

IURC Implementation re: FERC Order 2222
June 8, 2023, Roundtable Discussion at IGCS, Conference Room C

Discussion topic: IURC Interconnection Rule, 170 IAC 4-4.3

Attendees (alphabetical):

AES Indiana

- Shelby Leisz

Citizens Action Coalition of Indiana

- Jennifer Washburn

Duke Energy Indiana, LLC

- Nancy Connelly
- Andrew Wells

Indiana Michigan Power Company (AEP)

- Tammara Avant
- Michelle Bair
- Dona Seger-Lawson
- Denzil Welsh

Indiana Office of Utility Consumer
Counselor

- Scott Jones

Northern Indiana Public Service Company,
LLC

- David Austin
- M. Bryan Little

Southern Indiana Gas and Electric Company
(dba CenterPoint Energy Indiana South)

- Chris Akin
- Jeff Earl

Wabash Valley Power Alliance

- Maya Payne
- Lauren Schuettler
- Joan Soller

Indiana Utility Regulatory Commission
staff:

- Brad Borum
- Steve Davies
- Ben Gavelek
- Ryan Heater
- Stephanie Hodgkin
- Beth Heline
- Dave Johnston
- Dale Thomas

Acronyms used:

- 2222 – FERC Order 2222
- DER – distributed energy resource
- DR – demand response
- EDG – excess distributed generation (see Indian Code chapter 8-1-40)
- EE – energy efficiency
- IAC – Indiana Administrative Code
- IURC – Indiana Utility Regulatory Commission
- MISO – Mid-continent Independent System Operator
- PJM – PJM Interconnection LLC
- REMC – rural electric membership corporation – Indiana’s electric cooperatives
- RERRA – relevant electric retail regulatory authority; in Indiana, this is the IURC and can also be the boards of municipal utilities and of REMCs.
- RTO – regional transmission organization – Indiana has electric utilities in two RTOs – MISO and PJM
- SCADA - Supervisory Control and Data Acquisition

Introductions (9:30-9:35 a.m.):

Attendees signed in. Anyone wishing to participate or receive emails may request to be added to the email distribution list.

Discussion (9:35-10:30 a.m.):

Interconnection rule – headline notes – customer generator rule – demand side – level of review for DR – review of market participation and aggregation – complaint process – certification process – simplify for small DERs – new rule section for participation – operation and how to assure continued operation – or in different rule.

Changes should be limited to the 2222 subset of DER installed; so participants in non-2222 systems don't have additional requirements.

Wholesale market participation is different than the physical interconnection; there's another series of interactions for market participants; DR is also different; additional equipment needs for wholesale market participation; multiple aggregators for single premise; metering and telemetry needs for wholesale market participation; demand side; small generation – needs to be there for reliability purposed – working with aggregator.

Whether to have separate sections, modify existing section, or a totally separate rule; current customers should continue to be served under current rule continue; aggregator would be separate.

States managing interconnection process, while an overlay to participate in the wholesale market; and reliability of distribution system; decisions at RTO level; primary state function is to assure reliability of distribution system.

Not appropriate to put DR and EE in state interconnection rule, which is concerned with injecting facilities; how DERs act in parallel with grid in normal and abnormal conditions; haven't looked at how DERs behave in aggregate; look at customer generators on that feeder/transformer; but not 100 different DERS generating at a particular time of day.

Registration of DER owner as well as the aggregator; up to date information and equipment.

RERRA review of DER and aggregator on MISO/RTO side.

PJM – distribution utility has 60 days to review aggregator registration – whether 60 days is reasonable depends on number of DERS in aggregation and the number of aggregators

Traditional DER (not as FERC defined) can be part of a traditional interconnection study. Utilities don't know (yet?) how to model (100 generators across multiple feeders) and combine with DR.

Where does this fit within the interconnection rule? Separate clause? Or separate rule?

A DER can't get to the wholesale market unless the DER is running in parallel.

IURC needs to make aggregator determinations and/or rules.

43566 – IURC DR order re: DR participation in the wholesale market – go through electric utility and/or go through aggregator that goes through the electric utility – emergency DR in RTO markets.

