

Energy Markets and Finance Committee Newsletter

Vol. 7, No. 1

August 2018

MESSAGE FROM THE EDITOR

Heather Rosmarin

The Energy Markets and Finance Committee is pleased to bring you this Summer 2018 newsletter. Articles in this issue analyze the California Independent System Operator's latest market offering and provide an update on the Federal Energy Regulatory Commission's rulemaking process regarding aggregated distributed energy resources.

These topics relate to a significant trend in our field—the continued growth of markets for renewable and distributed energy resources—and the regulatory issues associated with optimizing the integration of these resources. We thank the authors for sharing their expertise with us.

We have also compiled a list of recent publications by government agencies and research organizations that provide data on clean energy technology deployment and financing trends in the United States and internationally.

For example, *Global Trends in Renewable Energy Investment 2018* documents the record amount of renewable power capacity added worldwide in 2017: a total of 157 gigawatts (GW) of renewable power, including 98GW of solar, was installed last year compared to 70GW of net fossil fuel generating capacity. FRANKFURT SCHOOL-UNEP CENTRE/BNEF, GLOBAL TRENDS IN RENEWABLE ENERGY INVESTMENT 2018, at 11 (2018). Further, the report finds that global investment in renewable

energy, excluding large hydro, totaled \$279.8 billion in 2017, led by China (\$126.6 billion) and the United States (\$40.5 billion). *Id.* This publication and other timely reports are available for free and can be accessed via links on our committee's webpage.

Our members' contributions to the *Year in Review 2017* include substantive articles on impacts of recent federal and state legislation, regulation, and policy action on electricity markets. The *Year in Review 2017* is free to SEER members and can be downloaded here: https://www.americanbar.org/groups/environment_energy_resources/publications/year_in_review_home/year_in_review_2017.html.

We hope you will find these articles and resources informative.

Other accomplishments of our committee this past year include organizing a CLE webinar in December 2017 on legal developments affecting cap-and-trade markets. A recording of the webinar, "It's a New Day: California's Cap and Trade Extension Legislation and Its Impact on Federal and International Climate Change Programs," is available at <https://shop.americanbar.org/eBus/Store/ProductDetails.aspx?productId=294167238&term=california+cap+and+trade>. Committee members who purchase the webinar receive a discount and 1.5 hours of general CLE credit.

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CLE Webinar

October 17-20, 2018
26th Fall Conference
San Diego, CA

**For full details, please visit
www.ambar.org/EnvironCalendar**

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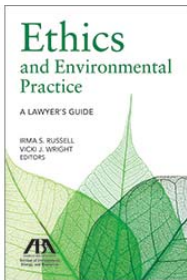
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Bar Association or the Section of Environment, Energy, and
Resources.

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As we begin a new ABA SEER year, we thank our 2017–18 co-chairs, Keith Casto and Miles Kiger, for their leadership, and we welcome our new 2018–19 co-chairs, Joseph Donovan and Heather Rosmarin, as well as all of our vice chairs.

Finally, we are looking forward to the ABA SEER Fall Conference in San Diego on October 17–20, 2018, and we hope to see you there. More information and registration details are available at <https://shop.americanbar.org/ebus/ABAEventsCalendar/EventDetails.aspx?productId=300900029>.

Heather Rosmarin is the Executive Director of the InterAmerican Clean Energy Institute and 2017–18 vice chair of Newsletters for the ABA SEER Energy Markets and Finance Committee. She holds a J.D. from the University of California, Berkeley.



Ethics and Environmental Practice: A Lawyer's Guide

Irma S. Russell & Vicki J. Wright,
Editors

Sometimes the practice of environmental law seems to involve an endless stream of ethical problems, and there is added importance to these issues because there is real potential for public safety concerns in these cases. This book provides a broad focus for the practitioner, addressing the diverse and important issues of legal ethics that can arise in the context of environmental law

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THE FUTURE OF REGIONAL ELECTRICITY MARKETS IN THE WESTERN INTERCONNECTION: ANALYSIS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR'S LATEST MARKET OFFERING IN THE CONTEXT OF RECENT FEDERAL ENERGY REGULATORY COMMISSION RULINGS

