Technology Advisory

NRECA Releases Distributed Energy Resources Compensation and Cost Recovery Guide

What has changed?

The energy industry is evolving in interesting and challenging ways. Advances in technology, changes in consumer preferences, expanded use of data analytics, and political/regulatory pressures around issues, such as environmental stewardship, represent opportunities and challenges for electric cooperatives. One trend which has grown in importance to many utilities in recent years is the growth of Distributed Energy Resources (DER). DER are assets that are located throughout the distribution grid that may provide consumers and utilities an alternative to power generated by large, central station power plants.

NRECA has released a new publication titled "Distributed Energy Resources Compensation and Cost Recovery Guide." This Guide has been created by NRECA to serve as a compendium describing the objectives by which electric cooperatives might pursue DER programs in partnership with their members.

What is the impact on cooperatives?

The Guide explores the wide variety of ways that utilities compensate participating DER members for achieving mutual objectives and the equally varied means by which costs of DER programs can be recovered by cooperatives. The Guide is designed to be a reference document to help cooperatives assess whether member-facing DER in their service territory may be able to meet cooperative objectives. Further, the Guide discusses some of the more common compensation and cost recovery mechanisms used by utilities today. That discussion may help cooperatives evaluate their options for managing the economic relationship between themselves and their members with DER. Each cooperative must consider its specific goals and circumstances to identify the best mechanisms for that cooperative. The Guide also offers general information about alignment between G&T and distribution cooperative rate structures in assessing DER technologies and associated compensation or cost methods – that is, establishing prices that properly account for the components of the G&T's wholesale pricing to the distribution cooperative.

What do cooperatives need to know or do about it?

DER includes both supply-side resources that generate electricity and demand-side resources that reduce or shift demand for electricity, or increase demand through electrification of end uses. Many, though not all, DER are located behind the retail



electric meter. DER can, individually or in the aggregate, provide value to the grid, the customer, or both.

This Guide is focused on cooperative or member driven programs. These are resources in which the cooperative has significant involvement in the decision to develop the resource and often operates the resource. Member involvement is required for the program to be successful. They include cooperative-sponsored Demand Side Management (DSM) programs, DSM programs run by states or state designated entities, community solar programs, community storage programs, and electrification. The Guide also explores programs that are initiated by members. These are resources in which the consumer is the one actively requesting to install the DER using cooperative-established guidelines and policies. They include rooftop solar, small biomass generation, Combined Heat & Power (CHP) or other QF projects, small wind turbines, fuel cells, microturbines, battery storage, and DSM managed by a third-party aggregator.

The Guide defines six major objectives that DER can help a Cooperative to achieve:

- Capacity reduction/deferral Objective can be achieved by lowered demand, thus reducing or deferring the need for new or upgraded generation, transmission, and/or distribution capacity.
- **Energy** There can be various energy-based objectives, including value derived through energy reduction, Beneficial Electrification, or shifting energy consumption within the day.
- **Ancillary services** Objectives can be achieved through a program that provides operating reserves. This typically requires firm utility control of assets that can be dispatched on very short notice to respond to system needs.
- Reliability/Resiliency Reliability is the capability to avoid a power disruption
 and resiliency is the ability to rebound quickly from an outage. Increased
 reliability or enhanced resiliency of the generation, transmission, or distribution
 system can be achieved through operation of a distributed resource.
- Political/Regulatory DER can help cooperatives meet certain political and regulatory objectives, such as compliance with regulatory standards or the ability to take a proactive position in advance of impending or potential regulatory action.
- Relational Although hard to quantify, meeting relational objectives can be an important strategic component of a cooperative DER plan. Relational objectives include customer engagement and enhancement, or development of community relationships.



Various technologies that can help cooperatives and their members achieve mutual objectives are evaluated in the Guide. The Guide focuses on the following distributed resources:

- Demand Response (DR)
- Energy Efficiency (EE)
- Customer-Owned Behind-the-Meter (BTM) Generation
- Community Solar
- Storage Programs

The Guide was introduced at the NRECA Annual Meeting in Nashville on February 25–28. It is available for download at:

https://www.cooperative.com/der-quide

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