



ARKANSAS

General History Arkansas opted out of FERC 719 in 2013 with the passage of the Regulation of Electric Demand Response Act. The legislation amended Arkansas Code Section 23-18-1003 to place demand response aggregation under PSC jurisdiction and prohibited third-party demand response aggregation without explicit commission approval. Since then, the Arkansas Public Service Commission (PSC) has investigated the topic in its DER proceeding (Docket No. 16-028-U) but never designed rules, and aggregators are not active in the state. Order #10 in Docket No. 16-028-U included a report authored by the Regulatory Assistance Project (RAP) offering a set of policy recommendations related to DER and DR aggregation, the adoption of which would have supported increased ARC participation. That order also identified the following issues for future consideration in the proceeding: third party access to utility data; communications upgrades; cybersecurity; confidentiality and privacy; processes for customer consent for access to data, data agreements, and programs such as Green Button; interconnection standards; hosting capacity; and DER services, DER compensation mechanisms, programs, and issues of subsidy and stranded costs. Neither these issues nor RAP's recommendations were further considered by the PSC in any rulemaking capacity. In 2020 Walmart applied for permission to aggregate DR resources in Docket No. 20-027-U, but the matter never received a PSC ruling.

In 2020, the Arkansas PSC's original FERC 719 opt-out proceeding was reopened to consider another round of comments (Docket No. 09-090-U, Order 14). In June 2022, the PSC issued a set of questions considering potential implementation considerations if the state were to open its wholesale market to DR aggregator participation.

Regulation of Electric Demand Response Act (Act 1078): <https://e9radar.link/iuob>
Docket No. 16-028-U: <http://e9radar.link/irmz>
Docket No. 16-028-U, Order 10: <https://e9radar.link/69d>
Docket No. 20-027-UN: <https://e9radar.link/n42>
Docket 09-090-U, Order 14: <https://e9radar.link/oao>

Jurisdiction The Arkansas PSC has explicit jurisdiction to regulate ARCs. The Regulation of Electric Demand Response Act amended Arkansas Code Section 23-18-1003 to provide that “[t]he marketing, selling, or marketing and selling of demand response within the State of Arkansas by electric public utilities or aggregators of retail customers” is subject to regulation by the Arkansas PSC or, in the case of a municipally owned electric utility or a consolidated municipal utility improvement district, the local governing authority (AR State Legislature, 2013). According to PSC staff officials, the rules as established are broad and have yet to be implemented. Jurisdictional rules that would apply to ARCs if DR was implemented would also potentially apply to DERs.

Arkansas Code Section 23-18-1003: <https://e9radar.link/244n>

Dispute Resolution Arkansas has not established an ARC-specific process due to the lack of activity in the state. The PSC has experience addressing dispute resolution related to net metering applications.

Registration and Licensing Arkansas has not established an ARC-specific process but has an established process for net metering facilities. Entities proposing net metered projects submit applications which are followed by PSC hearings.

Dual Participation Arkansas has not established double-counting rules for DR. The PSC's 2018 report addresses double counting and proposes mechanisms to create communication and synergy between



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aggregators and utilities.

**Role of
Aggregators**

Not yet considered.

Data Protection

Data protection was discussed during DER Investigation workshops but has not since been addressed in any rulemaking capacity. According to a PSC staff official, "Data protection I think will come later" (AR PSC, 2022).



CALIFORNIA

General History California's demand response market is dominated by retail programs offered by the state's utilities. Between 2016 and 2018, the California Public Utilities Commission (PUC) approved rules proposed by each utility facilitating aggregator or Demand Response Provider (DRP) registration, customer subscription, and operation. Separately, the CPUC has developed rules addressing customer data privacy and protection. An official from the CPUC's Public Advocate Office held the opinion that California is not a national leader in demand response, at least in the retail market context.

CAISO has its own rules and processes to facilitate direct participation of demand response resources directly into wholesale energy markets. These include telemetry requirements and ability to qualify for minimum load curtailment and run time benchmarks. Since the majority of demand response resources in California take service from one of the state's three retail utilities, satisfying retail requirements to qualify as a DRP would serve as a prerequisite to dual participation between retail and CAISO markets.

PG&E Rule 24: <https://e9radar.link/b30>

SCE Rule 24 home page: <https://e9radar.link/0c72>

SDG&E Rule 32: <https://e9radar.link/hn5>

DRP FAQ: <https://e9radar.link/js1>

Jurisdiction CPUC DR jurisdiction rules were designed and are exercised mostly in the context of utility programs. Each utility's rules clarify the types of entities that qualify for DR program participation. For example, PG&E identifies the following entities as subject to its Rule 24:

- a. Utilities acting on behalf of its customers as the Load Serving Entity (LSE), DRP, Utility Distribution Company (UDC), Meter Data Management Agent (MDMA), or Meter Service Provider (MSP).
- b. Affiliates of utilities acting as a DRP
- c. Non-Utility affiliated DRPs enrolling Bundled Service customers.
- d. Bundled Service customers acting as a DRP for their own load.

An official from the CPUC's Public Advocate Office noted that jurisdictional requirements related to registration and reporting were designed to ensure that DR resources are able to meet the state's reliability needs.

Dispute Resolution The CPUC has established a formal dispute resolution process based on California codes of standards and/or conduct.

