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#### **PROJECT NO. 48023**

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RULEMAKING TO ADDRESS THE USE OF NON-TRADITIONAL TECHNOLOGIES IN ELECTRIC DELIVERY SERVICE PUBLIC UTILITY COMMISSION OF THE TEXAS

### REPLY COMMENTS OF ADVANCED ENERGY MANAGEMENT ALLIANCE

The Texas Chapter of the Advanced Energy Management Alliance ("AEMA")<sup>1</sup> submits these comments to respond to the comments filed by others addressing the questions published by the Public Utility Commission of Texas ("Commission") in this project. AEMA is a trade association under Section 501(c)(6) of the Federal tax code whose members include national demand response ("DR") and advanced energy management service and technology providers, as well as some of the nation's largest demand response resources, who support advanced energy management solutions due to the electricity cost savings those solutions provide to their businesses. This filing represents the opinions of AEMA rather than those of individual association members.

#### **SUMMARY**

A broad spectrum of commenters identified DR, energy efficiency, distributed generation ("DG"), storage and other technologies as cost-effective alternatives to the traditional technologies and strategies used to ensure reliable operations of the transmission and distribution grid.<sup>2</sup> While some expressed concerns regarding aspects of contracts between transmission and distribution utilities ("TDUs") and third parties for reliability services,<sup>3</sup> the vast majority

For additional information about AEMA, please refer to website: http://aem-alliance.org.

<sup>&</sup>lt;sup>2</sup> E.g. Comments of AEMA, at 3; Texas Advanced Energy Business Alliance, at 9-11; Solar Energy Industries Association and Texas Solar Power Association, at 2; Environmental Defense Fund of Texas, at 1; Office of Public Utility Counsel, at 2-5; NRG, at 2; Southwest Partnership for Energy Efficiency as a Resource ("SPEER"), at 2; Lone Star Chapter of the Sierra Club, at 2; Tesla Inc., at 1; CPS Energy, at 2-3; and Public Citizen, at 2.

<sup>&</sup>lt;sup>3</sup> E.g. Comments of AEP Texas and Electric Transmission Texas, at 10; Oncor Electric Delivery Company LLC, at 10.

expressed support for the use of third parties to provide these competitive energy services to TDUs and some, like the Texas Advanced Energy Business Alliance ("TAEBA"), supported an analytical process that would require the consideration of non-traditional resources in addressing reliability issues, either through the competitive market or competitive contracts with third parties, rather than allowing a TDU to own and operate non-traditional technologies, especially when the resources that might be deployed are competitive energy services.<sup>4</sup>

Some commenters, however, expressed reservation about or sought to narrow the scope of the future use of these non-traditional technologies and strategies to address needed improvements in transmission and distribution service. In AEMA's view, the key question is whether TDUs should pursue lower-cost alternatives than all-wires solutions to address transmission and distribution needs. We believe that the obvious answer is yes. If a TDU's customers are facing the prospect of inadequate service, the TDU should address the issue, and it should do so by the most economical means, including seeking to engage with customers and third-party service providers that can meet the need at a lower cost with DR, energy efficiency, DG, storage, or other technologies or strategies.

### NON-WIRES ALTERNATIVES CAN BE COST EFFECTIVE

Some of the TDUs suggested that they did not see alternatives that they should consider in meeting transmission and distribution needs, and some also suggested they could not be required to contract with third parties to provide reliability services.<sup>5</sup> It is clear, however, that there are times when these alternative approaches could be cost-effective. For example, the storage options that AEP West proposed in the docket that gave rise to this rulemaking

<sup>&</sup>lt;sup>4</sup> E.g. Comments of AEMA, at 2, 8; TAEBA, at 3-10; Public Citizen, at 2; Office of Public Utility Counsel, at 11; Environmental Defense Fund of Texas, at 5.

<sup>5</sup> Comments of AEP and ETT, at 1-2, 10; CenterPoint Energy Houston Electric, at 12.

proceeding was clearly a very cost-effective option.<sup>6</sup> The TDUs have used DR (referred to as load management) as a major element of their energy efficiency programs, and it has been a cost-effective resource. In seeking the consideration of non-traditional technologies to address specific transmission and distribution issues, AEMA intends to make available a resource that could be a more cost-effective means of providing reliable service to customers.

