

# COMMENTS OF SUNVERGE ENERGY BEFORE THE NATIONAL ASSOCIATION OF UTILITY REGULATORY COMMISSIONERS (NARUC) DRAFT MANUAL ON DISTRIBUTED ENERGY RESOURCES COMPENSATION September 2, 2016

## 1. INTRODUCTION

Sunverge Energy, Inc. ("Sunverge") appreciates the opportunity to participate in this important discussion about the best ways to support commissioners and regulatory bodies as they grapple with the implications of technology innovation and distributed energy resources.

Sunverge is a California-based technology company focused on optimizing the value of renewable power by leveraging the practical advantages of distributed generation, energy storage and advanced networked communications. The Sunverge platform provides value across multiple domains, including utility operations, customer systems and societal policy objectives. Our current activities and future vision include optimizing distributed energy resources installed at the customer premise to provide both direct customer benefits and new system-level operational capabilities. In general, we encourage policy frameworks that seek to stimulate new opportunities for utilities and market participants alike through business model innovation. Sunverge is active in United States and internationally.<sup>4</sup>

Our comments include observations and recommendations based on our direct experience working with customer-sited energy storage systems that are networked

<sup>&</sup>lt;sup>1</sup> For example, Sunverge is a partner in the largest distributed energy storage project in North America, involving hundreds of homes in New York City and 1.8 megawatts, or 4 megawatt hours, of battery storage. More information is available from http://www.sunverge.com/con-edison-virtual-power-plant-program-combines-solar-storage-improve-grid-resiliency/.

and aggregated to provide a resource to the utility or grid operator. We recognize that the Subcommittee on Rate Design has a purview that extends beyond electricity, but we also observe that the phenomena of distributed energy resources is, for the moment, primarily an issue relevant to electricity regulation. We further recognize that the Subcommittee will be completing this initiative in the coming weeks. As a result, we have attempted to organize our comments so that they can be considered or incorporated for the upcoming final draft.

It is clear that the topic of distributed energy resources has become one of the dominant themes of discussion in the regulatory community, so we applaud the NARUC leadership and the Subcommittee for choosing to focus their time and attention to advancing the discussions within the states and nationwide.

## 2. <u>REMARKS ON ENERGY STORAGE</u>

Energy storage systems bring a unique suite of capabilities that are rooted in a combination of two characteristics that distinguish it from other distributed (or centralized) energy resources. As a result, energy storage systems present similarly unique policy implications that must be considered when implementing a regulatory framework or considering appropriate rate compensation.

First, storage energy allows two-way, fast-response flows of energy. As a result, policy frameworks must be designed with consideration for the most effective ways to address (1) charging, (2) discharging and (3) ancillary services.

Second, storage systems can be deployed at every scale of the electricity system, from bulk energy markets to the distribution system to on-site at the customer premise. Accordingly, implementation strategies must be designed with consideration for realizing benefits at multiple scales. We briefly highlight, at a high level, specific benefits that energy storage brings to various levels of the grid architecture, including:

## Bulk Power System

- Fast-response ramping capabilities
- Increased ability to integrate renewable energy generation
- Load-shifting
- Demand response

• Frequency support

# Distribution System

- Increased distributed energy resource capacity
- Ability to address peak demand needs with local precision
- Capital investment deferral
- Voltage support

## Customer

- Increased reliability and resiliency
- Rate and bill management
- Increased renewable energy utilization

Energy storage is a key component of the value chain for a resilient grid that integrates clean energy and optimizes infrastructure investments. Accordingly, Sunverge supports the development of thoughtful policy regimes and financial incentives to promote the near-term deployment of energy storage systems, particularly networked systems that can provide a variety of services to support grid operations. Storage can play a vital role in enhancing the "carrying capacity" of distribution circuits and congested areas by storing energy locally for use at more advantageous times.

# 3. GENERAL REMARKS ON SUBCOMMITTEE ACTIVITIES

We are encouraged that NARUC has prioritized this topic for discussion and established a Subcommittee on Rate Design. We offer two general comments with regard to the activities of the Subcommittee:

1. Continued Discussions on Related Topics: The question of rate compensation for DER that can replace, augment or complement traditional infrastructure is inextricably linked to compensation for all utility infrastructure investments, so the rate compensation discussion considered in this Draft Manual is taking place within a larger context of issues before commissions. We encourage NARUC to continue to advance discussions that can support commissions and commissioners as they consider related topics, such as:

- Changes to utility business models
- Access to system operation information
- Consumer access to usage and price information

- Design of financial incentives
- Distribution resource planning

2. *Establish an Open Record:* We further encourage NARUC to make available the comments and responses of all parties presented before the Subcommittee during this investigation. Undoubtedly, these comments are a valuable body of knowledge and thoughtful opinions that will allow for a more informed discussion, which we believe is consistent with the objectives of this initiative. Establishing an open public record is also the customary practice all NARUC member commissions, supporting both objectives regarding transparency and to allow all parties to benefit from the development of an informed body of knowledge.