Registration and Licensing Aggregators participating in retail markets are required to register, provide information about their customers, and post a bond. Customers are required to download and fill out a consent form, which was designed as a two-page document for accessibility. Substantive provisions are found in utility tariffs: Rule 24 for Pacific Gas & Electric/Southern California Edison, and Rule 32 for San Diego Gas & Electric. Customers registering with CAISO apply through its Demand Response Registration System (DRRS), which requires basic and technical information about the resource including business, address, locational information, operational timeline, and reporting about the resource itself including performance and load values and anticipated use limits.

[NEW] DRRS User Guide: <https://e9radar.link/bvb7>



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Dual Participation California aggregators must comply with the CPUC and CAISO's Dual Participation rules. Since DR participation in wholesale markets is more limited in California, double counting between mutually exclusive retail programs or tariffs is more of a concern. According to its DRRS Userr Guide, CAISO's registration process "performs a series of processes... to ensure the uniquely identified end-use customer is being registered appropriately and not participating in overlapping registrations or retail programs" (CAISO, 2020). NEM customers are not allowed to also participate in DR programs.

Role of Aggregators Each utility has established eligibility requirements for and/or limitations on aggregators. While California has DR resources active in most or every rate class, programs may have specific eligibility requirements.

Data Protection California developed statewide data governance rules related to privacy and customer protection in 2011, within Docket No. R.08-12-009. These rules do not allow for the disclosure of customers' personal information, such as name, address, phone number, or electric or gas account and billing information, to third parties unless customers expressly authorize them to do so. The order implemented a U.S. Department of Homeland Security framework for information systems affecting national security called Fair Information Practice (FIP) principles, which cover issues related to transparency, individual participation, purpose specification, data minimization, use limitation, data quality and integrity, security, and accountability and auditing. The final order of Docket No. R.08-12-009 directed utilities to develop tariffs, eligibility requirements, and procedures for Commission oversight over third-party energy usage data access, which in practice have largely been implemented within utility retail DR aggregation rules (i.e. PG&E Rule 27).

Docket No. R.08-12-009, Decision 11-07-056 <https://e9radar.link/ykj>
PG&E Rule 27: <https://e9radar.link/zj19>



INDIANA

General History A 2010 order in the Indiana Utility Regulatory Commission's (IURC) investigation into end-use customer participation in MISO and PJM DR programs, Indiana opted out of FERC 719 (Filing WL 3073664, Cause No. 43566). Specifically, citing potential regulatory challenges including introduced uncertainty to utility resource planning and potential cost-shifting, the IURC ultimately found that, "Although direct customer participation in RTO demand response programs may make sense for customers in competitive retail and wholesale markets, we lack the evidence necessary to determine this structure would work effectively for customers in Indiana's traditionally regulated retail jurisdiction" (IURC, 2010). The order encouraged Indiana distribution utilities to work with aggregators to propose retail demand response programs and tariff offerings, noting a gap in retail DR offerings for small and medium C&I customers and adding that "explore opportunities with CSPs which may further enhance participation in demand response by customers of all sizes, classes, and sophistication" (IURC, 2010). I&M's C&I wholesale capacity program is one example of a retail DR program that emerged following filing WL 3073664.

In March 2022, the Indiana legislature passed H.B. 1111, adopting Indiana Code Chapter 40.1 section 8-1-40.1-4 and directing the IURC to "adopt rules that the commission determines to be necessary to implement Federal Energy Regulatory Commission Order No. 2222 concerning distributed energy resources and distributed energy resource aggregators" (IN State Legislature, 2022). In December 2022, the IURC hosted its first stakeholder workshop on the matter in which FERC, MISO, and PJM each presented; stakeholder comments are due on February 2, 2022. IURC staff described the stakeholder process as designed to be as "open-minded and flexible as possible," noting the goal of "distilling a strong straw-man set of rules" and the possibility of opening a formal docketed investigation depending on stakeholder feedback (IURC, 2022). The scope of the IURC's regulatory effort is directly relevant to several of the policy topics below, including adjudication of aggregation disputes, double counting concerns, questions around whether to define aggregators as 'public utilities', operational oversight, and coordination between the RTO, utilities, aggregators and IURC.

Cause No. 43566, WL 3073664: <https://e9radar.link/9oj>

H.B. 1111: <https://e9radar.link/ge6s>

Indiana Code (IC) 8-1-40.1-4: <https://e9radar.link/gmq1>

IURC FERC 2222 Implementation Page: <https://e9radar.link/xrvb>

FERC Presentation: <https://e9radar.link/0tys>

MISO Presentation: <https://e9radar.link/v8qj>

PJM Presentation: <https://e9radar.link/lpyz>

Jurisdiction IURC staff held the opinion that DR and DER aggregators would fall under IURC jurisdiction. The outcomes of the IURC's FERC 2222 implementation process will likely put this principle into practice, and is further considering questions around state vs. federal jurisdiction over DERs and whether aggregators will be regulated as 'public utilities'.

Dispute Resolution No rules have been established, but the topic has been internally discussed among IURC staff. DER interconnection rules have not yet been updated to address resource aggregations, but "Adjudication of (pre-registration/aggregation registration) disputes" and "Distribution utility overrides of DERs to maintain reliability, and disputes arising therefrom" are two topics for comment in the IURC's FERC 2222 implementation process (IURC, 2022). The IURC has a consumer division and established procedures around complaints, unspecific to DER or DR aggregation.