# THE USE OF CONTRACTS FOR RELIABILITY SERVICES HAS A HISTORY OF SUCCESS

The fact that the use of non-traditional technologies would involve relying on customers' decisions to utilize new technologies or on contracts between a TDU and a third party is not a valid objection to the use of these technologies. In several contexts, such arrangements have been used routinely to avoid the need for traditional electric system resources. The energy efficiency program, for example, is based on working through third-party providers to induce customers to make energy efficiency improvements in their homes and businesses to avoid the need for additional generation resources. In addition, ERCOT operates an Emergency Response Service ("ERS") under Commission rules that is intended to provide DR and DG resources that are used to avoid interruptions of service to customers who have not agreed to have their service curtailed. This service is provided in a manner similar to the energy efficiency program, through the combined efforts of customers and third-party providers. The same is true of the DR and DG resources that are active in the ERCOT market for Responsive Reserve Service ("RRS"). The Commission has recently formalized an ERCOT mechanism in which generating units and DR

<sup>6</sup> Comments of AEP Texas and Electric Transmission Texas, at 8.

resources may submit offers to fill a system reliability need, adopting rule that allow these resources to be considered as an alternative to a Reliability-Must-Run contract.<sup>7</sup>

Despite this history of successful use of the contractual mechanism, ERCOT notes in its comments that an entity that contracts with a TDU would not necessarily be an ERCOT-registered market participant, perhaps suggesting that this arrangement does not provide adequate assurance that the contractor will meet its operational obligations. If the Commission endorses a process in which a TDU may contract with a third party for essential reliability services, the TDU will have the ability to structure contracts for the services so as to provide adequate assurance that the contractors will perform as required. The arrangement would be quite similar to ERS and RRS, where the customer is typically not a market participant, but operates with a Qualified Scheduling Entity as an intermediary, and the customer is subject to a variety of penalties for failure to perform adequately.

In the past, DR and DG resources have been employed to address system-wide reliability or resource adequacy issues, while the new approach that AEMA and others propose in this proceeding would use these resources to address more local reliability issues. The difference is inconsequential, however. Demand response has proven itself as a reliable cost-effective resource, and contracting through third-party providers has proven itself as a sound mechanism for engaging customers to provide such resources. Non-traditional technologies and strategies can be equally effective in addressing local reliability needs.

Order Adopting Amendments to § 25.502 as Approved at the September 27, 2017 Open Meeting, Project No. 46369 (Sep. 29, 2017).

<sup>&</sup>lt;sup>8</sup> ERCOT Comments, at 3.

## NON-WIRES ALTERNATIVES ARE CONSISTENT WITH THE WHOLESALE MARKET DESIGN

Several commenters representing generator or retailer interests suggested that payments under contracts with third parties for non-traditional technologies would constitute capacity payments and should not be allowed or otherwise argued that the use of non-traditional technologies would be inconsistent with the energy-only design of the wholesale market. Thus, they urge that procedural or other mechanisms be used that would limit the use of non-wires alternatives. These arguments ignore the fact that there are a number of existing reliability services that are based on a payment in advance for the availability of a resource to meet a system reliability or adequacy need, rather than through a payment for the energy supplied at the time of the need. Ancillary services are contracted, in large part, on the basis of an availability or capacity payment. The same is true for ERS and for DR provided through the energy efficiency program. A customer that provides DR in one of these situations typically must make an investment in control and communications capabilities in order to provide the service, but the customer's expectation (and the actual experience) is that calls for interruptions are infrequent. Thus, a payment in advance is a necessary inducement for the customer to offer the service.

Another consideration with respect to impact on the wholesale market is the likelihood that the use of non-traditional technologies for local reliability service will be a small resource. The proliferation of generating resources with low marginal costs presents a much bigger challenge to the energy-only market. According to ERCOT's State of the Grid Report for 2017, wind and solar resources exceeded 21 giga-watts in a system with a peak demand of about 70

<sup>&</sup>lt;sup>9</sup> E.g. Comments of the Alliance for Retail Markets, at 8; Vistra Energy Corp., at 13, 16-17; Calpine Corp., at 9-10.

giga-watts, and wind energy constituted 17% of the system energy.<sup>10</sup> The use of non-traditional technologies is unlikely to be a fraction of these numbers any time in the near future. It is also unclear whether the use of non-traditional technologies would reduce demand. In its comments, Oncor makes a plausible argument that by keeping parts of the distribution system connected to the transmission system during times when local distribution facilities would be overloaded, non-traditional technologies actually keep system demand up, rather than having a portion of the system trip off.<sup>11</sup> Moreover, it is not clear that local peaks in demand would coincide with system peaks, so that even if the deployment of a non-traditional technology reduced demand locally, it might have minimal impact on prices in the ERCOT energy market.

Finally, if there is a realistic prospect that the use of non-traditional technologies would reduce demand at times when peaks in system demand were driving energy prices up significantly, mechanisms could be implemented to reflect the lost demand in the calculation of energy prices. <sup>12</sup> ERCOT stakeholders have developed such a mechanism for ERS deployments, and a similar approach would probably be feasible for local use of non-traditional technologies to maintain reliability. The Commission should reject extreme positions with respect to this issue and recognize that the goal here is to be more cost-effective by taking advantage of advances in technology.