Jennifer E. Gardner

The Western Interconnection covers the United States from the Pacific Ocean to the Great Plains and is one of the major power grids in North America. U.S. ENERGY INFO. ADMIN., *U.S. Electric System Is Made Up of Interconnections and Balancing Authorities*, <https://www.eia.gov/todayinenergy/detail.php?id=27152> (last visited June 27, 2018). As most other regions of the country eagerly established regional electricity markets in the wake of Federal Energy Regulatory Commission (FERC) Orders 888, 889, and 2000, which created greater generator competition and wider transmission access by encouraging the creation of Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs), the Western Interconnection (outside of California) instead remained in a highly balkanized operating paradigm with minimal coordination. *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, 75 FERC ¶ 61,080 (1996) (Order 888); *Open Access Same-Time Information Systems (formerly Real-Time Information Networks) and Standards of Conduct*, 75 FERC ¶ 61,078 (1996) (Order 889); and *Regional Transmission Organizations*, 89 FERC ¶ 61,285 (1999) (Order 2000). Today, the Western Interconnection includes 38 balancing authorities, of which 35 are in the United States. WESTERN ELECTRICITY COORDINATING COUNCIL, *Western Interconnection Balancing Authorities*, https://www.wecc.biz/Administrative/Balancing_Authorities_JAN17.pdf (last visited Aug. 5, 2018).

However, as renewable energy deployment has increased steadily across the West in recent years,

utilities have realized that regional electricity markets offer a cost-effective solution to the challenges associated with integrating high levels of variable renewable energy such as wind and solar. Against this backdrop, since 2014, the Western Energy Imbalance Market (EIM), a real-time energy market, has provided critical reliability and balancing services necessary to integrate the Western region's rapidly increasing renewables portfolio. Correspondingly, as utilities have realized millions of dollars in benefits from EIM participation, competition for day-ahead energy market offerings in the Western region has exploded. Over the past two years alone, the following market operators have announced competing market proposals: the California Independent System Operator (CAISO), the Southwest Power Pool (SPP), and Peak Reliability (in its partnership with the Pennsylvania, New Jersey, Maryland Interconnection, LLC, or PJM). Although Peak Reliability recently announced plans to cease operations at the end of 2019, thereby ending its partnership with PJM, CAISO and SPP are still actively competing to offer market services in the Western Interconnection. Press Release, Peak Reliability, Peak Funder Feedback Indicates Support for Wind Down (July 18, 2018) (available at: https://www.peakrc.com/whatwedo/Transitional/Lists/Announcements/Attachments/5/2018_07_18%20Peak%20Stakeholder%20Bulletin%20final%20for%20posting.pdf).

Amidst this backdrop, this article analyzes one of these market offerings—CAISO's EIM plus Day-Ahead Market—in the context of recent FERC rulings and considers how best to address potential legal challenges that may arise at FERC, thus paving the way for even greater market participation and renewable energy integration in the Western region.

Western Interconnection Electricity Markets Background

CAISO's Western EIM

The Western EIM arose out of many years of discussions in a variety of regional forums specifically focused on the need for a market

solution that could more effectively integrate high penetrations of renewables. The EIM is a voluntary real-time market and is therefore not an RTO or ISO. RENEWABLE NORTHWEST, *EIM Frequently Asked Questions*, <https://renewablenw.org/EIM-FAQ> (last visited June 27, 2018). Stated another way, it is an intra-hour balancing service, using CAISO's real-time market software that commits generation every 15 minutes and re-dispatches committed generation every 5 minutes, in a least-cost manner.

In contrast to RTOs and ISOs, as the EIM's market operator, CAISO does not assume operational control over the EIM's participating transmission facilities. Rather, CAISO and each of the participating EIM entities retain their current North American Electric Reliability Corporation-registered reliability functions. Finally, while both the EIM and an RTO require start-up costs for participation, there is no fee for exiting the Western EIM.

