoption of electric vehicles and efficient electric appliances into the company's load forecasting. In addition, although it may not be necessary to dedicate a section of a utility's IDP to a company-driven plan for electrification, the Company agrees that appropriate tariffs and infrastructure must be in place in order for the utility to support and enable the broad adoption of these technologies by its customers. The Company supports a working group to address strategic electrification.

#### Rate Design:

It has been longstanding industry practice that rates should reflect cost causation. Rate design focusing on cost causation is the most sustainable approach going forward. Even under the current rate design, however, certain customer classes are favored largely due to principles of rate continuity and certain modes of pricing are expected even if they don't reflect cost causation. To the extent new market services or business models are built around this imperfect foundation, there will be large inefficiencies, potential gaming and inefficient delivery. The Company agrees that there should be minimization of socialization of costs to the extent not otherwise required by rule or

statute. Certain customers or groups of customers should shoulder the burden that they impose on the system.

Generally, the Company submits that distribution costs do not vary with time, and the Company supports a flexible approach to recover costs where they should be recovered (i.e. a combination of demand charge, customer charge and volumetric rates). Customer charges should recover all customer-related costs based on a cost of service study in the most recent base rate case, and take into consideration generally accepted rate design principles. The minimum size of equipment commonly installed by the utility represents the costs by customers in order to connect the minimum load to the system.

The Company continues to support a demand charge for Distributed Energy Resource ("DER") customers. The Company supports the decision for a rate design working group which should also tie into the desire for TVR or TOU rate structures. Generally, rate design issues such as these, when consensus cannot be achieved through a working group, should be decided in a company specific rate case proceeding, rather than in a generic docket such as this.

#### **DER Pricing Structure:**

The Company believes that competing investments need to be designed and evaluated based upon similar reliability, availability, capacity and life span. As utilities are not compensated for the "value" they provide over regulated costs, neither should the DER investments. Customers will lose this benefit if they have to pay for an inflated "value of solar." The Commission has an open docket for determining Net Metering costs, and a DER pricing structure should continue to be addressed in that docket as opposed to the Grid Modernization docket. The ongoing studies for the Value of Solar and the Locational Value of DER will provide input to the DER pricing structure. This discussion should be deferred until these other studies are made available.

## Consolidated Billing:

The Company reiterates the utility comments made in the Working Group report.<sup>4</sup> The Company does not support a model that allows a third party competitive supplier the ability to bill not only the energy supply, but also the Company's delivery charge. The utilities are the only entities that have oversight by the Public Utilities Commission to ensure consumer protection. A new approach would: 1) weaken the Commission's ability to enforce regulations on billing and collections because the existing rules do not apply to these third parties; 2) weaken the relationship between the utility and its customers; and 3) create customer confusion as to which company is ultimately responsible for service and who to call in the event of an emergency. The financial risk of timely and accurate receipt payments from a third party could affect the financial

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<sup>&</sup>lt;sup>4</sup> Grid Modernization in New Hampshire from the Grid Modernization Working Group at page 28

integrity of the utilities and this risk could be substantial. The utilities are the supplier of last resort, which requires the utility to keep a billing system to bill those customers who do not take supplier service. The Company does not support Consolidated Billing and does not support a working group to discuss it.

## **Cyber Security:**

The Company does not believe that two way communication between the customer and the utility needs to exist. Two-way communications with the customer, utilizing the utility's metering field area network is inherently risky for the utility and must be avoided as security is of utmost importance. The Company can only secure its systems but not the systems managed by the customer. Each time we connect to another network it reduces and adds challenges to cyber resiliency. Additionally, integrating these systems will introduce complexities in design that will occur as systems age. If data sharing through the metering infrastructure becomes a requirement, the utility should plan for more frequent meter and field area network upgrades and include these costs/complexities in the cost/benefit analysis. The Commission might consider other solutions that provide the same data without the inherit risk: in particular, market available home energy systems and data sharing via web means instead of a direct communications link between the customer and utility.

Home energy management systems have become more prolific and less expensive. Many of these are readily available to the customers now at home department stores, on-line markets and even broadband vendors. If utilities are asked to share data directly with customers through their field area networks, these market alternatives should also be evaluated for cost and capability considerations.

Customer data sharing, security and privacy may be in conflict with each other depending on the data sharing approach. Deference should be given to the customer's desire to maintain security and privacy, and as such, the customer should opt-in to any personal data sharing and be allowed to opt out of sharing data even if in aggregate. Before designing a customer data sharing platform, this critical issue should be fully vetted and addressed to ensure Utilities do not build systems that would not deliver the value expected due to customer data sharing concerns.

Unitil agrees that customers and their approved third parties should have access to usage data. In order to encourage programs and applications development, this information should be shared using common data models, API's, and processes. The addition of a third party hosting agency is likely to add additional cost and security concerns and should not be the first choice when designing a data sharing platform. Instead, the focus should be on common standards which will provide the same or similar benefit as data from various utilities can be easily combined using this

"virtual" state wide platform. Before engaging a third party to manage or host state-wide data, a full cost/benefit analysis should be performed to ensure this additional cost is justified by any perceived third party benefit.

The Company recommends that cyber security, data and privacy be considered together as a working group topic. This topic should undergo regular review as technology and threat landscapes change.

### Performance Metrics:

Performance metrics can help to provide transparency and clarity with respect to progress in implementing grid modernization functionalities and capabilities. They can also gauge the impact to customers directly attributable to grid modernization investments and yield insight to inform future grid modernization investments. However, metrics should meet three threshold standards: 1) objectively measure the impact of grid modernization investment; 2) have an agreed upon and well-understood baseline or a starting point; and 3) measure items within the Company's control related to grid modernization investments.

The Companies should work together to develop a common set of statewide and company specific performance and infrastructure metrics. These metrics should have consistent definitions, approaches and calculations to ensure all of the utilities are reporting in the same manner.

The Company supports a working group to develop metrics. However, the metrics many not be able to be created until the companies have an understanding of the proposed grid modernization investments. The timing of this working group should be deferred to later in the plan development process.

#### **Annual Reporting Requirements:**

The goal of an annual filing should be to report on the Company's progress towards implementing its grid modernization plan. This should not result in the opportunity for others to re-evaluate the justification or prudence of the original plan or order. There is a great deal of information required in the initial plan. If this level of data and evaluation is required on an annual basis, it may lead to increased costs and the need for additional resources to complete this level of effort. The annual report should be limited to information related to 1) what was planned to occur in the year, 2) what happened in the year, and 3) what is proposed to happen next year. The Company supports Staff's recommendation to develop a working group to detail the information required for the annual reports.

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