ALLIANCE TO SAVE ENERGY

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September 2, 2016

Commissioner Travis Kavulla, President
NARUC Staff Subcommittee on Rate Design
National Association of Regulatory Utility Commissioners
1101 Vermont Avenue, NW, Suite 200
Washington, DC 20005

Via: responses@naruc.org

Comments of the Alliance to Save Energy to the National Association of Regulatory Utility Commissioners (NARUC) Staff Subcommittee on Rate Design on the NARUC Manual on Distributed Energy Resources Compensation Draft

Dear President Kavulla and Members of the Staff Subcommittee on Rate Design:

The Alliance to Save Energy (Alliance) would like to thank NARUC for the opportunity to comment on the draft Manual on Distributed Energy Resources (DER) Compensation (Manual).

The Alliance is a nonprofit coalition of bipartisan lawmakers, businesses, and environmental and consumer thought leaders that supports energy efficiency (EE) as a cost-effective energy resource to achieve a healthier economy, a cleaner environment, and greater energy security. The Alliance is led by a diverse and bipartisan board of directors comprised of members of Congress and corporate and nonprofit executives united by the desire to see American families and businesses save money and energy and to ensure a healthy environment for future generations.

We appreciate the yeoman's task that the Staff Subcommittee on Rate Design performed in the compilation of this Manual. The Manual does an admirable job of reconciling a broadly diverse set of opinions from the States. That said, we find there are areas in the Manual that would benefit from an explicit focus on EE and demand response (DR) resources and the impacts of rate design on their viability in the marketplace. While EE and DR may have structural similarities to other distributed resources with respect to their effects on the distribution system, there also are important variations. As least-cost energy resources and accessible strategies for consumers to control their energy costs, we advise that the Manual be augmented to dedicate specific focus on EE and DR.

In addition, we encourage NARUC to include an expanded discussion of core rate design principles to help inform Commissioners as they work to balance competing and sometimes contradictory interests. Finally, we do not agree with the characterization of the complexity and appropriateness of including EE in a regulator's view of DER, and ask that a particular section of the draft be removed or rewritten as noted in the detailed comments below.

The draft Manual will provide good guidance to Commissions in a rapidly changing technology and regulatory landscape if it is kept up-to-date - and therefore meaningful - to its readers. We urge NARUC to view this as a living document, and to establish procedures for revision that will ensure transparency, such as making public the various comments it receives. We also recommend that NARUC establish the Staff Subcommittee as a permanent entity to manage the evolution of this Manual is critical to attaining this goal.

The Alliance recommends that the Manual draw attention to the effect of rate design on energy efficiency and demand response in the same way it does other DER.

Demand side management is a least-cost energy resource and an accessible strategy for consumers to control their energy costs, reduce demand on the distribution system and mitigate the environmental impacts of energy use. As such, the Alliance advises that specific focus be made on demand side management. Specifically, the Manual should draw attention to the effect of rate design on EE and DR in the same way it does other DER.

In section II.B (Introduction to Rate Design),[1] the Manual does include references in a few sections, such as block rates, but additional discussion in the Time Varying Rates section is warranted. For instance, in the discussion on Critical Peak Pricing (CPP), it would be beneficial to inform the reader that DR is a market-ready tool to pair with a CPP rate structure that can bring the many benefits of controlling and managing peak loads. Likewise, in the section II.C (Other Considerations), EE is particularly well positioned for additional discussion in subsection 3 (Rate design as social policy) and subsection 4 (Low-income needs/Affordability).[2] Due to its low-cost and scalable nature, EE is and should continue to be a policy objective for many states. This is particularly important when discussing the context of affordability and the energy burden on low-income customers.

The sections on alternative rate designs focus mainly on how utilities could design rates to create a more equal distribution of costs to net energy metering (NEM) customers as well as non-NEM customers. While this is an important driver in current changes to rate design and vital to improving equity, there is little attention paid to how alternative rate designs would impact the deployment of EE and DR resources. Given the heterogeneous composition of DER, it logically follows that rate designs will not homogenously impact each technology – which may impact customers in a way that is yet unconsidered.

Section V (Compensation Methodologies)[3] largely focuses on NEM and distributed generation (DG), mainly PV. While PV and EE/DR structurally share a similar trait in reducing the demand on the system, they do so in very different ways. As such, certain rates designs will impact these resources quite differently. For example, a minimum bill might have a large effect on a PV resource, but a small impact on an EE or DR resource. Conversely, a rate design that contains a large fixed charge could negatively impact both PV and EE resources, but might not affect DR resources. For this reason, it is important to draw attention to such effects in the Manual. ***The Alliance believes that policy makers relying on the Manual should be provided with additional details on how each choice impacts the specific technologies that they are considering.***

Furthermore, each of the technologies and services included in the definition of DER are further discussed in Section III.B (Types of DER Technologies and Services)[4], ***inexplicably excluding EE***. ***The Alliance recommends that a similar discussion of the uses of EE and DR, and their benefits as a DER should be added.***

The Alliance recommends that NARUC expand on its principles of rate design to include technology neutrality.

The draft Manual offers principles of rate design as developed through James Bonbright's *Principles of Public Utility Rates*.[5] These principles focus primarily on three objectives: equity, fairness, and economic efficiency. The Alliance commends NARUC for adherence to these time-tested principles, and appreciates the due consideration given them. ***The Alliance asserts, however, that these principles can and should be expanded to include the principle of technology neutrality***.