In November 2014, PacifiCorp became the first utility to participate in the EIM. NV Energy joined the following December. To date, 11 entities have elected to participate in the EIM, and by 2020, the Western EIM footprint will include approximately two-thirds of total load in the Western Interconnection. Comments of the California Independent System Operator Corporation, *In the Matter of a Commission Investigation into the Feasibility of Public Service Company of New Mexico Becoming a Member of the Southwest Power Pool*, New Mexico Public Regulation Commission, Case No. 17-00261-UT, at 5 (Nov. 21, 2017).

Since it began operations in 2014, the EIM has realized over \$400 million in total benefits and 306,112 equivalent tons of CO₂ reduction through avoided renewable energy curtailments. CALIFORNIA ISO, WESTERN EIM BENEFITS REPORT, SECOND QUARTER 2018, at 3, 14 (2018). With its relatively low barrier to entry, easy exit provisions, and significant economic benefits, it is no wonder that the EIM has become known as a "low risk"

and “no regrets” market option in the Western Interconnection. Initial Comments of the Coalition for Clean Affordable Energy, *In the Matter of a Commission Investigation into the Feasibility of Public Service Company of New Mexico*, *supra*, at 2.

CAISO’s Western EIM + Day-Ahead Market Offering

Earlier this year, CAISO released a straw proposal clarifying its intent to make certain enhancements to its day-ahead market. The proposal includes implementing 15-minute (as opposed to hourly) scheduling granularity, combining the integrated forward market and residual unit commitment processes, and procuring imbalance reserves. CALIFORNIA ISO, DAY AHEAD MARKET ENHANCEMENTS: ISSUE PAPER/STRAW PROPOSAL (2018). Building upon the EIM’s success, CAISO will also offer EIM entities the opportunity to participate in the improved day-ahead market. This initiative is known as the EIM + Day-Ahead Market Offering, or “EDAM.”

According to CAISO, these changes are designed to “increase the efficiency of the day-ahead market by accounting for fluctuations in variable energy resources,” and “present an opportunity for participants in the Western EIM to explore expansion into the day-ahead time frame, which would increase coordination and cost savings significantly while maintaining control of their transmission system.” Comments of the California Independent System Operator Corporation, *In the Matter of a Commission Investigation into the Feasibility of Public Service Company of New Mexico*, *supra*, at 7–8. CAISO further anticipates that these “enhancements” will be offered at a reduced cost when compared to the cost of full participation in CAISO’s day-ahead market. *Id.* at 8.

Through EDAM, CAISO intends to offer Western EIM participants the opportunity to participate in a day-ahead market, while still maintaining control of their respective transmission systems. As a result, the transmission-owning utilities

participating in the EIM (and those who may be interested in joining at a later date) can experience many of the benefits of day-ahead markets without necessarily triggering the need for state regulatory approvals, as would be required for RTO or ISO participation. Additionally, by offering day-ahead market services to EIM participants, EDAM can operate within the EIM’s existing governance structure, avoiding the politically fraught debates inherent in establishing new governance models.

FERC Precedent

In considering the potential legal issues related to the EDAM proposal, it is instructive to review two prior market proposals that came before FERC and the reasoning behind FERC’s decisions.

FERC’s Rejection of MISO’s Market Coordination Service Proposal

In 2009, the Midcontinent Independent System Operator (MISO) proposed the MISO Market Coordination Service, or “Market Service,” which would have provided access to MISO’s energy and operating reserve markets over the systems of eligible transmission owners, while not requiring them to transfer control of their transmission systems to MISO or to provide transmission service over their systems. *Midwest Independent Transmission System Operator, Inc., Order on Market Service Proposal*, 126 FERC ¶ 61, 139, at 2 (2009).

Market Service would have differed from full participation in MISO in several ways. A Market Service customer would not turn over functional control of its transmission facilities and would continue to administer its own tariff and its own transmission planning. *Id.* at 4. Market Service customers would also be permitted to continue charging a pancaked rate for transmission service through or out of their systems. *Id.* Finally, existing members of MISO’s RTO could terminate their participation, pay their respective exit fees, and elect to take service under the Market Service proposal instead. *Id.* at 5.