# 4. ENERGY STORAGE RESOURCES

We note that the Draft Manual includes citations regarding the improving economics of energy storage.<sup>2</sup> While we recognize that this report is not intended to be a comprehensive guide to DER technology, we encourage the Subcommittee to notes several additional benefits of energy storage (noted above), but especially including:

- improved reliability,
- backup power
- increased utilization of customer-premise resources
- demand charge and time-of-use rate management
- load balancing
- voltage support

We also note several reports and resources that may be of interest regarding energy storage, including:

- "Resilience for Free: How Solar+Storage Could Protect Multifamily Affordable Housing from Power Outages at Little or No Net Cost" (Clean Energy Group, 2015)<sup>3</sup>
- "Does Energy Storage Fit in an RPS?" (Clean Energy Group, 2016)\*
- "Energy Storage Roadmap for New York's Electric Grid" (NY BEST, 2016)<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> See Draft Manual, p.18 and Note 36.

 $<sup>^{\</sup>circ}$  Available from: http://www.cesa.org/resource-library/resource/resilience-for-free-how-solar-storage-could-protect-multifamily-affordable-housing-from-power-outages-at-little-or-no-net-cost.

 $<sup>\ ^{\</sup>scriptscriptstyle 4} Available \ from: \ http://www.cesa.org/resource-library/resource/does-energy-storage-fit-in-an-rps$ 

#### 5. SPECIFIC RECOMMENDATIONS

Sunverge offers the following overall recommendations regarding the Draft "NARUC Distributed Energy Resources Compensation Manual" released in July:

1. The Manual should offer process recommendations for commissions

As the Draft Manual recognizes, specific rate designs are beyond both the intent and the scope of the Draft Manual. The stated purpose is to, "Assist jurisdictions in identifying issues related to DER and assist regulators in answering questions in a way most appropriate for its jurisdiction." Accordingly, we believe that the Draft Manual can serve that function, not by drawing conclusions about the merits or challenges of any particular rate design, but by providing commissions with the outline or roadmap of a deliberative process. We agree with a statement at the opening of the document that we believe offers an organizing framework for providing process recommendations to NARUC member commissions:

"A jurisdiction will need to: [1] identify its current status regarding DER, [2] what role it expects DER to have in the future, [3] understand the nature of DER adoption rates, and [4] identify necessary policy developments to accommodate that future." *numbering added* 

We have highlighted this statement because we believe that a recommended process could include the following elements:

- (1) **Market Structure**: Identify the "current status," which we take to include the current and anticipated market structure appropriate for that state (e.g, vertically integrated, restructured, market-oriented),
- (2) **Distribution Planning**: Engage in a systematic planning process to determine the current capabilities and infrastructure needs of the distribution grid (i.e., "what role" for DER).

<sup>&</sup>lt;sup>5</sup> Available from: https://www.ny-best.org/sites/default/files/type-page/39090/attachments/NY-BEST%20Roadmap\_2016\_finalspreads.c.pdf

<sup>&</sup>lt;sup>6</sup> Draft NARUC Manual on Distributed Energy Resources Compensation, p. 5.

- (3) Develop Preferred Scenarios: Identify the likely "adoption rates" for DER and which of those may be preferred based in infrastructure needs and policy objectives.
- (4) Design Policy: Based on planning details and policy goals, "identify necessary policy developments to accommodate that future," which we assume requires establishing a proceeding or process to consider the specific for any given jurisdiction.
- 2. The definition of "distributed energy resource" should be clarified.

The Draft Manual observes that "a regulator may need to define DER," and continue by offering a definition. The definition includes certain terms and phrases that we believe would benefit from clarification, including:

- *A DER is a resource that "can also be used by the system"*: This statement raises questions about what constitutes "use" and by whom? As stated, this definition could imply that only resources under direct control of the system operator would be considered DER, which we do not believe is the intended definition;
- *The resources are "connected to the distribution system"*: What constitutes "connected"? Are resources that are deployed behind the customer meter excluded from this definition? We do not believe this is the intent of the definition, so a clarifying statement regarding behind-the-meter resources would strengthen the definition.