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[1] NARUC Draft DER Compensation Manual at 10.
[2] *Id*. at 12.
[3] *Id*. at 41.
[4] *Id*. at 17.
[5] *Id*. at 6-7.

The inclusion of a technology consideration encourages the utility to design an alternative technology-neutral rate structure in order to avoid encouraging the adoption of certain technologies while discouraging the adoption of others. This approach also would enable the adoption of technologies in a manner which more effectively manages energy use through a robust portfolio of resources, and where each technology resource is deployed in a manner that optimizes its benefit for its owner and the grid.

The draft Manual does not currently include much variety in its discussion on technology. As previously discussed, much of the proposed compensation methodology is primarily aimed toward NEM and DG customers, and for that, mainly solar PV. While this is understandable given the intense focus on NEM, ***the overly-narrow focus risks missing potential adverse effects on a least-cost, easily accessible resource for customers***. Rate design will impact all forms of DER in some manner or another, and while it is certain that distributed PV will continue to be a prominent DER in the future, many other resources such as EE and DR must also continue to be developed to maximize the likelihood of mutually beneficial outcomes. This requires a broader focus to encourage any DER technology where and when it is appropriate and cost-effective and to create a rate design that is able to adapt with changing technology.

The Alliance also commends NARUC for including instances of concerns about economic efficiency in the draft Manual. In particular, there is emphasis on determining which rate structure provides the most appropriate price signal in order to reach the most economically efficient use of resources and consumption of energy. The draft Manual also discusses the arguments surrounding the appropriate marginal cost to be considered, long-run or short-run. It also encourages regulators to maintain flexibility in compensation policy to encourage adaptation with a changing environment.

The Alliance does not agree with the characterization of the complexity and appropriateness of including EE in a regulator's view of DER

In section III.C (Expanding the Definition of "Resource"), the draft Manual opines that

> "[m]easurement and forecasting play a large part in EE, and whether the assumptions that are required for predicting what the demand/supply would look like absent EE, adds significant complexity to the issue of determining what is the "resource" value of the EE. A regulator will need to determine whether or not it is appropriate to include EE in its consideration of DER."[6]

We do not agree with the crux of the statement, and it unfairly singles out EE as the only resource facing these types of challenges. In fact, nearly every DER discussed in the Manual necessarily relies on "measurement and forecasting" to determine the value of electricity that will be generated or avoided at some point in the future.

There are multiple ways in which the value of EE can be determined, some more complex than the others. At the simplest, one can use already-established forecasts such as the Energy Information Administration's (EIA) Annual Energy Outlook.[7] This report contains price information for 22 different regions broken down both by customer class (e.g. residential, commercial, and industrial) and by service category (e.g. generation, transmission, and distribution) through 2040. While EIA's price forecast does not capture all benefits of EE or DR, determining a value of avoided energy is no more complex than downloading the information from EIA's website.

More comprehensive studies can be performed to quantify additional benefits of EE and DR. A number of avoided cost studies have been performed that analyze the impact of avoiding capacity (both generation and

[6] *Supra* 3 at 20.
[7] *Annual Energy Outlook*, Energy Information Administration. Available at http://www.eia.gov/forecasts/aeo/

T&D), avoiding line losses, and avoiding environmental harms, among other benefits.[8] While these studies are typically state- or region-specific, a state that has not yet performed an avoided cost study can use existing results as a proxy for the value of avoided energy and scale up or down as needed.

Aside from overstating the apparent complexity of attaining a resource value for EE, ***the Manual erroneously implies that EE is the only DER that relies on measurement and forecasting.*** In fact, every DER discussed must necessarily rely on measurement and forecasting to determine its value. Solar PV and wind projects can operate well in excess of 20 years. The value they provide is directly tied to the value of energy over the course of their useful life. The only way to establish this value at the time when the developer decides to move forward with a project is to do projections. The same holds true for a CHP resource; forecasts for natural gas prices must be performed to establish the relative cost and benefits of installing the system.

Measurement is no different. Wind and solar are variable resources. While modeling is available to estimate the production from these systems, actual measurement must be done to determine the output, and hence value, of the system's generation. And modeling energy output – much like modeling energy prices – is susceptible to error over a long-term period as weather patterns shift and evolve. This is highlighted not to diminish the importance and value of modeling and forecasting for wind and solar resources, but rather to point out that they, along with EE and DR, face uncertainties regarding their "resource value."

The Alliance recommends strongly that this section be either stricken in its entirety or be substantially reworked to indicate that all DER face challenges related to measurement and forecasting.

Conclusion

The Alliance sincerely appreciates the opportunity to comment on the draft of the NARUC Manual on Distributed Energy Resources Compensation, and applauds NARUC for holding an open stakeholder engagement process. We look forward to continuing to work with the Subcommittee and to provide comment and input as requested.

Should there be any questions about these comments, please contact the undersigned at 202.530.2205 or ksbackman@ase.org.

Sincerely,

Kelly Speakes-Backman
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Alliance to Save Energy

[8] For instance, Synapse Economics performs a biennial update to its *Avoided Energy Supply Costs in New England* report. http://www.synapse-energy.com/project/avoided-energy-supply-costs-new-england