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State of the Grid Report, at 7-8, http://www.ercot.com/news/presentations.

<sup>11</sup> Comments of Oncor Electric Delivery Company, at 9.

<sup>&</sup>lt;sup>12</sup> Calpine Corp. proposes such a mechanism in its comments, at 10.

# NON-TRADITIONAL TECHNOLOGIES WILL PROLIFERATE, REGARDLESS OF COMMISSION ACTION IN THIS PROCEEDING

ERCOT noted in its comments that it would not necessarily include non-traditional technologies solutions in its planning and operational reliability assessments.<sup>13</sup> This is an issue that ERCOT and the Commission have dealt with before. The DR resources in the TDUs' energy efficiency programs were not initially recognized as resources that ERCOT could rely on in system emergencies, but ERCOT and the TDUs later coordinated on modifications to the terms of the utility programs, so that these DR resources now respond in an ERCOT Energy Emergency. In recent years, distributed energy resources have proliferated in the ERCOT region, not solely as a result of ERCOT or TDU programs, but because customers found them valuable for their own energy needs. ERCOT has been working for several years to obtain better information on such resources, particularly DG and DR, to locate them in relation to its system map, and incorporate them into the energy market. It seems clear that, whatever action the Commission takes in this project, customers will continue to find these resources valuable and will continue to install DG, storage and DG. Thus, it is inevitably a part of ERCOT's future that it will continue its efforts to understand these resources and how they affect day-to-day reliability and the longer-term need for new generation and transmission resources. In addition, it seems likely that ERCOT will have a better opportunity to understand the types and locations of resources that contract with TDUs, if this is an option that the Commission endorses in a rulemaking. Indeed, in adopting a rule on non-wires alternatives, the Commission could require that the TDUs provide information to ERCOT concerning such resources. This is an important issue that the Commission and ERCOT need to address, but it appears to be one for which a solution is readily at hand.

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<sup>13</sup> ERCOT Comments, at 3.

# CHANGES IN RATE-SETTING ARE NEEDED TO INCENTIVIZE UTILITIES TO IDENTIFY AND TAKE ADVANTAGE OF LOWER-COST COMPETITIVE RESOURCES TO RESOLVE RELIABILITY ISSUES

Several parties have proposed that the Commission modify the way utility rates are set, in order to incentivize utilities to identify and pursue options for meeting reliability needs that are more economical than installing new wires and substations. As TAEBA notes in its comments:

In the current cost-of-service regulatory model, capital investments are a large driver of returns to utility shareholders. In contrast, operating costs are generally passed through to customers in electric rates without the utility making any direct profits on them, although utilities remain incented to manage operating costs to reduce overall cost to customers, and also to manage profits between regulatory rate reviews.<sup>14</sup>

In order to realign the utilities' incentives, commenters have proposed a variety of innovative rate mechanisms, including capitalizing the costs of a third-party contract and sharing the savings resulting from a non-traditional technology or strategy between the utility and its customers.<sup>15</sup> AEMA believes that realigning the TDUs' incentives is an important goal, and that the Commission should explore rate innovations that would achieve this goal.

#### **CONCLUSION**

There are competitive energy technologies and strategies that can be deployed to meet or defer a transmission or distribution need, including energy efficiency, DR, DG and storage. There is also an alternative to utility ownership for meeting a transmission or distribution need: incentivizing investments in these technologies in specific locations where the need exists or by contracting with third parties for services that can meet or defer a transmission or distribution

<sup>&</sup>lt;sup>14</sup> TAEBA Comments, at 6-8.

<sup>15</sup> *Ibid*; Comments of SPEER, at 2, 6; Tesla, at 5; Public Citizen, at 15; the Wind Coalition (response to question no. 6).

need. These technologies and strategies are being employed in the provision of reliability and

adequacy resources today, and they have proven effective and economical resources. AEMA

Texas believes that the Commission should establish regulatory principles that support the use of

non-traditional resources owned by customers and third parties as a means of meeting

transmission and distribution needs, and adopt a rule based on these principles:

1. TDUs should be required to evaluate whether a transmission or distribution need can

be met by non-wires alternatives.

2. If so, the TDU should seek to facilitate the deployment of non-wires alternatives by

incentivizing investment by customers and third parties that could meet or defer the

need, or conduct a competitive solicitation for service from non-wires alternatives.

AEMA appreciates the opportunity to file these reply comments.

Respectfully submitted,

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