#### 3. Systematic distributed resource planning (DRP) should be encouraged:

The Manual observes that, "a utility needs to understand the characteristics of its grid," and that determining the hosting capacity "helps the distribution utility assess the impacts of DER on its feeders...."<sup>7</sup> The Manual also notes that:

In any evaluation, the utility's specific characteristics and their most likely reaction to any rate design changes must be clearly and thoroughly determined before questions and challenges from DER are addressed through rate making changes. The level of transparency and detail on the operations and physical characteristics of a utility's distribution system may be significantly more than may have been employed in the past.<sup>s</sup>

A DRP process is consistent with the an overall objective established in the Draft Manual that regulators explore and implement rates only after, "empirically establishing at what adoption level [DERs] will affect the grid."<sup>9</sup>

Several states (including California and New York), have established open processes for Distributed Resource Planning (DRP) by utilities, with an intended outcome that feeder- or circuit-level information be made available to market participants and project developers. Understanding the operating characteristics of the distribution system seems essential to any thoughtful planning and market development.

We urge NARUC and the Subcommittee to include in their specific process recommendations that commissions establish clearly defined DRP processes and requirements.

## 4. Discussion of rate options should be organized according to classes of market types:

We recognize that the Manual cannot define or recommend the details of specific rates. Similarly, the preferred options for rates, tariffs or other procurement mechanisms (auctions, marketplaces), will vary based on the existing market structure and policy objectives for each state. However, there are some definable

<sup>7</sup> Draft Manual, p. 66.

<sup>&</sup>lt;sup>8</sup> Draft Manual, p. 22.

<sup>&</sup>lt;sup>9</sup> Draft Manual, p. 15.

"classes" of market structure. We believe that providing a framework that identifies typical options associated with various market structures and anticipated deployment scenarios will enhance discussion of rate options.

For example, traditional vertically integrated states that anticipate relatively low deployment numbers may be well served by establishing "value-of-resource" tariffs that provide set rates based on technology types. States that anticipate higher deployment of DER and can identify specific system needs may seek to augment simplified tariffs with targeted procurements and auctions. Finally, states that have prioritized changes to market structures and widespread adoption of DER may view exchange marketplaces as relevant to their deliberations.

We encourage the Subcommittee to consider identifying three basic market structure scenarios (corresponding to low, medium and high deployment scenarios and policy objectives), as follows:

- 1. Resource-Based Rate Structures
- 2. Service-Based Rate Structure, and
- 3. Market-Based Exchanges and Procurements

These market structures can help organize the discussion of various rate options based on their relevance to the anticipated market structure, as depicted in the simplified schematic below:



PROPOSED MARKET STRUCTURE FRAMEWORK:

We encourage the Subcommittee to consider incorporating this (or a similar) framework into the organization of the Manual with regard to the discussion of market structures and corresponding rate options.

# 5. Discussion of technology resources should be organized according to capability:

Section C-III of the Draft Manual discusses "Expanding the Definition of 'Resource'." We agree that this is a vital discussion as new technologies beyond traditional generation are increasingly available to both utilities and consumers. While we recognize that it is likely beyond the scope or intent of the Manual to describe and assess the specific capabilities of various DER technologies, in the same way that we believe that identifying general market classes will help organize and clarify the discussion of rates, we similarly believe that a simplified framework for categorizing technology types will help identify which kinds of rates may be best suited for which kinds of technology.

The Draft Manual discusses many types of DER technologies. In the following diagram, we have organized the technologies identified in the Draft Manual

according to (1) dispatch capabilities, and (2) services available (energy-only or other ancillary services):



#### PROPOSED TECHNOLOGY FRAMEWORK:

We encourage the Subcommittee to consider incorporating this (or a similar) framework into the organization of the Manual with regard to the discussion of different DER technologies.

## 6. The Manual should identify guiding principles for consideration by commissions:

As we have noted, it is both beyond the scope and intent of the Manual to provide specific recommendations regard rate structures. Those decisions require detailed information and consideration of policy objectives that can only be developed within the context of specific proposals within specific jurisdictions. The Manual, in contrast, is intended to "offer a practical set of tools."<sup>10</sup>

<sup>&</sup>lt;sup>10</sup> Draft Manual, p. 4.

