

# **Issue Brief**

# The Role of Electric Companies in Providing Distributed Energy Resources and Other Energy Services

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#### **EXECUTIVE SUMMARY**

This issue brief presents the fundamental reasons why electric companies should be able to offer energy services beyond electricity supply and energy grid services directly to customers and to participate in competitive markets for these services. These services include customized or bespoke energy products/services that meet customer demands for renewable energy, integrated energy management solutions, energy storage, microgrids, electric vehicle charging, private or community solar, energy efficiency, and other services. Because distributed energy resources (DERs) and other energy services can have benefits and costs for both the energy grid and the customer, it may be useful to identify at least two categories of energy services: (i) services primarily meeting customer needs and (ii) services primarily meeting energy grid needs.

This issue brief explains why it is critical for electric companies to be able to offer energy services beyond electricity supply and energy grid services to customers. Electric companies are well-positioned to grow the market for DERs and other energy services and expand customer access to these services. Electric companies also can extract the most value from these services, and their participation will result in more competition and lower costs for all customers.

To achieve the greatest benefits from DERs and other energy services – regulators, policymakers, electric companies, and other stakeholders must think differently about regulation and customers. A first step is to ensure that the pricing of retail electricity supply and energy grid services is transparent, cost-based, and distinct from the pricing of services that could be offered competitively. A second step is to put rules and regulations in place to ensure a level playing field among all participants – third-party providers and electric companies alike. A third step is to ensure that competitive energy services are paid for by those customers who benefit from them.

This issue brief includes real-world examples of DERs and other energy services being offered by electric companies today to illustrate how regulations and state policies are successfully navigating electric company participation, including electric vehicle charging infrastructure in California; private solar PV in Arizona; customer-sited and distribution grid energy storage in select locations; and energy efficiency programs nationwide.

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#### INTRODUCTION

The transformation of the electric power industry is unfolding state by state, as electric companies across the United States modernize and digitize their energy grids to enhance energy reliability, resiliency, and security; to integrate and manage growing numbers of renewable and distributed energy resources (DERs); and to provide customers with more options for using and managing their energy. Today, electric companies are expanding their offerings to customers beyond electricity supply and energy grid services. Their offerings include both DERs, such as energy efficiency, private solar PV, and battery energy storage, as well as other services. This issue brief addresses retail electricity services enabled by the distribution grid (and does not address wholesale markets or the transmission grid).

Electric distribution companies (electric companies) own, maintain, operate, and invest in the distribution grid to provide electricity service that is safe, reliable, secure, increasingly clean, and affordable to all customers. It is critical for electric companies to be able to offer energy services – beyond electricity supply and energy grid services – to customers directly. As demonstrated by the examples in this issue brief, allowing electric companies to offer energy services helps to advance the market, provides more options to customers, expands customer access, extracts more value from these services, and lowers costs. In short, electric company participation benefits all customers. In this issue brief, we distinguish between services that primarily provide customer-specific benefits versus those that provide benefits to customers and the energy grid. This distinction has cost-allocation and cost-recovery implications.

### **THREE DISTINCT TYPES OF ENERGY SERVICES**

Today, regulated electric companies in the United States provide distribution grid services (essentially the reliable delivery of electricity via distribution power lines and infrastructure to end-use customers), electricity supply services (the energy itself), and – in some cases – DERs and other energy services. It is important to define and differentiate these services.

### **Distribution Grid Services**

The distribution grid is the infrastructure that delivers reliable electricity to customers when and where they need it. Distribution grid services are regulated by state public utility commissions

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(PUCs) and are non-competitive. All customers who use the distribution grid (including nearly all DER customers) should pay for distribution grid services.

#### **Electricity Supply Services**

Electricity supply service is the electricity that Americans rely on to power their everyday lives. In about two-thirds of the states, electricity service to residential and small commercial customers is a non-competitive service. In other states (mostly in the Northeast, Mid-Atlantic and upper Midwest), customers have the option to choose their retail electricity provider (called "retail choice"). Retailers typically compete by providing some type of customization (such as "green" electrons, indexed pricing, or flat bills) layered on top of the electricity supply service. In one state, Texas [except for customers who are served by a municipal utility or an electric cooperative or are outside of the Electric Reliability Council of Texas (ERCOT) region], only third-party retail electricity providers (REPs) can provide electricity supply service directly to mass-market customers; the regulated electric company is precluded from doing so.

