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September 2, 2016

**Re: Comments on NARUC Distributed Energy Resources Compensation Manual**

President Kavulla and Staff Subcommittee on Rate Design:

Duquesne Light Company (“Duquesne Light” or “Company”), a public utility as defined in Section 102 of Pennsylvania’s Public Utility Code, 66 Pa.C.S. §102, offers these comments in response to the solicitation following the subcommittee’s release of the July 21, 2016 draft of the NARUC Distributed Energy Resources (“DER”) Compensation Manual (“Draft Manual”).

Duquesne Light provides electric service to approximately 590,000 customers in the City of Pittsburgh and Allegheny and parts of Beaver Counties in Pennsylvania. Of that 590,000, approximately 89% are residential customers, and of that percentage, approximately 25% are low-income. Accordingly, changes to rates, particularly residential due to the influx of DER or other factors as well as their effects on low-income customers demand specific focus and consideration in the Company’s service territory.

The Company applauds both President Kavulla and NARUC for recognizing the importance of creating a forum for state commissions to openly address rate design challenges. Historically in Pennsylvania, energy sector utility rates that are composed of both fixed and variable components have largely been tied to volumetric throughput. As a result, when customers’ consumption of electricity decreases, for whatever reason, so do utility revenues.

The Staff Subcommittee on Rate Design aptly notes throughout the Draft Manual that there are numerous pressures distribution grids and corresponding revenues face when rates are heavily tied to volumetric throughput. In addition to a greater focus on Energy Efficiency and Conservation (which is statutorily mandated in Pennsylvania), advances in technology have allowed customers to use the electric distribution grid differently – whether it is greater penetration of solar panels (and corresponding net metering), the use of Combined Heat and Power (“CHP”), demand response (“DR”), or other forms of DER, the time when all an electric distribution company’s (“EDCs”) customers “plug-in” 24/7/365 is a thing of the past. Duquesne Light agrees with the Draft Manual’s conclusion that as more customers use the distribution grid in various ways, utilities, as well as Commissions, should consider different methodologies for recovering costs.

However, as explained at length in the Draft Manual, the implications of wholesale ratemaking changes are considerable. It is difficult, absent study and evaluation on a pilot basis of different options, to endorse one particular method as superior or the singular path forward.



Regardless, for low income and urban customers, depending on what alternative rate structure is effectuated, the possibility of cross subsidization is real.

To that end, Duquesne Light, when working with the Pennsylvania Public Utility Commission, will endeavor to ensure that any changes to ratemaking that center around the proliferation of DER fall under a framework of inclusionary energy policy, where benefits and costs are properly distributed. Considerations to achieve this goal include contemplation of a higher fixed monthly charge and demand charge aligned with each customer class (e.g., residential, small C&I, large C&I). Alternatively, serious consideration should be given for separate DER rate classes, depending on type and use, in order to effectively monetize the costs and benefits for different forms of DER.

No matter what mechanism is ultimately chosen, Duquesne Light agrees with stakeholders who believe that rates need to be just and reasonable, need to provide not only proper recovery but also proper return for the utility and need to consider the impact on customers (both those with and without DER). In addition to these attributes, the Company believes that proper rate design will continue to incent utilities to provide electric service in a safe, reliable manner and encourage investment in the distribution system, while at the same time minimizing cross-subsidization among and within customer classes.

While articulating the goals of proper rate design is an easy task, translating these goals into tangible rates is an arduous undertaking. This reality is demonstrated by the fact that the current Draft Manual, prior to additional input, is 66 pages long and arguably only scratches the surface of the complex and competing issues when attempting to equitably design rates.

When finalizing the Draft Manual between now and November, Duquesne Light requests the Staff Subcommittee on Rate Design consider the following points:

**1. There Needs to be More Robust Discussion of Integrated Planning/Communication between DER Owners and Utilities.**

A growing difficulty when attempting to determine how to properly address rates for DER, integrate these systems on an EDC's distribution network, and functionally understand their impact going forward, is the lack of information utilities currently have when DER installations are present. For purposes of the Draft Manual, DER is defined, in part, as follows:

A DER is a resource sited close to customers that can provide all or some of their immediate power needs and can also be used by the system to either reduce demand (such as energy efficiency) or increase supply to satisfy the energy or ancillary service needs of the distribution grid.

Draft Manual at 17 (emphasis added).



To date, it has been Duquesne Light's experience that without open customer communication from DER owner/operators, it is difficult for the Company to know, with certainty, the exact penetration of DER on its system. This is due to the fact that systems that are completely behind the meter, do not replace all native load, and do not backfeed on the distribution system are essentially invisible to the Company. While we attempt to contact customers and are seeking ways to better document where we suspect use of DER, unless the Company receives actual confirmation, we can only make guesses as to its actual use in the Duquesne Light service territory.