However, the Draft Manual does, in various places and to varying degrees, discuss ratemaking principles and objectives that are common to all member commissions of the NARUC community.

As stated earlier, we believe the Manual can and should identify a process template for commissions to follow, including

- (1) Identify market structure and policy objectives,
- (2) Engaging in a defined Distributed Resource Planning (DRP) process,
- (3) Develop preferred deployment scenarios, and,
- (4) Design appropriate policies through customary proceedings and stakeholder processes.

To accompany the template "process" recommendations, we encourage the Subcommittee to include an identified set of "Guiding Principles" that commissions could adopt or incorporate into their development rate mechanisms appropriate for their state.

We believe that the following principles are consistent with the overall scope, tone and objectives of the Subcommittee and the Draft Manual:

#### PROPOSED GUIDING PRINCIPLES:

- 1. *Grid Capabilities* Advanced capabilities and availability of modernized grid services should be encouraged to support overall reliability, system efficiency and public benefits.
- 2. *Policy Alignment* Rate and compensation mechanisms should align with and support policy objectives established by the state, commission or other relevant authorities.
- 3. *Equity* Rates should be established to enhance social equity objectives through fair, open ratemaking processes. Design of rates should align with objectives to maximize social value.
- 4. *Capital Attraction* Rate and compensation mechanisms should encourage and attract sources of capital (utility and non-utility) that can be leveraged to support grid modernization in financially and socially efficient manners.
- 5. *Clarity* Rates, compensation and market design should establish clear rules, processes and boundaries between regulated functions and market activities.

We encourage the Subcommittee to consider incorporating these (or similar) "guiding principles" into the Manual to support member commissions as they "grapple with the complicated issues of rate design for distributed generation."<sup>1</sup>

## 7. NARUC should continue to facilitate discussions and develop resources on this topic:

Finally, we encourage the Subcommittee and NARUC leadership to consider the publication of the upcoming Manual as the first stop on a longer journey, rather than the destination. We are confident that the Subcommittee and the authors have raised as many questions as they have provided answers. These important issues would benefit from consistent discussion, examination and can be the source of ongoing resources, consistent with the overall objective of supporting commissions and commissioners as they engage in discussions about complicated issues.<sup>12</sup>

We hope that NARUC leadership will continue to seek opportunities to organize discussions on these issues and develop supporting resources for commissioners.

# 6. <u>COMMENTS ON EDITORIAL TONE</u>

The Draft Manual and the overall charter of the Subcommittee on Rate Design comes during a period marked by anxiety, contention and heated debates. Commissions across the country are actively considering proposals addressing a wide range of issues that affect distributed energy resources, including compensation levels, rate structures, financial incentives, technology qualifications, changes to market design and utility business models. In this context, we stress the importance of establishing an objective, impartial editorial tone throughout the document.

<sup>&</sup>lt;sup>11</sup> Draft Manual, p. 4.

<sup>&</sup>lt;sup>12</sup> Besides, we note that the Sunday morning agenda at NARUC meetings has developed a vacuum in recent years that must certainly be missed by conference attendees (and their families).

We believe the Manual will be an enduring document and serve its primary objective of supporting regulators to the degree that it can avoid real or perceived prejudicial statements, unsubstantiated assertions or conclusory statements.

With the objective of achieving this editorial tone, we note several themes or statements that we believe should be reconsidered with an objective of avoiding preemptive conclusions and prioritizing substantiation:

#### 1. Traditional Infrastructure

The Manual asserts that "traditional ways of electricity delivery from large power plants" is being "challenged to due to the growth of DER."<sup>13</sup> There are *many* factors challenging these traditional methods, including macroeconomic trends, technological economies of scale, environmental and climate policies, transportation and infrastructure constraints and changes in financial markets. The implication that the growth of DER is the primary challenge facing traditional activities in the electric industry appears unsubstantiated and, at current deployment levels, questionable. We suggest, at a minimum, this statement and other similar ones be modified to make clear that the growth of DER is only one of many factors.

## 2. Cross-subsidization and Subsidies

The Manual discusses issues related to cross-subsidization and subsidies at many points.<sup>44</sup> However, the conclusions regarding their existence, scale and impacts of appears entirely unsubstantiated. Further, the implied conclusion that cross-subsidies are, by their very nature, creating problems that must be address seems to run counter to earlier observations in the Manual that (1) rates are not

<sup>&</sup>lt;sup>13</sup> See p.4: ""The traditional ways of electricity delivery from large power plants over transmission and distribution wires to the customer are increasingly being challenged due to the growth of DER."

