

## REPORT OF THE DEMAND-SIDE RESOURCES AND SMART GRID SUBCOMMITTEE

In this report, the Demand-Side Resources and Smart Grid Subcommittee summarizes key developments in state and federal regulation of demand-side resources and smart grid technology during 2016 and 2017.\*

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### I. FEDERAL REGULATORY DEVELOPMENTS

On December 1, 2017, the Federal Energy Regulatory Commission (FERC or the Commission) issued a declaratory order clarifying its jurisdiction over the participation of energy efficiency resources (EER) in wholesale electricity markets.<sup>1</sup> The FERC granted in part and denied in part a petition for declaratory order filed in June 2017 by Advanced Energy Economy (AEE), a trade association.<sup>2</sup> AEE requested the following declaratory rulings: (1) that “[FERC] has exclusive jurisdiction under the Federal Power Act (FPA) to regulate the participation of certain [EERs] in the wholesale electricity markets” operated by regional transmission organization and independent system operators (RTO/ISOs); (2) that state regulators cannot “bar, restrict, or otherwise condition the participation of certain EERs in wholesale electricity markets;” (3) that “it is unlawful for [state regulators] to change the terms and conditions of certain EER participation in wholesale [electricity] markets;” and (4) that the stakeholder processes in each RTO/ISO are inappropriate vehicles to resolve issues related to EER participation in the wholesale electricity markets.<sup>3</sup> AEE also asked FERC to clarify future limitations on state regulators’ “authority to bar, restrict, or condition the sale of EERs or other energy technologies into the wholesale electricity markets.”<sup>4</sup> AEE argued that restricting EER participation would harm competition and “result in unjust and unreasonable rates and undue discrimination in violation of the FPA[,]” because:

EERs benefit consumers and the electric grid by: (i) encouraging purchases of energy efficient products by lowering the consumer costs of such products; (ii) reducing energy usage without the need for any dispatch instructions, thus lowering consumer

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\* The Demand-Side Resources and Smart Grid Subcommittee thanks the following authors for their contributions to this report: Craig Berry, Patrick L. Morand and Paul Varnado.

1. *Advanced Energy Economy*, 161 F.E.R.C. ¶ 61,245 at P 57 (2017).

2. *Id.* at P 2.

3. *Id.* at P 1.

4. *Id.*

bills; (iii) reducing RTO/ISO capacity requirements, and improving reliability, by reducing the electric load in a region; and (iv) improving competition and reducing RTO/ISO capacity prices by increasing the supply of capacity resources.<sup>5</sup>

In its order, FERC found that it “has exclusive jurisdiction over the participation of EERs in wholesale [electricity] markets,” given its broad mandate in section 205 of the FPA of “ensuring that all rates and charges for or ‘in connection with’ the transmission or sale for resale of electric energy in interstate commerce, and rules and regulations ‘affecting or pertaining to’ such rates or charges are just and reasonable.”<sup>6</sup> The FERC reasoned that “[it] has [exclusive] jurisdiction over the participation of EERs in organized wholesale electricity markets as a practice *directly affecting wholesale markets, rates, and prices*” and that “this direct effect occurs when energy efficiency is offered directly into the wholesale capacity market, causing a reduction in demand and an increase in supply of capacity, thereby resulting in a lower wholesale capacity price.”<sup>7</sup> Because it has “exclusive jurisdiction to regulate the participation of EERs in [the organized] wholesale [electricity] markets, [FERC found] that a RERRA [(relevant electric retail regulatory authority)] may not bar, restrict, or otherwise condition the participation of EERs in wholesale markets unless the Commission expressly gives RERRAs such authority.”<sup>8</sup>

The FERC explained that “[a] unilateral state action that directly prohibits or limits the participation of EERs in the wholesale markets directly impacts which EERs are eligible for participation and ‘impermissibly intrudes upon the wholesale electricity market, a domain Congress reserved to [FERC] alone.’”<sup>9</sup> The Commission also explained that it “has discretion to decide whether to grant states an opt-out from allowing participation of EERs in wholesale electricity markets” and affirmed that it “did not [previously] provide for a RERRA to exercise an opt-out and bar or restrict the sale into the wholesale electricity markets of EERs.”<sup>10</sup>

The FERC reaffirmed its earlier approval in 2004 of a settlement agreement allowing one RERRA—the Kentucky Public Service Commission (Kentucky Commission)—“to bar or restrict the sale into the wholesale electricity markets of EERs originating in” Kentucky.<sup>11</sup> When the Kentucky Commission approved the integration of Kentucky Power Company (Kentucky Power) into the regional markets operated by PJM Interconnection, L.L.C. (PJM), it did so on the condition

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5. *Id.* at P 22.