#### **Distributed Energy Resources and Other Energy Services**

DERs and other energy services may include customized or bespoke energy products/services that meet customer demands for renewable energy, energy management solutions, energy storage, microgrids, electric vehicle charging, private or community solar, energy efficiency, or other services. Whether these energy services benefit the energy grid or a meet a specific customer's energy need, they are distinct from both electricity supply and energy grid services. Some of these services are provided by electric companies today (e.g., storage and energy efficiency) via mandates in state laws or from public utility commissions.

DERs and other energy services can have benefits and costs for both the energy grid and the customer. Therefore, it may be useful to identify at least two categories of energy services: (i) services primarily meeting customer needs and (ii) services primarily providing benefits to the energy grid. For example:

 DERs and other electricity services can meet a particular customer's expectation or need such as lowering energy bills, optimizing energy use, being a "prosumer" that produces and consumes energy, or choosing a specific energy mix. • Likewise, electric company-owned, customer-sited assets may provide benefits to all customers or to the energy grid by acting as resources that provide energy, capacity, and/or other services.

The services that a particular DER or energy service provides has implications for who should pay, either the individual customer or all customers.

### ELECTRIC COMPANIES SHOULD BE ABLE TO PROVIDE DISTRIBUTED ENERGY RESOURCES AND OTHER ENERGY SERVICES

Electric companies have the ability, willingness, and historical mandate to serve all customers, regardless of income, geographic location, or type of customer. This sets electric companies apart from third-party providers that have no obligation to serve. In fact, when electric companies offer energy services, they are offered to a far larger group of customers (including low-income customers). Limiting electric company participation will limit competition and slow the development of the emerging energy services market.

Following are four primary reasons why electric companies should have the option to participate in the DERs and energy services markets. Ultimately, electric company participation benefits customers.

# **Reason #1. Electric Companies Are Well-Positioned to Grow the Market for DERs and Energy Services**

Electric companies are well-positioned to spur market growth and to drive customer participation in, and demand for, DERs and energy services because they have a brand that customers recognize and typically trust. Hence, electric companies are important both for establishing new markets and for growing markets. In fact, third-party providers often turn to electric companies for help in reaching customers and providing services. This is especially true in large parts of the country where third-party providers are relatively absent at present.

# **Reason #2. Electric Companies Will Expand Customer Access to DERs and Energy Services**

Electric companies across the country should have the option to offer customers access to DERs and energy services such as renewable energy, energy storage, private solar, and more. Because

electric companies are mandated to serve all customers, their legal and social responsibility often makes them the trusted energy advisors to their customers.

In addition, electric companies are uniquely suited to provide energy services, especially to those customers whom third-party providers might ignore, such as those who are in good standing with their electric companies but may have low credit scores. Segments of the population that are not prime targets for many service providers today, such as low- to moderate-income households, represent a significant portion of U.S. households.<sup>1</sup>

However, electric companies should not be limited to offering DERs and energy services to specific populations. If the goal is to create a market where multiple DERs and energy services are available to as many customers as possible, expanding the pool of market participants is in the best interest of all customers.

### **Reason #3. Electric Companies Can Build Visibility into the Energy Grid and Extract the Most Value from Energy Services**

Allowing electric companies to offer DERs and energy services to all customers (often in partnership with other companies) facilitates optimization of these resources, often through more strategic resource location and integration. Working with customers to target resources for specific locations on the energy grid, electric companies can gain visibility into the operation of customer-sited DERs, thus providing benefits for both customers and the energy grid.<sup>2</sup> Electric companies are the distribution grid owners, operators, and the ultimate reliability backstop. When they are involved in how DERs and other energy services are offered and deployed (at least to some degree), this helps to create a more efficient electric system.

http://neuac.org/wp-content/uploads/2017/03/FINAL-FY18-LAD-State-Sheets-52.pdf

<sup>1</sup> In the United States, 35 million households (roughly 30 percent of all U.S. households) are eligible for the federal Low Income Home Energy Assistance Program (LIHEAP), a widely used metric to determine whether a customer qualifies as low-income. See the National Energy and Utility Affordability Coalition's LIHEAP funding summary, available here:

<sup>2</sup> In both California and New York, distributed energy resources increasingly are being deployed as an alternative way to meet growing demand in particular areas.