Ultimately, FERC relied on Order 2000 in finding MISO’s Market Service proposal unjust and unreasonable “due to the potential adverse impact it may have on both [MISO’s] ability to perform regional transmission operations and the corresponding benefits that accrue to customers.” *Id.* at 1. While FERC recognized MISO’s proposal as “an innovative and noteworthy attempt” to integrate additional geographic areas into its markets, and acknowledged that the proposal had the potential to provide both reliability and economic benefits when compared to the status quo, FERC was ultimately concerned with RTO defection and the resulting impact on consumers. *Id.* at 23.

FERC’s Approval of CAISO’s EIM

On June 19, 2014, FERC conditionally approved CAISO’s EIM proposal, enabling entities outside of CAISO to sign service agreements with California’s market operator, which allowed them to use the ISO’s real-time market to satisfy their imbalance energy obligations. *California Independent System Operator Corp., Order Conditionally Accepting Proposed Tariff Revisions to Implement Energy Imbalance Market*, 147 FERC ¶ 61, 231 (2014) (CAISO EIM Order).

This decision was unsurprising, given FERC’s previous approval of Southwest Power Pool’s Energy Imbalance Service—a similar real-time energy market proposal. *See Southwest Power Pool, Inc.*, 118 FERC ¶ 61,055 (2007) (authorizing SPP to begin imbalance market operations on Feb. 1, 2007). Yet, FERC’s decision conditionally approving the EIM offers key insights regarding how FERC is likely to approach CAISO’s EDAM proposal.

Unlike MISO’s Market Service, FERC noted that no intervenor opposed CAISO’s EIM filing. Rather, a minority of intervenors took issue with particular market design elements of the EIM. Also, CAISO’s proposal did nothing to change the actual operation of the real-time market. Rather, it expanded CAISO’s existing real-time market to cover a broader geographical scope and to

involve a larger number of participants. CAISO EIM Order at 28. Perhaps most importantly, in contrast to MISO’s Market Service, FERC saw CAISO’s EIM proposal as a bridge to further market participation in the Western region rather than as a new market or disruption of the existing market structure. *Id.* Therefore, FERC expressed no concerns regarding the EIM’s overall impacts to consumers. Rather, FERC pointed to the large potential economic benefits to customers, as well as increased reliability and integration of variable energy resources, in its rationale for approving the EIM. *Id.*

Conclusion and Recommendations

Although the exact details of CAISO’s EDAM proposal will not be fleshed out until later this year, both EDAM and Market Service are similar proposals in that they permit real-time market participants access to an existing day-ahead market, without necessitating the transfer of control of transmission assets to the market operator—a transfer of control that is typically required for participation in an RTO or ISO. If FERC previously rejected MISO’s Market Service, how can CAISO appropriately distinguish EDAM to support its proposal at FERC?

First, CAISO should highlight EIM’s success story. As predicted, the EIM has not threatened CAISO’s other markets, but rather has enabled the unprecedented growth of market participation in the Western United States. It logically follows that adding more services to the EIM will only increase benefits and enhance its already proven success. Second, CAISO should address FERC’s concerns in the 2009 MISO Order by establishing the following:

- While EDAM presents an opportunity for participants in the Western EIM to explore expansion into the day-ahead time frame, it will *not* go so far as to create a new incentive for current CAISO members to leave the ISO. Therefore, EDAM (1) will *not* reduce market benefits for remaining

CAISO members through cost shifts; (2) will *not* harm CAISO's ability to perform regional transmission operations and the corresponding benefits that accrue to customers; and (3) will *not* threaten CAISO's compliance with the scope and configuration requirements of Order 2000 by creating large "gaps" within the current market footprint.

- EDAM may eventually serve as a transitional step to full ISO membership and thus increase CAISO's existing market footprint. However, EDAM and the Western EIM *can* successfully co-exist with CAISO's other markets. Thus, under either scenario, market participation will continue to expand and customer benefits will continue to grow.

Assuming CAISO can convincingly support the aforementioned arguments at FERC, EDAM is likely to survive the legal challenges that befell the MISO Market Service proposal. Once approved, EDAM offers the potential for not only greater market participation by Western Interconnection utilities, but also the ability to integrate even greater penetrations of renewables, further reducing carbon emissions while realizing economic and reliability benefits for utilities and their customers in the Western United States.