6. 161 F.E.R.C. ¶ 61,245 at PP 57, 59-60 (citing 16 U.S.C. 824(d) (1920)).

7. *Id.* at P 60 (emphasis added) (citing *FERC v. Elec. Power Supply Ass’n*, 136 S.Ct. 760 (2016); *Demand Response Compensation in Organized Wholesale Energy Markets*, 134 F.E.R.C. ¶ 61,187 (2011) (to be codified at 18 C.F.R. pt. 35), *order on reh’g*, 137 F.E.R.C. ¶ 61,215 (2011), *vacated sub nom.* *Elec. Power Supply Ass’n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014), *rev’d*, *Elec. Power Supply Ass’n*, 136 S. Ct. 760 (2016); *Wholesale Competition in Regions with Organized Electric Markets*, 125 F.E.R.C. 61,071 (2008) (to be codified at 18 C.F.R. pt. 35), *order on reh’g*, 128 F.E.R.C. ¶ 61,059, *order on reh’g*, 129 F.E.R.C. ¶ 61,252 (2009)).

8. 161 F.E.R.C. ¶ 61,245 at P 61.

9. *Id.* at P 61 (quoting *Hughes v. Talen Energy Marketing LLC*, 136 S.Ct. 1288, 1292 (2016)).

10. *Id.* at PP 62, 65.

11. *Id.* at PP 8, 57, 66 (citing *New PJM Companies*, 107 F.E.R.C. ¶ 61,272 (2004)).

that PJM would not be able to offer demand-side management programs (including energy efficiency programs) directly to Kentucky retail customers.<sup>12</sup> Furthermore, since FERC approved the 2004 settlement, which affirmed the Kentucky Commission's order, FERC found it appropriate to allow that state's provision restricting the sale of EERs into the wholesale electricity markets to remain in effect.<sup>13</sup>

The FERC clarified that any necessary market changes in light of its finding "should be implemented in a manner that does not require changes to the results of [previously] completed [capacity] auctions," and that "EERs that already cleared [capacity] auctions should be permitted to fulfill their capacity obligations" and receive compensation for their performance.<sup>14</sup> In addition, FERC refused to declare "that the use of an RTO/ISO stakeholder process to develop tariff provisions implementing a RERRA's [opt-out] authority is improper," and "decline[d] to opine on requirements [it] would impose in the future in the event that an RERRA requests" a declaratory order giving it authority to bar or restrict the sale of EERs into the wholesale electricity markets.<sup>15</sup>

## II. STATE REGULATORY DEVELOPMENTS

Several state regulatory authorities have continued their efforts to integrate and incentivize distributed electric generation and other emerging energy technologies. The following noteworthy developments occurred during 2016-2017 in California, the District of Columbia, and New York.

### A. California

On November 10, 2016, the California Public Utilities Commission (CPUC) approved a Distributed Energy Resource (DER) Action Plan in order to outline the agency's long-term vision for DER policy and to serve as a roadmap in coordinating activities across multiple DER-related proceedings and cases at the CPUC.<sup>16</sup> The three areas of focus are: (1) reforming rates and tariffs, including time-of-use retail rates to reflect system marginal cost; (2) streamlining distribution planning, infrastructure, interconnection and procurement procedures to facilitate deployment and interconnection of DER; and (3) wholesale DER market integration and interconnection, to ensure that "[w]holesale market rules and interconnection tariffs," including those of the California Independent System Operator (CAISO), allow behind-the-meter DERs to participate robustly in markets.<sup>17</sup>

On December 22, 2016, the CPUC issued a decision creating a "regulatory incentive mechanism pilot" to facilitate the deployment of DER as a means of

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12. *Id.* at PP 67-68.

13. 161 F.E.R.C. ¶ 61,245 at P 69.

14. *Id.* at P 70.

15. *Id.* at PP 57, 71-72.

16. CAL. PUB. UTIL. COMM'N, *California's Distributed Energy Resources Action Plan: Aligning Vision and Action* (Nov. 10, 2016), [http://www.cpuc.ca.gov/uploaded-Files/CPUC\\_Public\\_Website/Content/About\\_Us/Organization/Commissioners/Michael\\_J\\_Picker/2016%20DER%20Action%20Plan%20FINAL.pdf](http://www.cpuc.ca.gov/uploaded-Files/CPUC_Public_Website/Content/About_Us/Organization/Commissioners/Michael_J_Picker/2016%20DER%20Action%20Plan%20FINAL.pdf).