### **Reason #4. Electric Company Participation Yields More Competition and Lowers Costs to Customers**

Customers generally benefit from open and transparent competition, provided that proper rules and regulations are in place. Competitive pressure from multiple market participants can put downward pressure on costs, broaden customer access to the market, and spur innovation in developing new products and services. To date, electric company participation in the market for solar PV and battery storage has helped to drive down the costs of these technologies. Today, electric companies either own or contract for most of the solar energy in the United States, which has resulted in a tremendous decrease in cost; a trajectory that continues today. As a result, electric company participation in these markets makes economic sense and has obvious customer benefits.

### **THINKING DIFFERENTLY ABOUT REGULATION**

Allowing a competitive energy services market to flourish requires thinking differently about regulation. The current cost-of-service regulatory model is out of step with the rapid pace of technological innovation and customer expectation. One job of the regulator is to ensure the best economic outcome for all customers. Electric companies must have the flexibility to invest in new technology to provide the services that today's customers want and to offer energy services in competition with, and in partnership with, third-party providers. The regulatory model for energy services must be flexible and nimble. This is largely an issue of ensuring that the three types of energy services—distribution grid services, electricity supply services, and other energy services—are priced transparently and accurately.

To develop a competitive energy services market, a **first step** is to ensure that the pricing of retail electricity supply and energy grid services is transparent, cost-based, and distinct from the pricing of competitive energy services.<sup>3</sup> Most retail tariffs in the United States today do not separately price the three distinct energy services. Hence, today's customers do not really understand that they are receiving multiple services bundled together. In many states, a large

<sup>3</sup> Most fixed costs today for the energy grid are recovered through retail electricity charges or other volumetric charges. This is an inefficient and non-transparent way to recovery fixed energy grid-related costs. See Wood and Hemphill et al. (2016), report #5 in the Future Electric Utility Regulation series: feur.lbl.gov.

percentage of the cost of the energy grid is captured volumetrically through the retail price charged for the delivered commodity electricity or, in deregulated states, also via a volumetric distribution grid charge. These volumetric charges do not necessarily recognize the fixed costs associated with the energy grid. Some energy markets already have begun to address this issue with structural reforms.<sup>4</sup>

A **second step** is to ensure a level playing field among all participants. Rules and regulations can be put in place to facilitate third-party engagement and to foster fair competition, so that all customers can benefit. A level playing field is essential for the development of a successful market, and all players must be held to the same standards, whether consumer protections, interconnection codes and standards, or accounting principles. While rules and regulations can prevent bad behavior from market participants, they must not be unfairly onerous to the electric company or to the third-party provider. For example, in some states, affiliate rules are overly strict and actually mitigate potential benefits to customers.

A **third step** is to ensure that new, competitive energy services are paid for by those customers who benefit from them. Such services should not be paid for on a bundled basis with non-competitive services. However, for services like energy efficiency that pass a benefit-cost test demonstrating that all customers benefit, it is appropriate for all customers to share the costs. Again, it is important for rules and regulations to be in place to avoid a cost shift or subsidy from one customer to another when only one customer benefits from a particular energy product or service; in this instance, the case is simple – the customer that benefits pays the price to purchase the energy service.

Some DERs or other energy services require energy grid investments. When the electric company is required to invest in the energy grid to integrate DERs or other energy services (regardless of the provider) or when the electric company is mandated to provide a service, then some (or all) of these costs appropriately are shared among all customers. As a result, in some instances, it is appropriate for electric companies to rate-base or to socialize the costs of some of

<sup>4</sup> The Ontario Energy Board introduced a delivery charge to cover the cost of delivering electricity and is implementing it over a five-year period. This includes a customer service charge, a distribution charge, a transmission charge, and a line loss adjustment. By 2019, the distribution charge will be a fully fixed charge for most customers to cover the (largely fixed) cost of distribution grid services. https://www.oeb.ca/rates-and-your-bill/electricity-rates/understanding-your-electricity-bill.

the investments required to provide DERs and energy services to customers (e.g., energy grid upgrades to accommodate high solar PV penetration or "make ready" infrastructure to ensure that the energy grid can accommodate a sufficient number of electric vehicles in states with air quality goals). *It is important to start to categorize DERs and energy services; there is no one-size-fits-all approach that leads to a simple regulatory solution.* 

### **EXAMPLES OF ELECTRIC COMPANY-PROVIDED DERS AND OTHER ENERGY** SERVICES

# Example #1. Electric vehicle charging infrastructure in California demonstrates how electric companies are well-positioned to grow the market for DERs and energy services.