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AGGREGATED DISTRIBUTED ENERGY RESOURCES IN US WHOLESALE ELECTRICITY MARKETS: UPDATE ON THE FEDERAL ENERGY REGULATORY COMMISSION'S RULEMAKING PROCESS

Patrick L. Morand

Earlier this year the Federal Energy Regulatory Commission (FERC) issued a final rule, Order No. 841, removing barriers to energy storage resource participation in the organized wholesale electricity markets operated by regional transmission organizations (RTO) and independent system operators (ISO). *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 83 Fed. Reg. 9580 (Mar. 6, 2018) (to be codified at 18 C.F.R. pt. 35). Much has been written about this rule, and for good reason: Order No. 841 is a significant step toward integrating energy storage resources into the RTO/ISO markets. *See, e.g.,* Peter Maloney, *FERC Order Opens "Floodgates" for Energy Storage in Wholesale Markets*, UTIL. DIVE (Feb. 20, 2018), <https://www.utilitydive.com/news/ferc-order-opens-floodgates-for-energy-storage-in-wholesale-markets/517326>; Jeff St. John, *FERC Allows Energy Storage to Play in Nationwide Wholesale Markets*, GREENTECH MEDIA (Feb. 15, 2018), <https://www.greentechmedia.com/articles/read/ferc-energy-storage-wholesale-markets#gs.LcHbS7E>.

However, Order No. 841 did not include certain reforms proposed in FERC's notice of proposed rulemaking (NOPR) regarding the participation of aggregated distributed energy resources (DER) in RTO and ISO markets. Instead of including aggregated DERs in Order No. 841, FERC set a technical conference to gather additional information to help it determine what action it should take with respect to DER aggregation participation in the organized electricity markets. Order No. 841, 83 Fed. Reg. at 9582–83. Although the two-day technical conference, which was held in April 2018, covered a lot of ground, many questions regarding DER aggregation

participation in the RTO/ISO markets remain. This article reviews the topics discussed at the technical conference and highlights key issues and pending questions that appear likely to shape future FERC rulemaking regarding the participation of aggregated DERs in the nation's wholesale electricity markets.

Aggregated DERs

While there are many definitions for DERs, there are certain characteristics that are commonly attributed to them. First, DERs are “distributed” because they are either located on a utility’s distribution system or “behind the meter” on or near an end-use customer’s property. Second, they tend to be relatively small in size. Third, DERs can supply electricity (i.e., distributed generation); reduce electricity consumption through demand-side management such as demand response or energy efficiency programs; or both (e.g., energy storage resources). “Traditionally, DERs referred to small, geographically dispersed generation resources . . . located on the distribution system,” but that definition “has evolved to include not only generation resources, but also energy storage, energy efficiency, and demand response resources.” FERC STAFF REPORT, DISTRIBUTED ENERGY RESOURCES, TECHNICAL CONSIDERATIONS FOR THE BULK POWER SYSTEM [Docket No. AD18-10-000] 7–8 (2018).

For example, DERs may include a residential rooftop solar photovoltaic system; a combined heat and power system serving a university campus; a small hydroelectric facility serving a manufacturing plant; or electric vehicles and their charging stations. In most jurisdictions, if a DER generates more electricity than is required by the end-use customer, the excess electricity can be injected back onto the distribution system for a credit on that customer’s electric bill. *State Net Metering Policies*, Nat’l Conference of State Legislatures (Nov. 20, 2017), <http://www.ncsl.org/research/energy/net-metering-policy-overview-and-state-legislative-updates.aspx>.

Notably, the excess electricity of multiple DERs can be combined, or aggregated, and treated as one resource. Similarly, the reduction in electricity consumption provided by multiple DERs can also be aggregated.