<sup>&</sup>lt;sup>14</sup> See, for example, p.35: "The biggest cross subsidy in energy pricing in restructured jurisdiction is when a NEM customer has a net export from their system and is compensated at their retail rate. This is clearly a subsidy to the NEM customer paid for by the general body of ratepayers." And, regulators should, "Limit the effects of over production..." See also, p.44: "This means the costs of the system are higher even though the NEM customers are not charged for those additional

See also, p.44: "This means the costs of the system are higher even though the NEM customers are not charged for those additional costs. Second, by *overcompensating* the NEM participants through their avoidance of kWh charges, NEM necessarily is imposing those avoided costs on the nonparticipants. In this view the nonparticipants are subsidizing the NEM participants." (emphasis added)

intended to reflect individual customers<sup>15</sup>, (2) that regulators must consider these impacts within the context of broader social policy<sup>16</sup>, and (3) that all rates include inherent compromises<sup>17</sup>.

Cross-subsidies are ubiquitous throughout existing and proposed rates. We do not see an established policy or principle that suggests that regulators can or should prioritize the elimination of all cross-subsidies. (We highlight that *existing* flat rate structures, predominantly used nationwide, result in cross-subsidies from high-use, peaky customers to low-use, predictable customers.) The assessment of the scale of any cross-subsidy requires attention to detailed information that is the domain of specific commission proceedings. The subsequent judgment regarding benefit or harm is the role of the regulator. We suggest that statements regarding cross-subsidization be carefully reviewed to eliminate statements that make conclusions that we believe are best left within the purview of a regulator or regulatory body charged with balancing policy objectives within the context of a specific, established evidentiary record.

#### 3. Investment Risk

The Manual asserts that DER may increase the investment risk of utility holding companies.<sup>18</sup> This assertion is entirely unsubstantiated and well outside the scope of the Subcommittee. Financial analysts consider many factors when determining the risk (and corresponding required rate of return) of any potential debt or equity investment. As noted earlier, there are many factors affecting investment in the utility sector and infrastructure projects. While we acknowledge that it is plausible that analysts may make such conclusions, we are unaware of specific

<sup>17</sup> See p. 28: "The prevailing rates for any given utility represent a history of compromises.""

<sup>&</sup>lt;sup>15</sup> See p. 6: "As part of this discussion, it is recognized that most existing rate designs are not explicitly designed to reflect accurate costs to serve each customer."

<sup>&</sup>lt;sup>16</sup> See p.12: "Often, regulators will consider the requests of parties to the rate-setting process to advance certain goals that may create cross-subsidies. The regulator must carefully consider the public interest and the direction it receives from the legislative body with ultimate authority over it in creating specific cross-subsidies to support social policy goals of the state. Sometimes this may result in approval of non-cost-effective programs or rates that subsidize other customers, but a regulator may decide that such decisions serve a mandate or statute, or are otherwise in the public interest."

<sup>&</sup>lt;sup>18</sup> See p.23: ""Reducing the utility's opportunity to recover the amount of revenue needed to reach its authorized rate of return threatens its ability to recover its costs for operations of the system. This in turn may lead to arguments for regulated utilities that these utilities are 'riskier' than others and thus are deserving of a higher return on equity, which would increase rates to all customers of the utility."

analysis to suggest the growth of DER is a significant factor. We suggest, absent substantiation, that these statements be removed.

#### 4. Deployment Experience

The Draft Manual asserts that many benefits and grid services (such as storage, voltage regulation and microgrids) lack sufficient deployment experience to be considered DER.<sup>19</sup> We suggest that (1) the characterization makes premature conclusions about the results of existing deployments and (2) the current deployment should not be a factor in determining the definition of DER. We suggest that these statements be removed as unsubstantiated or revised.

## 5. Scope of Issues

The Manual implies that the predominant issues "in the current regulatory landscape" relate to costs, rates, physical challenges and ownership.<sup>30</sup> While we do not diminish the importance of these issues, we also highlight that many assert the great value and opportunity of DER as the preferred option for regulators to fulfill their mandate and provide social benefits. (Indeed, the notable Reforming the Energy Vision initiative in New York, as one example, is based on the conclusion that DERs represent the best way to achieve regulatory objectives of lower cost and higher reliability.) There are also instances where DER are presented as conflicting with regulatory goals, which we would assert is a limiting framing of the discussion.<sup>31</sup> Therefore, we encourage the authors to include balancing statements regarding the opportunity and benefits represented by DERs, which are also quite relevant "in the current regulatory landscape."