California's journey to redefining the role of electric companies in providing plug-in electric vehicle (EV) charging infrastructure demonstrates the important role that electric companies play in providing access to energy services to a broad customer base.

In 2014, the California Public Utilities Commission (CPUC) overturned its 2011 near blanket prohibition on electric company-owned PEV charging infrastructure and endorsed an expanded role for electric companies in developing and supporting EV charging infrastructure generally. The CPUC recognized that electric companies (or electric companies supporting third-party providers) have a unique role to play in providing and expanding the availability of EV infrastructure, especially to underserved markets such as low-income communities or multi-unit dwellings.<sup>5</sup>

Today, California's three investor-owned electric utility companies (IOUs)—Pacific Gas & Electric (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison (SCE)— are implementing pilot programs to install infrastructure to support EV charging at multi-unit dwellings, workplaces, and public interest destinations.<sup>6</sup>

<sup>5</sup> CPUC Decision 14-12-079, at 7. According to the CPUC: "utilities have a crucial role in the electrification of transportation as the infrastructure support and fuel supplier in their service territories.... [C]ertain market segments are harder for third parties to penetrate, and the utilities may be better positioned to develop those market segments or support third party providers to do so. As [Southern California] Edison noted, even limited utility involvement to accelerate the PEV infrastructure market can improve the business case for third parties."

<sup>6</sup> The three electric company pilots will install the infrastructure to support up to 12,500 charging stations with total budgets of up to \$197 million.

- PG&E will install "make ready" infrastructure, including EV service connection upgrades and new EV supply infrastructure for up to 7,500 Level 2 charge ports at multiunit dwellings and workplaces. Multi-unit dwellings and installations in disadvantaged communities can choose to own the charging equipment or to let PG&E own it (up to 35 percent of the chargers).
- SDG&E will install and own up to 3,500 Level 1 and Level 2 charge ports at multi-unit dwellings and workplaces, with a special rate that encourages off-peak charging.<sup>7</sup>
- SCE will install "make ready" infrastructure including new EV supply infrastructure for up to 1,500 Level 1 and Level 2 charge ports at workplaces, multi-unit dwellings, and other locations where vehicles are parked for extended periods of time.

To approve each project, the CPUC used a balancing test, which balances customer interest in just and reasonable rates and the effect on competition against the cost and size of the project and the immediate and long-term benefits of electric company ownership. As demonstrated by the projects in California, electric companies uniquely are positioned to spur market growth and development of EV charging infrastructure, but were initially constrained by regulatory processes. Approaches that streamline the approval process are needed to allow electric companies to deploy these types of energy services sooner rather than later, especially in nascent markets. It is essential for all stakeholders to work together to find ways to allow the PEV charging infrastructure market to develop efficiently and rapidly.

## Example #2. Private solar PV in Arizona demonstrates how electric companies can expand customer access to new energy services.

Recent regulatory decisions in Arizona allowing the state's IOUs to provide private solar PV to customers offer a boots-on-the-ground perspective on the critical role of electric companies in providing distributed solar to customers.

In 2014, the Arizona Corporation Commission (ACC) approved Arizona Public Service's (APS') two-stage project to offer private solar PV to residential customers, with a first stage of 8

<sup>7</sup> As stated by the CPUC in addressing this issue, "[w]e recognize the need for utility involvement in spurring the development of an EV charging infrastructure, but at the same time we must be cognizant of the competitive impacts that SDG&E's concentrated ownership could have on third parties, especially during the early years of deploying EV charging infrastructure." CPUC Decision 14-12-079, at 107. In this case, a smaller-scale pilot project addressed these concerns.

megawatts (MW), followed by a second stage of 2 MW.<sup>8</sup> In its approval of the pilot, the ACC stated that, in addition to providing access to this resource to underserved customers, "there appears to be an opportunity for sensible and cost-effective utility involvement in distributed solar in order to ensure grid reliability and resiliency as energy generation and delivery continue to evolve."<sup>9</sup>

The ACC also approved Tucson Electric Power's (TEP's) 3.5 MW Residential Solar Program, serving approximately 500 to 600 customers.<sup>10</sup> Under this program, TEP installs an optimally sized private solar PV system which TEP operates and maintains over its estimated 25-year life. In exchange, customers receive a fixed monthly bill based on their current electricity usage, and they can opt out of the program for a minimal fee. TEP is targeting customers with rooftops where solar provides energy grid benefits. Importantly, any TEP customer in good standing is eligible for this program. This broad customer eligibility is in stark contrast to the high credit-score customer group typically targeted by private solar companies operating in Arizona.