FERC Rulemaking Process Related to DER Aggregation

When FERC issued the NOPR that led to Order No. 841, FERC proposed reforms to remove barriers to the participation of both electric storage resources and DER aggregations in the RTO/ISO organized wholesale capacity, energy, and ancillary service markets. Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators, Notice of Proposed Rulemaking, 81 Fed. Reg. 86,522 (proposed Nov. 17, 2016). In the NOPR, FERC explained that participation of these resources in the organized electricity markets is governed by RTO/ISO tariffs, and that those tariffs must be able to accommodate the particular physical and operational characteristics of these resources as well as the technical requirements for the market services that they may provide. NOPR, 81 Fed. Reg. at 86, 522–23. FERC expressed concern that RTOs and ISOs may not be able to update their market rules before a new resource becomes commercially able to sell into the organized electricity markets, requiring such a resource to participate under one of the existing participation rules developed for some other type of resource, which could result in barriers for the new resources to participate in such markets. *Id.* Consequently, FERC proposed to require each RTO and ISO to revise its market rules to establish participation models that recognize the physical and operational characteristics of electric storage resources and DER aggregations and that accommodate their participation in the organized electricity markets. *Id.* at 86,523.

With respect to DER aggregations specifically, FERC explained that “[t]here has been significant industry attention paid to the development of

[DERs] and the potential for such resources to contribute to grid services.” *Id.* at 86,539. FERC noted that DERs generally “tend to be too small to participate directly in the organized wholesale electric markets on a stand-alone basis” and that “they may have difficulty satisfying all of the operational performance requirements of the various participation models due to their small size.” *Id.* FERC reasoned that “[a]llowing these resources to participate in the organized wholesale electric markets through [DER] aggregations can help to remove the[] barriers to their participation, providing a means for these resources to, in the aggregate, satisfy minimum size and performance requirements that they could not meet on a stand-alone basis.” *Id.*

However, when FERC issued Order No. 841 fifteen months later, on February 15, 2018, it elected not to take action on the DER aggregation reforms proposed in the NOPR. Order No. 841, 83 Fed. Reg. at 9582–83. In the final rule, FERC explained that it “continue[s] to believe removing barriers to [DER] aggregations in the RTO/ISO markets is important,” but that “more information is needed with respect to those proposals.” *Id.* FERC elected instead to explore the proposed DER aggregation reforms in a separate proceeding, Docket No. RM18-9-000. *Id.* FERC issued a notice of technical conference in that proceeding and a parallel proceeding, Docket No. AD18-10-000 (relating to technical considerations for the bulk power system), for April 10–11, 2018.

FERC’s Technical Conference and Invitation for Comments

The two-day technical conference held in April 2018 consisted of seven panel discussions of which five—panels 1, 2, 3, 6, and 7—focused on FERC’s DER aggregation proposal (the other two focused on the potential effects of DERs on the bulk power system more generally). *See* Further Supplemental Notice of Technical Conference, Docket Nos. RM18-9-000 and AD18-10-000 (Apr. 9, 2018) (attaching Agenda). Panel 1 addressed “the integration of DER aggregations into the modeling, clearing, dispatch, and settlement mechanisms of

RTOs and ISOs as considered in the NOPR.” *Id.*, Agenda at 1. Panel 2 provided “an opportunity for state and local regulators to provide their perspectives and concerns about the operational effects that DER participation in the wholesale market could have on facilities they regulate.” *Id.* at 3. Panel 3 explored “potential solutions to challenges associated with DER aggregations that provide multiple services, including ways to avoid duplication of compensation for their services in the RTO/ISO markets.” *Id.* at 5. Panel 6 examined “the potential ways for RTOs/ISOs, distribution utilities, retail regulatory authorities, and DER aggregators to coordinate the integration of a DER aggregation into the RTO/ISO markets.” *Id.* at 10. Finally, Panel 7 addressed “the operational considerations associated with both individual DERs and DER aggregations and with the interactions and communications between DERs, DER aggregators, distribution utilities, and transmission operators [i.e., RTOs/ISOs].” *Id.* at 12.