<sup>&</sup>lt;sup>19</sup> See p.20: "These types of services, while clearly valuable and potentially worthy of compensation, are not as universally accepted as DER primarily due to lack of use across the industry, lack of sufficient technology installed which can assist in measuring, and scheduling such resources with greater certainty and confidence."

<sup>&</sup>lt;sup>20</sup> See p. 22: "The issues presented by DER in the current regulatory landscape primarily involve the costs that DER impose on the grid, and recovering the cost of the grid from DER customers; properly incorporating and compensating the benefits DER provide; dealing with other physical challenges that the technologies imposes on the physical grid; and ownership issues."

<sup>&</sup>lt;sup>21</sup> See p. 41: "The growth of DER across the country and its impacts on the utility is increasing every day. Regulators are often tasked with two, potentially competing goals: ensuring the financial health and viability of the regulated electric utility and developing policies, rates, and compensation methodologies for DER."

#### 6. Compensation Structure

The Manual makes several assertions about "better" compensation mechanisms. As stated, we believe these judgments should be reserved for regulators within the context of specific applications, rulemakings or stakeholder initiatives.<sup>22</sup> We suggest that these statements should be carefully reviewed in order to avoid making unsubstantiated conclusions or expressing preferences for specific rate designs or mechanisms.

#### 7. Capital Attraction

There are multiple statements that address the declining *revenue* of the utility.<sup>23</sup> While we appreciate that there are established principles, noted in the Draft Manual, to provide some degree of stability and predictability in revenue, it is not an accepted principle that regulators should maintain an increasing revenue *requirement*. A guiding principle of regulation, which is not noted in the Draft Manual, is the common referred to "capital attraction," which suggests that regulators should ensure "fair revenue is available in order to continue to attract investors and borrow money" in order to, "Encourage people to invest in utility stocks and bonds at the same rate of return they would in comparable non-regulated industries."<sup>24</sup>

To the degree that new technology options result in a *lowered revenue requirement*, as some assert, this will necessarily result in *lowered revenue*. That is, utilities may face lower future revenues at the same time that investors are presented with fair, equitable and attractive *rates of return*.

<sup>&</sup>lt;sup>22</sup> See p. 35: ""For example, a demand charge based on KW is a much better proxy and a distribution rate based on kW rather than kWh may be a more economically efficient manner to eliminate cross subsidies in distribution rates. "See also, p.36: ""It is often suggested that instituting time-varying prices can help eliminate cross subsidies, but the basic problem is that utilities do not recover sufficient funds from DER customers to compensate them for the investments they have made on their behalf." In fact, note the entire sections entitled "Restructured Jurisdictions" and Vertically Integrated" found on pages 35-36 appear to make multiple unsubstantiated assertions and conclusions regarding preferred rate structures.

See also p. 43: ""Different rates for different TOU periods may reduce, but does not eliminate the conceptual issue that neither the amount of generation nor the amount of consumption is measured under NEM, only the net."

See also p. 53: "" If higher usage leads to increased investment, then it may be appropriate for the volumetric rate to reflect the costs that will be necessary to serve it, which would point towards the appropriateness of a lower fixed charge. In other words, it may be more reasonable to lower the fixed costs and increase the volumetric rate, which would send a more efficient price signal."

<sup>&</sup>lt;sup>23</sup> See p. 36: "Such a charge can be fixed, equivalent to a demand charge, or variable but should be designed to just compensate the utility and *keep it whole.*" (emphasis added).

<sup>&</sup>lt;sup>24</sup> See, for example, https://en.wikipedia.org/wiki/Utility\_ratemaking#Capital\_attraction.

We encourage the Subcommittee to carefully review discussions of lowered revenue to ensure that the Manual does not falsely equate lower *revenue* with lower *return* for investors. We further encourage the Subcommittee to include discussion of the distinction between "capital attraction" and revenue impacts.

# 7. <u>CONCLUSION</u>

Sunverge appreciates the work of the Subcommittee and NARUC leadership to lead on this important discussion and develop useful resources. We look forward to working collaboratively to support commissioners, staff and the broader NARUC community as they consider the best paths forward and to benefits from the tremendous opportunities available from distributed energy resources.

Please direct questions or clarifications to:

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