17. *Id.* at 3-6.

deferring capital expenditures on the distribution system.<sup>18</sup> This decision directed each of the investor-owned utilities in California to identify at least one project in their service territories “where the deployment of [DERs] on the system would displace or defer the need for capital expenditures on traditional distribution infrastructure.”<sup>19</sup> The CPUC identified the key distribution services that DERs can provide as: (1) distribution capacity—load-modifying or supply services;” (2) voltage support— “dynamic voltage management services;” (3) reliability—”fast reconnection and availability of excess reserves to reduce demand when restoring customers during abnormal configurations;” and (4) resiliency—microgrid services.<sup>20</sup>

The CPUC established a pilot incentive mechanism for the utilities to recover their costs for these demonstration projects, representing “an initial step [for the CPUC] to [later] examine alternative payment structures for utilities” to source DER projects on a permanent basis.<sup>21</sup>

### B. District of Columbia

On January 25, 2017, the District of Columbia Public Service Commission (DCPSC) issued a Commission Staff Report on Modernizing the Energy Delivery System for Increased Sustainability (MEDSIS) and solicited public comments.<sup>22</sup> The report outlined the localized need for grid modernization; identified existing legal barriers to DER deployment; proposed regulatory changes, including changes to interconnection procedures and retail rate tariffs; analyzed the economic benefits of grid modernization and resiliency; and proposed the allocation of DER pilot project funds which were paid by Potomac Electric Power Company (Pepco), the District’s distribution utility, as a condition of the DCPSC’s March 2016 approval of Pepco’s merger with Exelon Corporation.<sup>23</sup>

The DCPSC continues to implement its MEDSIS proceeding and facilitate grid modernization, including the issuance of two Notices of Proposed Rulemaking in November 2017 to revise certain definitions in its regulations and to streamline certain rules governing DER construction.<sup>24</sup>

### C. New York

On October 27, 2016, as part of its Reforming Energy Vision (REV) initiative, the New York Public Service Commission (NYPSC) released a Staff Report

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18. Rulemaking 14-10-003, *Addressing Competitive Solicitation Framework & Utility Regulatory Incentive Pilot*, Decision 16-12-036, PUB. UTIL. COMM’N OF THE STATE OF CAL. (Dec. 22, 2016).

19. *Id.* at 2.

20. *Id.* at 77-78.

21. *Id.* at 58-63, 71.

22. Formal Case No. 1130, *In the Matter of the Investigation into Modernizing the Energy Delivery Structure for Increased Sustainability*, Order No. 18673, PUB. SERV. COMM’N OF D.C. (Jan. 25, 2017).

23. *See generally* PUB. SERV. COMM’N OF D.C., FORMAL CASE NO. 1130: MODERNIZING THE ENERGY DELIVERY SYSTEM FOR INCREASED SUSTAINABILITY (2017).

24. *See generally* Notice of Proposed Rulemaking, *Formal Case No. 1130, Modernizing the Energy Delivery System for Increased Sustainability*, 64 D.C. Reg. 44, PP 3-4 (Nov. 3, 2017); *see also* Second Notice of Proposed Rulemaking, *Formal Case No. 1130, Modernizing the Energy Delivery System for Increased Sustainability*, 64 D.C. Reg. 44, PP 3-4 (Nov. 3, 2017).

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and Recommendations on the Value of Distributed Energy Resources.<sup>25</sup> The report identified “[t]he [n]eed for [m]ore [p]recise [v]aluation and [p]ricing” of DER, given a variety of existing technical and legal constraints.<sup>26</sup>

The NYPSC subsequently issued an order on the value of DER on March 9, 2017, which initiated a transition away from net metering toward implementing a new, value-based approach to compensating DER.<sup>27</sup> The NYPSC’s order initiated Phase II of its DER proceeding, during which it will hold a series of working groups through early 2018 to (1) analyze and quantify the value of DER resources for meeting the state’s electric demand; and (2) revise retail electric rates in New York state to adequately compensate DERs.<sup>28</sup>

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25. N.Y. PUB. SERV. COMM’N, STAFF REPORT AND RECOMMENDATIONS ON THE VALUE OF DISTRIBUTED ENERGY RESOURCES PROCEEDING (2016).

26. *Id.* at 4-6, 20.

27. Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters, *In the Matter of the Value of Distributed Energy Resources*, Case 15-E-0751, N.Y. PUB. SERV. COMM’N (Mar. 9, 2017); Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters, *Proceeding on Motion of the Commission as to the Policies, Requirements and Conditions for Implementing a Community Net Metering Program*, Case 15-E-0082, N.Y. PUB. SERV. COMM’N (Mar. 9, 2017).

28. *See generally id.*

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