The electric company-provided solar represents only a fraction of the private solar market in Arizona. The ACC's approval of these programs indicates the vital role that electric companies can play in providing private solar to all types of customers going forward. And, because the service is open to any APS or TEP customer in good standing and is targeted to rooftops with specific characteristics, the service benefits both customers and the energy grid.

### Example #3. Customer-sited battery energy storage demonstrates how electric companies can build visibility into the energy grid and extract the most value from energy services.

Energy storage can provide grid-edge visibility, facilitate better integration and management of variable energy resources, and provide resiliency benefits. Additionally, energy storage can help customers manage their energy use better. Recent PUC decisions and legislative mandates in

<sup>8</sup> Arizona Corporation Commission (Dec. 28, 2014). In the Matter of Arizona Public Service Company for Approval of Its 2015 Renewable Energy Standard Implementation Plan for Reset of Renewable Energy Adjuster. Docket No. E-01345A-13-0140. Decision 74878. According to the decision, the additional 2 MW could be deployed only if coupled with distributed storage in order to achieve operational benefits. 9 *Id.* at 5-6.

<sup>10</sup> Arizona Corporation Commission. (Dec. 31, 2014). In the Matter of the Application of Tucson Electric Power Company for Approval of Its 2015 Renewable Energy Standard Implementation Plan. Docket No. E-01933A-14-0248, Decision No. 74884.

California, Oregon, and Massachusetts are helpful in understanding the role of electric companies in enabling a range of energy storage-related benefits for both the grid and customers.

- California. AB 2514 (passed in 2013), required the state's three IOUs to procure 1,325 MW of energy storage. More recently, in 2017, the CPUC required the state's IOUs to procure an additional 500 MW of behind-the-meter energy storage. While the IOUs do not own these resources, they do own the contracts and work closely with third-party providers to ensure that the storage system provides the capacity the grid needs and that customers are receiving the benefits they expect.
- Massachusetts. In the fall of 2016, the Massachusetts Department of Energy Resources (DOER) released *State of Charge: Massachusetts Energy Storage Initiative*, which recognized the many significant grid modernization benefits electric company ownership of energy storage yields.<sup>11</sup> In August 2016, Massachusetts Bill H.4568, which explicitly allows electric distribution companies to own energy storage, became law.<sup>12</sup> In July 2017, the Massachusetts Department of Public Utilities set a 200 megawatt-hour (MWh) energy storage procurement target that the state's IOUs must reach by 2020.<sup>13</sup> As in California, the state is aggressively pursuing carbon reduction and distributed generation goals, which will not be attainable without electric company participation in the energy storage market.
- Oregon. Portland General Electric and PacifiCorp have a legislatively mandated 5 MWh energy storage procurement target. The electric companies have the option to own or to contract for the storage resources. The Oregon Public Utility Commission (OPUC) gave the electric companies the option to deploy this technology in the most cost-effective and efficient manner neither prescribing nor prohibiting ownership of customer-sited resources. The companies are required to submit proposals for OPUC approval that detail the benefits, costs, and learning objectives of proposed storage project(s), including justification for the ownership model proposed.<sup>14</sup>

Each of these examples demonstrates a state regulatory decision recognizing that electric company engagement in facilitating or directly offering energy storage solutions is important to

<sup>11</sup> The Massachusetts DOER identified possible policies and programs to help realize energy storage system benefits and to increase the amount of storage deployed in the state, including grant and rebate programs, storage in state portfolio standards, establishing/clarifying regulatory treatment of electric company storage, statutory changes to enable storage as part of clean energy procurements, ISO New England market rule changes and others.

<sup>12</sup> https://malegislature.gov/Bills/189/House/H4568.

<sup>13</sup> http://www.mass.gov/eea/pr-2017/doer-sets-200-megawatt-hour-energy-storage-target.html.

<sup>14</sup> HB 2193, https://olis.leg.state.or.us/liz/2015R1/Downloads/MeasureDocument/HB2193.

the development of the market and can leverage the multiple values of energy storage for the benefit of both the customer and the energy grid.<sup>15</sup> Regulatory flexibility is critical.