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- Registration and Licensing** Under the existing arrangement, registration of DR aggregators must be facilitated through the filing and approval of a utility retail program or tariff. The IURC's FERC 2222 implementation process is likely to provide guidance for customer registration processes facilitating direct wholesale market participation.
- Dual Participation** The IURC's FERC 2222 implementation process is considering "dual participation (retail and wholesale participation) and double-counting concerns or challenges" (IURC, 2022).
- Role of Aggregators** The IURC's 2010 opt-out order describes Curtailment Service Providers (CSPs, i.e. aggregators) as an "interface or agent between an RTO and an end-use customer for the provision of demand response through the customer's curtailment of electricity" (IURC, 2010). Since that order, CSPs in Indiana have facilitated aspects of aggregation for utility retail DR programs. The IURC's FERC 2222 implementation process is evaluating whether to regulate aggregators as 'public utilities' and may lead to new guidance around limitations or eligibility requirements of aggregators.
- Data Protection** The IURC's FERC 2222 implementation process emphasizes the need to develop rules around operational control and oversight of DERs and rules governing coordination between entities, each of which will require it to develop data governance rules. FERC, MISO, and PJM's presentations in the process's first workshop each addressed data governance issues.



KANSAS

General History Kansas did not opt out of FERC 719, although it has sometimes been characterized as such (i.e. in filings related to FERC 2222). Kansas Corporation Commission (KCC) staff officials expressed viewing the introduction of aggregators over the past 18 months-2 years through the frame of a 'modified conditional opt-out'. This means that the KCC soon hopes to develop rules and conditional requirements for aggregators, potentially in the next 6 months.

A January 2023 filing by Evergy in (Tracking No. TR2300305 in Docket No. 23-EKCE-588-TAR) may offer the KCC a venue to develop such rules. Evergy petitioned to amend its tariff to develop several processes to facilitate the registration and operation of Demand Response Aggregators (DRA) and their customers in the state. The changes would define DRA; require customers enrolling in DRAs to submit "Customer Registration and Consent Form" to Evergy; and require DRAs to enter into a Distribution Utility – Demand Response Aggregator (DU-DRA) Agreement with Evergy, a proposed template of which Evergy attached in the filing. Evergy presents the DU- DRA Agreement as representing a "business registration" form intended to create "a uniform and transparent approach to reviewing demand response participation requests" (Evergy, 2023). Evergy presents that agreement would represent not only a KCC-approved registration process that involves utilities and aggregators, but also a central mechanism to clarify entity responsibilities, facilitate customer protection and operational data sharing, prevent double counting, mitigate administrative delays, and ultimately "strike a balance between facilitating certain retail customers' desires to participate in the wholesale market as demand response resources and ensuring Evergy's ability to fulfill its distribution utility and retail service responsibilities for all customers' in its service area" (Evergy, 2023). The proceeding remains open as of March 2023.

Docket No. 23-EKCE-588-TAR: <http://e9radar.link/r541>
Tracking No. TR2300305: <https://e9radar.link/9jj0>

Jurisdiction KCC staff officials assumed that aggregation activity will primarily operate through the state's investor-owned utilities. In those cases, it would regulate DER or DR aggregation activity through its jurisdiction over state utilities. This approach will likely play out in the context of Evergy's petition in Docket No. 23-EKCE-588-TAR.

Dispute Resolution No established process.

Registration and Licensing Aggregators in Kansas currently register as a Demand Response Aggregators (DRA) market participant through SPP. SPP protocols then require a notice be sent to both the relevant distribution utility and the KCC, initiating a 45-day period to raise any concerns about a retail customer's registration with SPP. According to the background information in Evergy's petition to change the DRA registration process, the utility "then reviews the registration information to confirm, among other items, that the registration reflects accurate information about the customer account and applicable load, and that the customer does not participate under a retail tariff or program that would conflict with such customer's wholesale market participation." Largely in its review of Customer Data Authorization forms, it also "seeks to confirm that the retail customer has consented to the registration and SPP market participation" (Evergy, 2023).

Evergy's petition in Docket No. 23-EKCE-588-TAR seeks to adjust two tariffs to implement new prerequisite steps to the DRA registration process. It proposes that DRAs would first be required to enter into a Distribution Utility – Demand Response Aggregator (DU-DRA) Agreement with its



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jurisdictional utility, which covers data protection, data sharing, double counting, and administrative issues and a template of which is attached in Tracking No. TR2300305. DRAs would also be required to submit "Customer Registration and Consent Form" for participating customers to Evergy.

Dual Participation In one instance, there was some concern about an example of double counting in which a large customer was being compensated for an Evergy Kansas DR program and attempted to also participate in the wholesale market. In response, Evergy Kansas companies' tariff established a protocol for aggregators to shift participation from SPP's Operating Reserves Market to Evergy load curtailment. Aggregators like Voltus provide SPP with load data and dispatch notifications to confirm the absence of double counting, which are accessible to the distribution utility.

In its petition in Docket No. 23-EKCE-588-TAR, Evergy proposes a Distribution Utility-Demand Response Aggregator (DU-DRA) Agreement that would require the DRA to affirm that there are no double compensation, double counting, or compliance issues with its participation in SPP markets. The DU-DRA also requires the DRA to confirm that it has complied with all KCC, FERC, and SPP requirements for participation in the wholesale market, including the double compensation rules laid out in FERC Order 2222 and SPP's Order 2222 compliance filing.