This lack of knowledge impacts other aspects of EDC operations. While customer owned DER, depending on its form, may arguably provide increased reliability for individual customers, its mere existence does not improve reliability of an electric distribution grid. Moreover, to the extent that a customer is not able to replace all its energy needs with a DER system, they would need other installations or connections, working in concert with the DER, in order to do anything meaningful long-term to be considered a reliability benefit by avoiding the need for electricity from the distribution system.

In addition, other issues related to DER and reliability include the fact that without actual and constructive knowledge of the amount of DER as well as the nameplate capacity of those installations, it is unclear to what extent, if at all, DER should be taken into account in EDC distribution system planning/hardening on a going forward basis. This is due, in part, to the fact that maintenance and operation of individual customer DER systems are outside the purview of an EDC. It is also due to the reality that distribution upgrades and planning take place years in advance of actual construction. With more DER projects proposed and never completed than those that come online as anticipated and no control over customer demand, utilities do not have the luxury or confidence of basing design and hardening decisions for its distribution system on the promise of customer proposed DER installations that may never come to fruition.

EDCs have numerous statutory and regulatory standards that cannot be delegated to individual customers. These standards, among others, include the statutory obligation of EDCs to provide adequate, efficient, safe and reasonable service within its certificated service territory. 66 Pa. C.S. §1501. Without control, inspection, or actual knowledge of individual customers' DER systems (especially when completely behind the meter), there is no guarantee that Duquesne Light could adhere to these obligatory statutory standards nor is the Company willing to delegate any of these responsibilities to individual customers simply because they have an ability to "provide all or some of their immediate power needs."

Consequently, more robust customer communication combined with a DER rate design that encourages customers to contact their utility should be recommended as a way to mitigate these issues going forward.

## **2. DER, Regardless of Form, Should be More Similarly Situated for Purposes of Rate Design and Access to the Distribution System.**

The Draft Manual recognizes that DER can take many forms. For purposes of the Manual, different DER examples include: “photovoltaic solar, wind, and combined heat and power (CHP), energy storage, demand response, electric vehicles, microgrids, and energy efficiency.” Draft Manual at 17. Because the definition of DER is anything but static and the rollout and popularity of these different forms of DER varies due to a host of different factors, Duquesne Light is concerned with mandates, both legislative and regulatory, that create an uneven playing field among the forms of DER.

To maintain equity among all customers, DER owners, regardless of form, should be required to pay their fair share for use of the distribution system – in both directions. It is inequitable for customers to fully avoid transmission and distribution charges (when they are still connected and benefit from the distribution system) simply because they have the ability to deliver excess generation whenever it is produced. Related to this issue is the need for fair rate treatment based on the value different forms of DER provide to the distribution system and the avoidance of excessive incentives when attempting to encourage customers to construct systems capable of providing power (or strategically reducing load) to the distribution grid.

The most illustrative example of this need in Pennsylvania is the current state of net metering under the Alternative Energy Portfolio Standards Act of 2004, (“AEPS Act”) 73 P.S. §1648. Under AEPS Act, while there are nameplate capacity restrictions, there are explicitly no consumption limitations for customer-generators. What is more troublesome, however, is an EDC’s statutory mandate to offer net metering at the “the full-retail value for all excess generation produced on an annual basis”. 73 P.S. §1648.2.

The intent of the AEPS Act when enacted twelve years ago was to encourage retail electric customers (customer-generators) to construct and use alternative energy systems. What has resulted over time, however, are numerous oversized systems that go well beyond offsetting a customer’s electricity requirements and instead become a source of income that is subsidized by other ratepayers. DER production up to a customer’s needs that avoids retail supply charges is fair, assuming appropriate rate design (as described above) is present. Excess generation, which is only possible for delivery because of use of the distribution system, should be reimbursed at market price and not at avoided T&D charges. Further, an equitable rate should be applied to the DER owner for the EDC to deliver that excess generation to the market on the delivery system.

The Pennsylvania Public Utility Commission has recently attempted to modify net metering regulations in an effort to more effectively balance the needs of alternative energy DER system owners and EDC ratepayers but has met harsh criticism suggesting the lack of statutory authority to legally effectuate some of these changes. As the “full retail value” mandate in Pennsylvania is currently contained in statute, it is imperative that, where statutory mandates

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exist, Commissions, utilities, and consumer advocates actively work with the Legislature to address these inequities now.

## Conclusion

Duquesne Light applauds NARUC and the Staff Subcommittee on Rate Design for starting the important conversation on appropriate compensation methodology as more DER comes online and integrates into EDC distribution networks. These conversations are vitally important as they focus parties' attention on how to equitably address changes and competing pressures on the electric system and different uses of the distribution grid.

We look forward to continued discussion and examination of these issues and remain more than willing to share our views on this important topic should the opportunity arise.

Respectfully submitted,

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