### Example #4. Energy efficiency programs demonstrate how electric company participation yields more competition and lowers costs to all customers.

Energy efficiency (EE) programs are a good example of a cost-effective energy service that that electric companies provide directly to customers and in collaboration with technology companies and third-party providers today. EE programs – funded by electric company customers – undergo careful regulatory review, and program funding is authorized only for programs where the benefits outweigh the costs.<sup>16</sup>

EE programs save customers money, reduce carbon, and yield overall system benefits. In 2016, EE programs saved 183 terawatt-hours (TWh) of electricity and avoided 136 million metric tons of carbon dioxide.<sup>17</sup> These programs also are incredibly cost-effective; the latest estimates show that EE programs deliver energy savings at a price of about two cents per kilowatt-hour saved (over the life of a program). Regulatory frameworks, such as decoupling, lost revenue recovery, and performance incentives, have been put in place in many states to support EE programs and are a critical element to their success. EE programs are a good example of how electric companies lowered costs and saved customers money by deploying a cost-effective resource. But again, the importance of a supportive regulatory framework cannot be overstated as a critical element in EE's success.

### CONCLUSION

Electric companies uniquely are suited to provide energy services to customers because they have experience in growing markets; in engaging a wide variety of customers; in using their expertise as energy grid operators to deploy resources where they are most valuable; and in

16 Many electric company-sponsored energy efficiency programs today are funded through surcharges paid by all customers, including those who do not participate in these programs but still benefit from them. Many energy efficiency programs are mandated legislatively and are regulated by the state. *See* Energy Efficiency Trends in the Electric Power Sector, Institute for Electric Innovation, December 2017. http://www.edisonfoundation.net/iei/publications/Documents/IEI\_Energy%20Efficiency%20Report\_Dec20 17.pdf

<sup>15</sup> See Harnessing the Potential of Energy Storage, Edison Electric Institute, May 2017. http://www.eei.org/issuesandpolicy/generation/Documents/EEI HarnessingStorage Final.pdf

<sup>17</sup> Id.

keeping costs low. Their participation benefits both customers and the energy grid, and it is critical to recognize the important role that electric companies play.

In defining the rules and regulations governing the participation of both electric companies and third-party providers, the starting point is simple – the customer.

- Market rules should focus on providing customers with access to services, ensuring a minimum level of performance, establishing or reinforcing existing consumer protections, and promoting competition and innovation.
- Rules and regulations need to be flexible, transparent, and not overly constraining.
- It is also important to start to categorize energy services there is no one-size-fits-all regulatory solution.

This will help to ensure that customers reap the benefits of competitively provided emerging energy services.

Electric companies, third-party providers, and electric companies in partnership with other companies all have important roles to play in developing and deploying these services. Today's challenge is to ensure that the correct rules and regulations are in place to provide the greatest value for customers and to create a level playing field for all market participants.

As demonstrated throughout this issue brief, electric companies already are offering innovative energy services to better serve their customers – both alone and in partnership with other companies. And, as also discussed in this issue brief, electric company participation is making a difference!

### **About the Institute for Electric Innovation**

The Institute for Electric Innovation focuses on advancing the adoption and application of new technologies that will strengthen and transform the energy grid. IEI's members are the investor-owned electric companies that represent about 70 percent of the U.S. electric power industry. The membership is committed to an affordable, reliable, secure, and clean energy future.

IEI promotes the sharing of information, ideas, and experiences among regulators, policy makers, technology companies, thought leaders, and the electric power industry. IEI also identifies policies that support the business case for the adoption of cost-effective technologies.

IEI is governed by a Management Committee of electric industry Chief Executive Officers. In addition, IEI has a Strategy Committee made up of senior electric industry executives and a select group of technology companies on its Technology Partner Roundtable.

### **About the Edison Foundation**

The Edison Foundation is a 501(c)(3) charitable organization dedicated to bringing the benefits of electricity to families, businesses, and industries worldwide. Furthering Thomas Alva Edison's spirit of invention, the Foundation works to encourage a greater understanding of the production, delivery, and use of electric power to foster economic progress; to ensure a safe and clean environment; and to improve the quality of life for all people. The Edison Foundation provides knowledge, insight, and leadership to achieve its goals through research, conferences, grants, and other outreach activities.



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