Role of Aggregators

Evergy's petition in Docket No. 23-EKCE-588-TAR proposes to define Demand Response Aggregators (DRA) as "an entity that aggregates the load of one or more Customers for purposes of participation as demand response in the SPP Integrated Marketplace" (Evergy, 2023). Most if not all DR in the state is with commercial & industrial customers.

Data Protection

Currently, Evergy ensures that customers have signed and submitted a Customer Data Authorization form when it reviews applications for DRA participation received from SPP.

Evergy's petition in Docket No. 23-EKCE-588-TAR seeks to further implement a "Customer Registration and Consent Form" intended so that customers have sufficient knowledge of their data usage to deliver consent. Evergy's proposed process further seeks to standardize data coordination between entities to ensure operational safety and performance. For example, "the DU-Aggregator Agreement contains provisions that ensure protection of both Evergy and customer information that has been disclosed to the DRA and memorializes that the DRA may request and Evergy may provide to the DRA customer-specific data, but such information can be shared only pursuant to an executed Customer Data Authorization form" (Evergy, 2023). The proposal would also provide Evergy with rights to audit the accuracy of data and information provided by the DRA.



MARYLAND

- General History** Maryland did not opt out of FERC 719 and has hosted third-party demand response aggregators, primarily contracting with commercial & industrial customers, since the 2000s. In 2011, the Maryland Public Service Commission (PSC) issued an order in its Investigation of the Regulation of Curtailment Service Providers (CSPs) (Case No. 9421) ruling that CSPs qualify as electricity generators and retail suppliers under Maryland law and establishing a registration process.
- Since then, the Maryland PSC has not initiated further rulemaking addressing CSPs and DR aggregation policy. PSC staff officials generally felt that DR aggregation markets were functioning without issue and do not require immediate regulatory intervention.
- Case No. 9421 Order No. 84275: <https://e9radar.link/35e609>
- Jurisdiction** In 2011, Maryland established jurisdiction to regulate CSPs as electricity providers.
- Dispute Resolution** The Maryland PSC has a customer division that would be capable of handling disputes related to CSPs, but has not received a complaint in the 11 years since CSPs have been active in the state. Establishing a DR-specific dispute resolution process may be a topic of consideration as the commission moves toward FERC 2222 implementation.
- Registration and Licensing** In 2011, Maryland established a registration process in which CSPs are required to provide the Commission with basic information including name, company credentials, and contact information. According to PSC staff officials, the Commission has approved every CSP application it has received.
- Maryland CSP Application: <https://e9radar.link/hne>
- Dual Participation** According to PSC staff officials, double counting has not been "a topic of discussion," considering that "the market seems to work pretty well." Officials noted that PJM has more specific procedures in place to enforce the prohibition of double counting.
- Role of Aggregators** CSP's classification as electric suppliers allows broad participation. In practice, most if not all of Maryland's CSPs work with commercial & industrial customers.
- Data Protection** The 2011 order established the CSPs' need to "maintain the confidentiality of retail customer data and commercially sensitive information." There has not been further directly relevant rulemaking. CSPs handle data issues directly with customers. According to PSC staff officials, "There's not much need for us to make [data governance] protections for residential customers, as they [CSPs] would likely go after bigger companies that should have more protection for themselves."



MICHIGAN

General History Michigan opted out of FERC 719 in 2017, maintaining the free participation of aggregators in the 10% of its market that allows retail competition. The 2017 decision in Case No. U-18369 affirmed the ability of utilities to contract with third-party demand response aggregators in commission-approved arrangements.

In the late 2010s, the Michigan Public Service Commission (PSC) hosted years-spanning working group activity related to demand response issues in two separate proceedings (Case Nos. U-20348, U-20645). A 2019 order (Filing No. U-20348-0013) argued that opening the market to third-party DR aggregation may introduce uncertainty and complexity to integrated planning and operational challenges if participation was not implemented transparently, ultimately not enacting changes to the state's vertically integrated market. However, this 2019 Order rescinded the PSC's 2017 limitation on third-party aggregation and allowed third-party aggregators to directly bid aggregated DR for retail choice load into wholesale markets.

In December 2022, the Michigan PSC revisited its 2019 order (Filing No. U-20348-0042) in light of the experience gained with retail choice DR aggregation and a tightening capacity market. In Docket No. U-20348, the PSC lifted the prohibition on aggregated demand response participation in wholesale markets for "extra large" resources with enrolled load exceeding 1 MW. The order was framed as a preliminary step towards further opening market access to aggregated resources, and framed the 1 MW limit as a "temporary size minimum for participation," limited to large C&I customers "in order to address consumer protection issues and to minimize the administrative burden on utilities." The order continued that the Commission "intends to work with stakeholders to develop appropriate consumer protection policies for resources smaller than 1 MW... and may revisit the ban on aggregation for bundled retail loads smaller than 1 MW" (MI PSC, 2022). The order stresses the need to develop and gain authority to implement licensing processes for smaller resources that ensure adequate customer protection. It recognizes the need for further investigation and identifies the existing MI Power Grid DR Workgroup as an effective venue to continue developing market rules. A February 2023 Order (Filing No. U-20348-0044) clarified that an exception to the 1MW threshold will be permitted for corporate C&I customers in Michigan and that these entities may aggregate load across multiple sites to meet the 1MW threshold.