After the technical conference, FERC issued a notice inviting “post-technical conference comments on the topics concerning [its] DER aggregation proposal” as well as “several follow-up topics and questions.” Notice Inviting Post-Technical Conference Comments, Docket No. RM18-9-000, at 1 (Apr. 27, 2018). Specifically, FERC requested further comments on “the DER aggregation topics and questions related to Panels 1, 2, 3, 6, and 7 from the two previous notices.” *Id.* (emphasis omitted). In addition, FERC requested additional information on topics related to panels 1, 2, and 6. Post-Technical Conference Questions for Comment, Docket No. RM18-9-000, at 1–8. With respect to panel 1, FERC requested additional information regarding, among other things, the limited interest of DER aggregators in using the California ISO’s DER provider model, and “on the benefits of being able to aggregate across multiple nodes versus the market operator’s need to accurately represent the capabilities of the aggregation at individual nodes.” *Id.* at 2. Regarding panel 2, FERC sought additional comment on “a limited opt-out provision which would allow states to require DERs to choose participation in either the RTO/ISO market or retail

compensation programs, but not both.” *Id.* at 4. With respect to panel 6, FERC requested additional comments on, among other things, the need for criteria to evaluate the ability of an individual DER to participate in a DER aggregation as well as the ability of a DER aggregation to participate in the RTO/ISO markets, and on the RTO/ISO interconnection processes that apply to the interconnection of DERs to FERC-jurisdictional transmission and distribution facilities. *Id.* at 7. FERC requested that these comments be submitted by June 26, 2018.

Post-Technical Conference Comments

Approximately 50 parties submitted comments in response to the notice inviting post-technical conference comments. Those parties included DER providers such as solar and energy storage companies; DER aggregators; distribution utilities; RTOs/ISOs; state regulators; and industry groups, among others. The comments submitted by the different stakeholder groups were sometimes at odds with each other and at other times were aligned. For example, certain DER providers expressed an immediate need for establishing market rules to accommodate participation in the RTO/ISO markets. *See* Comments of Sunrun Inc. in Support of Allowing DERs to Compete in Wholesale Markets, Docket No. RM18-9-000, at 2 (June 26, 2018); Comments of Tesla, Inc., Docket No. RM18-9-000, at 1 (June 26, 2018). Some RTOs/ISOs, on the other hand, recommended a slower, more deliberate pace. *See* Comments of the Midcontinent Independent System Operator, Inc., Docket No. RM18-9-000, at 4 (June 26, 2018); Post-Technical Conference Comments of ISO New England Inc., Docket No. RM18-9-000, at 2 (June 26, 2018). However, all of these same entities were in agreement that there is a need for some regional flexibility for RTOs/ISOs to accommodate DER participation in the RTO/ISO markets. The comments submitted in response to the other topics and questions posed by FERC followed a similar pattern. In other words, there was little consensus among the different stakeholder groups and mostly diverging perspectives.

Key Issues and Open Questions

Based on the panel discussions at the technical conference, and the additional comments submitted by the various stakeholder groups afterward, the key issues and open questions regarding DER aggregation participation in the RTO/ISO markets would seem to fall into one of three categories.

First, whether there is sufficient demand or incentive for DER aggregations to participate in the RTO/ISO markets, especially where states may require DER aggregations to choose between participation in an RTO/ISO market or a retail compensation program. Currently, a DER aggregation will likely earn more in a retail program than in an RTO/ISO market. *See* Justin Gundlach & Romany Webb, *Distributed Energy Resource Participation in Wholesale Markets: Lessons from the California ISO*, 39 ENERGY L.J. 47, 73 (2018). A corollary question is, if there is not sufficient demand right now, whether it would be better to establish these rules at a later time.

Second, assuming there is sufficient demand for DER aggregations to participate in the RTO/ISO markets, whether DER aggregations should be limited to individual pricing nodes or permitted to span multiple nodes.

Third, establishing clearly defined roles and responsibilities, including information sharing, for the individual DER owners, the DER aggregators, the distribution utilities, and the RTOs/ISOs, as well as clearly defined regulatory responsibilities for the state regulators and FERC.

Until these issues and questions can be addressed sufficiently, it seems unlikely FERC will issue another NOPR, let alone a final rule, regarding DER aggregation participation in the RTO/ISO markets. Interested practitioners and energy sector stakeholders can follow the rulemaking proceeding on the eLibrary page of FERC’s website, *available at* <https://www.ferc.gov/docs-filing/elibrary.asp>.

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