Filing No. U-18369-0015: <https://e9radar.link/xi8>

Case No. U-20438: <https://e9radar.link/g0e>

Filing No. U-20348-0013: <https://e9radar.link/7vc>

Case No. U-20645: <https://e9radar.link/1apl>

Filing No. U-20348-0042: <https://e9radar.link/hwdy>

Filing No. U-20348-0044: <https://e9radar.link/p4us>

Jurisdiction The PSC has not established jurisdiction over aggregators. Its December 2022 order partially lifting Michigan's opt-out explains its intention to determine its authority over aggregators before developing a licensing process for smaller DR and DER aggregations.

Dispute Resolution According to PSC staff officials, disputes related to DR or DERs usually arise from inaccurate data. They typically do not rise to the level of a state-level dispute resolution process and are addressed through the MISO registration process. If an aggregator or similar market participant submits incorrect data as part of their registration, the utility either rejects that registration outright or flags the error for the aggregator to fix and resubmit.



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The PSC's December 2022 order partially lifted Michigan's opt-out notes that MISO's aggregator licensing process and tariffs delegate aspects of market enforcement to the RTO and FERC. MISO's tariffs "provide consequences for failure to abide by MISO's established requirements and in no way prohibit any party from filing a complaint with FERC" (MI PSC, 2022 p. 36).

Registration and Licensing

Registration occurs through MISO, which requires accreditation documentation supporting an ARC's demand reduction capability at MISO Coincident Peak as well as names and contact information for the relevant utility, the PSC, and customers involved. As part of the registration process, MISO sends high-level details like peak load contribution and business data to the commission. The commission does not have access to customer-specific data within these interactions and the data that the Commission receives is treated as confidential. Prompted by issues related to participation in regional resource capacity markets, the PSC issued an order in June 2022 including questions aimed at designing an aggregator licensing process.

While the PSC delegates registration to MISO for the large customers authorized for direct participation in wholesale markets in its December 2022 order, it emphasizes that the development of a PSC-facilitated licensing process will be a key enabling factor for expanding the reversal to smaller and residential customers. The order notes the PSC's intention to "work with its stakeholders and aggregators to outline a proposed licensing process" in 2023, and subsequently seek the jurisdictional authority to facilitate such a process (MI PSC, 2022 p. 37).

Filing No. U-20348-0036: <https://e9radar.link/6iq>

Dual Participation

According to PSC staff officials, there is concern about double counting and double compensation within the PSC and among Michigan ratepayers, but enforcing its prohibition will likely remain a responsibility for the utilities per the RTO registration process. Before the PSC's December 2022 order partially lifting Michigan's opt-out, utilities expressed concerns about double counting in their resistance to the reversal. The PSC argued that, "MISO's aggregation tariff has in place a process to identify and prevent double counting, which the Commission finds sufficiently addresses and ensures that double counting and double compensation is avoided" (MI PSC, 2022 p. 37).

Role of Aggregators

Michigan uses MISO's definition of an ARC: "A Market Participant that represents demand response on behalf of one or more eligible retail customers, for which the participant is not such customers' LSE, and intends to offer demand response directly into the Transmission Provider's Energy and Operating Reserve Markets, as a Planning Resource or as an EDR resource." While aggregators currently have no additional definitional limitations in Michigan, the PSC demonstrated its interest in its December 2022 order in expanding competitive utility protocol to the aggregator space. This could materialize as a licensing process with baseline requirements including financial stability, an office in MI, a contact within the MSPC, adequate customer protections, etc.

Data Protection

According to PSC staff officials, data protection and sharing are of immediate concern to Michigan. Officials describe that simple, yet secure customer data sharing is important to ensure aggregators have the information they need to correctly submit data in the MISO registration process. Officials stated that in Michigan aggregators must receive customer consent to share their data in order to access utility information via utility data portals or direct utility communications.

The PSC's December 2022 order partially lifting Michigan's opt-out identifies the need to develop stronger customer protection rules as part of expanding its reversal to smaller and residential customers. The Order explains that, "Prior to lifting the DR aggregation ban for



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bundled residential and smaller C&I customers, the Commission will endeavor to outline the desired consumer protections to guard against deceptive marketing tactics that have been employed in the past by certain AESs and their third-party marketers" (MI PSC, 2022 p. 37).

With regard to sharing of customer information across entities, the order explained that ARC access to data is necessary for them to know which C&I customers have already committed load to a utility program and market function overall. The Commission found that concerns about customer data sharing and security "can be resolved through the use of non-disclosure agreements that maintain confidentiality and protect customer's proprietary information." The order ultimately encouraged utilities to "work in good faith to expedite consumer access to the DR market and provide aggregators access to the required data on an as-needed basis," citing Green Button Connect as a useful existing tool for energy data sharing. Citing its authority over the treatment of customer information, the Commission also notes that data sharing activity will be subject to approved utility privacy tariffs (MI PSC, 2022 pp. 38-39).



MINNESOTA

General History Minnesota opted out of FERC 719 in 2010 and opened an "Investigation into the Potential Role of Third-Party Aggregation of Retail Customers," Docket No. 22-600, to review a potential reconsideration in December 2022. The proceeding's opening Notice of Comment Period invites comments addressing whether the Commission should permit aggregators of retail customers to bid demand response into organized markets; create tariffs to allow third-party aggregators to participate in utility programs; whether the PUC would need to verify or certify aggregators prior to their participation; and whether additional customer protections would be necessary if aggregators were allowed to participate in organized markets. Comments and reply comment deadlines are set for spring 2023.

In March 2022, the PUC approved Xcel's load flexibility pilot, which represented a limited experiment with third-party aggregation and set the stage for Docket No. 22-600. The proceeding produced a 43 MW program and tariff which allows third-party aggregation of demand response among Xcel customers (Docket No. 21-101). The Minnesota PUC describes the program as a "dispatchable load-shedding program for commercial customers designed to test options to increase customer participation in demand response." Previously, Minnesota hosted activity related to third-party-owned DER through the Minnesota Public Utilities Commission (PUC) Community Solar Gardens proceedings (Docket Nos. 13-867, 15-825). While PUC staff officials noted that utility Integrated Distribution Plans (IDPs) may be a future venue for discussion about DR aggregation, the topic was mostly sidelined by in the first round of utility proposals in 2022 (Docket Nos. 21-694, 21-390).

Xcel Community Solar Garden proceeding: Docket No. 13-867

Minnesota Power Community Solar Garden proceeding: Docket No. 15-825

Xcel Integrated Distribution Plan: Docket No. 21-694

Minnesota Power Integrated Distribution Plan: Docket No. 21-390

<http://e9insight.com/state-redirect-mn/>

Xcel Load Flexibility Pilot Order: <https://e9radar.link/7hb6>

PUC Notice of Comment Period: <https://e9radar.link/71d394>

Jurisdiction No jurisdiction has been established. PUC staff officials noted in an interview it's an issue they are having conversations about. The topic will likely be addressed by commenters in the PUC's "Investigation into the Potential Role of Third-Party Aggregation of Retail Customers."

Dispute Resolution Minnesota has engaged in dispute resolution related to third-party DER deployment & interconnection. Disputes between customers, developers, and utilities have emerged and often are sent to PUC regulatory staff if they include technical questions. Third-party developers can generate disputes when they are negligent in permitting or application processes. Some disputes are deferred to the Attorney General's office.

Registration and Licensing The closest activity to a DR resource registration process in Minnesota is facilitated by the Dept. of Labor and Agency, but PUC staff officials characterized it in an interview as more of a contractor certification. The Notice of Comment period in the PUC's "Investigation into the Potential Role of Third-Party Aggregation of Retail Customers" asks: "Should the Commission verify or certify aggregators of retail customers for demand response or distributed energy resources before they are permitted to operate, and if so, how?" (MN PUC, 2022).



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Dual Participation PUC staff officials noted in an interview that they are aware of this concern but noted that there hasn't been an explicit reason to develop rules, so the issue remains more of an "awareness" (MN PUC, 2022).

Role of Aggregators Limitations or eligibility requirements are only established on a retail program basis.

Data Protection Minnesota has three key commission-led proceedings broadly addressing data governance issues. The first key proceeding, Docket No. 19-505, was established to respond to third-party customer data access issues related to a joint Xcel and Centerpoint petition to share building energy use data in small rental properties in compliance with Minneapolis ordinance. A 2020 Order, Docket ID 202011-168476-01, established a set of third-party Open Data Access Standards to go into effect beyond the scope of Xcel and Centerpoint's petition, which provide procedures for data aggregation and anonymization and terms of contracts between utilities and third-parties.

The second proceeding is the PUC's broad Distribution Grid Data Security (Docket No. 19-685), which was opened following DER integration-related data governance issues raised in Xcel's 2019 Hosting Capacity Analysis proceeding. This proceeding remains open and in October 2020 issued a Notice of Comment Period cofiled in a third data access proceeding, the PUC's Investigation into Grid Data Access (Docket No. 20-800). This notice (Docket ID 202010-167790-03) poses the issue: "What, if any, action by the Commission is needed to address electric distribution grid and customer security issues related to public display or access to grid data; including, but not limited to, distribution grid mapping, aggregated load data, and critical infrastructure?" (MN PUC, 2020). It asks the following sub-questions:

1. What are the electric distribution grid and customer security issues related to public display or access to grid data; such as, distribution grid mapping, aggregated load data, and critical infrastructure?
2. What framework should the Commission use to evaluate the risks, costs and benefits of providing access to electric distribution grid data publicly?
3. What models should the Commission look to for appropriately balancing access to electric distribution grid data with grid and customer security concerns?
4. Should the Commission host a workshop or facilitated discussion on this topic?

An August 2022 extension of the stakeholder comment period (Document ID 20228-188405-01) asked whether the PUC should adopt one of several intervenor frameworks and whether the proceeding should stay open.

In addition, the PUC's "Investigation into the Potential Role of Third-Party Aggregation of Retail Customers" requests comments on whether specific consumer protections are necessary to enable third-party aggregator participation in organized markets.

PUC Investigation into Distribution Grid Data Security: Docket No. 19-685

Document ID 20228-188096-01: <https://e9radar.link/71b839>

Whole Building Third-Party Data Access Petition: Docket No. 19-505



NEW YORK

General History The New York Department of Public Service (DPS) has developed rules relevant to DR aggregation in DER proceedings active since the mid-2010s, including its DER Regulation and Oversight (Case No. 15-M-0180), Value of DER (Case No. 15-E -0751), and Reforming the Energy Vision (Case No. 14-M-0101) proceedings. These proceedings and utility programs have developed DER rules relevant to DR aggregation. For example, in 2017 the DER Oversight proceeding issued Uniform Business Practices for DER that addressed foundational issues including sales agreements, customer data, customer inquiries and complaints, and more (Filing No. 188). The DPS updated these Practices in 2019, primarily addressing outstanding customer protection issues (Filing No. 271, Appendix A).

New York utilities filed proposals updating their electric tariffs in Docket No. 22-E-0549 in September 2022. These updates were aligned with FERC Order 2222's requirement that each RTO and ISO revise its tariff to establish DER aggregators as a type of market participant. The main function of these tariffs is to facilitate the dual participation of DR aggregations in utility and wholesale markets and ensure the prohibition of double counting. Several of the companies' proposals (i.e. ConEd) implement a component of NYISO's approved tariff, which prohibits aggregators from enrolling wholesale resources that provide substantially the same service in a retail program.

DER proceedings:

- Case No. 15-M-0180: <http://e9radar.link/yn3l>
- Case No. 15-E -0751: <https://e9radar.link/3ec5bf>
- Case No. 14-M-0101: <http://e9radar.link/e4kn>
- Case No. 15-M-0180, Filing No. 118: <https://e9radar.link/8536a5>
- Case No. 15-M-0180, Filing No. 271: <https://e9radar.link/1984d0>
- Case No. 15-M-0180, Filing No. 271 Appendix A: <https://e9radar.link/f6dec0>
- DER supplier registration form: <https://e9radar.link/hta>

Utility tariffs:

- Docket No. 22-E-0549 Item No. 1: <https://e9radar.link/idth>
- ConEd (Filing No. 5): <https://e9radar.link/jtd>
- Central Hudson: <https://e9radar.link/1fe>
- National Grid (Filing No. 6): <https://e9radar.link/69de12>
- NYSEG (Filing No. 7): <https://e9radar.link/ebu>
- Orange & Rockland (Filing No. 2): <https://e9radar.link/3b9f17>
- RG&E (Filing no. 4): <https://e9radar.link/dy3>

Jurisdiction New York has asserted jurisdiction over regulating DER providers, which in compliance with FERC 2222 extends to DER and DR aggregators.

Dispute Resolution The DER Uniform Business Standards established in 2019 state that "Department Staff will accept inquiries and complaints related to DER suppliers and will make efforts to investigate and resolve those complaints and, if necessary, bring those complaints to the Commission for consideration" (NY DPS, 2019). Suppliers are required to submit complaints to the DPS.

Registration and Licensing Section 3 of the DER Uniform Business Standards established in 2019 provides details about community distributed energy (CDG) and on-site mass market DG providers' registration requirements, which apply to DR aggregators.



Summary Notes

DER Aggregation Interviews

- Dual Participation** New York utility tariff proposals feature a new compensation option for "Value Stack Customers," titled the "Wholesale Value Stack." These customers will receive payment for energy and capacity from the NYISO while continuing to be eligible to receive the applicable Value Stack non-energy and non-capacity compensation from the utility.
- Role of Aggregators** Beyond the broad parameters established in the DER Uniform Business Standards around DER supplier eligibility, each of New York's utility tariff filings implements NYISO's prohibition of DER suppliers that provide substantially the same service in wholesale as retail markets.
- Data Protection** The DER Uniform Business Standards established in 2019 address issues related to protecting customer data, many of which were established in Docket No. 15-M-0180's Order Establishing Minimum Cybersecurity and Privacy Protections and Making Other Findings (Filing No. 316). In their registration process, DER suppliers are required to demonstrate how they plan to use customer data and receive consent. Customers retain the right to request blocking suppliers' access to their data. Suppliers are prohibited from selling customer data obtained by the utility and must comply with state data security rules. Many of the cybersecurity and data privacy protections were established in Docket No. 15-M-180's 2019 Order Establishing Minimum Cybersecurity and Privacy Protections, Filing No. 316.

Filing No. 316: <https://e9radar.link/1d9634>



OKLAHOMA

General History	<p>Oklahoma Corporation Commission (OCC) staff and counsel did not identify any historical filing indicating a request to opt out of FERC 719. In recent years third-party demand response aggregators have enrolled commercial & industrial customers and participated in Oklahoma markets. In early 2022, OCC began to address DR aggregation issues through a proceeding designed around a proposed Public Service Company of Oklahoma (PSO) Voluntary Curtailment Service tariff (Docket No. 2021000172, Filing No. 30444860). Although PSO's application is to implement a retail tariff, OCC staff described the proceeding as the main venue in which they are soliciting feedback from interveners about DR aggregation. The application does consider dual participation, responding to the Commission question, "If a customer is participating in another capacity-related demand response tariff will that customer taking service under this proposed VCS Tariff receive a capacity credit for curtailments?" (PSO, 2022).</p> <p>In January 2023, the OCC issued a final order in the case (Order No. 731145), approving the VCS tariff and ruling against PSO's contested language that, "Customers participating in a third-party demand response program are not eligible to participate under this tariff" (OCC, 2023).</p> <p>Docket No. 2021000172: https://e9radar.link/ysz2 Filing No. 30444860: https://e9radar.link/urm6 Order No. 731145: https://e9radar.link/a1ha</p>
Jurisdiction	No established jurisdiction.
Dispute Resolution	No established process.
Registration and Licensing	No formal process for registration. The OCC usually receives notifications from aggregators or SPP when new customers are registered.
Dual Participation	In the PSO's VCS Tariff proceeding, the utility sought to disallow customers taking service under its tariff to enroll in aggregations directly participating in wholesale markets, due to double counting concerns. In the proceeding's final order (Order No. 731145), the OCC dismissed PSO's concerns. It noted that double counting between PSO tariff is not substantially different than double counting between PSO and SPP offerings. The OCC concluded that, "As long as PSO has participation, operation, and metering data comparable to data it has for customers participating in PSO's own demand response riders and programs, the coordination and double counting concerns of PSO should be fully resolved" (OCC, 2023). The order adopted language to facilitate customer information-sharing regarding dual participation and related obligations, as well as implementing a 1-year suspension to the program in the event that customers fail to comply.
Role of Aggregators	No established rules.
Data Protection	While cybersecurity and data protection are topics that have been internally discussed by OCC staff, the state has not developed a new operating model to address customer and system protection from aggregators.



PENNSYLVANIA

General History Pennsylvania did not opt out of FERC 719. In 2008, the state legislature enacted HB 2200 or Act 129 into law, establishing Conservation Service Providers (CSPs) Subsequently, the Pennsylvania Public Utilities Commission (PUC) established, defined, and created rules for CSPs in Docket No. M-2008-2074154, which includes DER aggregators. CSPs have actively participated in demand response aggregation markets in the years since.

Act 129 materials: <https://e9radar.link/8x9>

Docket No. M-2008-2074154: <https://e9radar.link/bss>

Docket No. M-2008-2074154, Final Order & Registration Materials: <https://e9radar.link/7xb>

List of orders establishing CSP qualifications: <https://e9radar.link/626>

Jurisdiction PUC authorizing statute does not allow it to regulate DR aggregation, except in select circumstances. The Commission's jurisdiction over DER aggregations has not been established by any findings of fact, as it has not had the opportunity to formally examine the structure of any particular DER aggregator. The PUC has authority over distribution but not generation, so its jurisdiction over DER aggregation would depend on whether or not it qualifies as generation.

PJM, Pennsylvania's regional transmission organization (RTO), deals directly with DR aggregators while PUC staff officials describe the PUC's role as an overhead authority. The PUC regulates DR aggregator registration and marketing but only intervenes in further activity on a case-by-case basis. Aggregators are technically within PUC jurisdiction when they do business with utility companies.

Dispute Resolution Pennsylvania has not yet developed a process specific to DER aggregation, but its general complaint regulations are flexible and according to staff will likely be able to accommodate DER aggregation cases.

Registration and Licensing The PUC and the Pennsylvania Department of State register CSPs. CSPs broadly include any company that wishes to do work for utility companies and are categorized based on a series of qualifying characteristics. In the application process, the PUC primarily reviews a company's financial fitness (bankruptcy, complaints, capacity to serve requirements).

CSP Form of Registration: <https://e9radar.link/awg>

Dual Participation Double counting is prohibited by Pennsylvania statute. Prohibition is enforced at the RTO level, through default service action or EGS with customers.

Role of Aggregators Eligibility requirements for CSPs were established in the PUC's 2009 order.

Data Protection In Pennsylvania currently, only Electric Generation Suppliers (EGSs) are allowed access to customer data through PUC/Dept. of Community & Economic Development-developed portals. By contrast, a final order in Enerwise's petition to be granted EGS status (Docket No. A-2019-3009271) affirmed that CSPs and other third parties are not allowed to access customer data and denied their ability to seek voluntary regulation as an EGS to gain access. The Enerwise order further mandated the establishment of a new proceeding to investigate CSP access to utility customer data (Docket No. M-2021-3029018), which was initiated in February 2022 and is currently receiving comments. The initiating letter (Document No. 1733535) published a set of questions for comment related to Electric Distribution Company (EDC) Smart Meter Customer Data Access by CSPs and Other Third Parties Technical Concerns; EDC Smart Meter Data



Summary Notes

DER Aggregation Interviews

Access by CSPs and Other Third Parties Legal Concerns; Utility Usage Data and Meter Access; Home Area Network (HAN) Protocols; Automatic Control; and Additional Concerns.

Docket No. A-2019-3009271, Final Order: <https://e9radar.link/90ec78>

Docket No. M-2021-3029018: <https://e9radar.link/35g>

Docket No. M-2021-3029018, Document No. 1733535 <https://e9radar.link/050b4b>



Summary Notes

DER Aggregation Interviews

WEST VIRGINIA

General History	West Virginia did not opt out of FERC 719. As the state's small demand aggregation market has developed, state authorities have not taken substantive steps to develop rules. West Virginia Public Service Commission (PSC) staff officials expressed overarching confidence in the ability of the state's utilities and PJM to facilitate the market without issues.
Jurisdiction	PSC staff officials expressed that state regulators would likely have jurisdiction over third party aggregators via their impact on utility operations and retail load. In practice, the PSC has not asserted jurisdiction, instead allowing utilities to operate within wholesale market protocols.
Dispute Resolution	No established process.
Registration and Licensing	No established process.
Dual Participation	No established process. PUC staff officials expressed confidence that utilities' management and oversight of their retail programs address double counting issues.
Role of Aggregators	No established rules.
Data Protection	No established policies specific to DR aggregation. In the early 2010s, PSC staff officials referenced cases when utilities were resistant to providing market participant data, but noted that that problem no longer exists. PSC staff officials noted that Ohio's practices around data sharing provided a template for West Virginia's utilities, which are both subsidiaries of Ohio-based holding companies.