DR is different than injection into the system.

What do utilities currently do for reliability analysis for DR coming onto the system? Real time data – so can see on SCADA in real time and can see the reduction. Separate analysis of customer generation, may depend on the customer. DR may not be in a study as part of interconnection process; doesn't appear to be enough to go to distribution and find out any effects on system; DR looks like off-peak period. Utility still has to plan for the peak. No forecasted interconnect ability to DR – much simpler analysis.

Responsibility for rules/certification/aggregation/ market – utility, DER aggregator, customer generator.

Aggregator analysis would be needed in interconnection rule.

Need analysis of both DER and aggregator, depending on location and size, to coordinate, as it depends on circuit involved.

Different technologies will have different characteristics; PJM has six different projects that qualify.

Both DER and aggregation need to be studied - study DER and then study aggregation.

It is hard to fit 2222 with interconnection rule.

Will we know whether a customer is/will participate in an aggregation at the time of interconnection?

Also need to deal with aggregation changing over time.

Two-step process may be needed – interconnection and then for participation in market/aggregation.

MISO RERRA reviews

Change in ownership in DER and participation in wholesale market and equipment changes?

Aggregation of different technology types – each have different properties and operate differently – different combinations offering different projects to wholesale markets; makes study and 60 days much more challenging.

What makes that complex and challenging? System is not set up for back flow. Interconnection rule accommodates that.

Timeline – IURC reasons; scale-able

Single node aggregation – commercial pricing node – single distribution circuit? No, there would be multiple feeders.

Multiple nodes – not yet – walk before you run – multiple transmission owners – gets very complex.

Interconnection rule; separate market rule; will the market rule need separate interconnection?

May need to have a meeting for distribution engineers.

Break (10:30-10:45 a.m.)

Discussion (10:45-11:45 a.m.):

Group walked through 170 IAC 4-4.3 by section.

Section 1 – definitions – may need to add DR; additional operational limits under “system emergency”; “telemetry”; “protocols”; reference PJM/MISO requirements.

Section 2 – applicability – not there yet – but will need to add if aggregation added

Section 3 – exemptions – may depend on public utility status of DERs and aggregators

Hold aggregators to certain standard of conduct, so do aggregators need to be public utilities; how would you remedy if aggregators are not public utilities; could be enforcement of the contracts; if can’t regulate the aggregator, you regulate the DER being aggregated.

DERAs are FERC jurisdictional; open question regarding state public utility.

FERC has defined what a DER is; probably not up to the IURC to determine; but it is up to Indiana on whether to allow dual participation in wholesale and retail programs

State business registration – required to register with IN Secretary of State

Section 4 – general interconnection provisions – create a new level for wholesale market participants; may be a place to connect wholesale market participation rule;

Section 5 – certification of customer-generator facilities – meter equipment; do they qualify and what requirements; data sharing; telemetry, etc.; do some of the technical requirements need to be added update; IEEE 1547- 2018 needs to be adopted (?) – separate topic/meeting with the engineers – not necessarily related to 2222 – market participants may need for ride through – still a number of inverter standards and option we would need to select – if want a higher standard for market participation, could be that in market participation rule;

Don't mess up the current EDG system or make added burdens; only add what's needed additional for aggregation and market participation.

Wholesale market participation, certification process, additional requirements and review to meet RTO requirements. RTO aggregation review may not match up with the interconnection review; you don't get to go to the aggregation process until you've settled the interconnection process.

It's a fair question – levels of review for aggregations.

Process of going from EDG (retail program) to aggregation; and process for going from aggregation to EDG; need to choose one or cooling off period between choosing; alternating back and forth; who pays for administration and business case. Could be restricted through the utility's tariff

Either retail or wholesale – at least, at first. Customer education regarding wholesale market and capacity obligations.

Size of the system - EDG limited to needs up to 1 MW; aggregator can now install more than customer needs; notify if change in ownership; expenses for settlements; upgrades paid by customer.

Operational side; complaints; scale-ability.

Interconnection rule will be foundational (may be with some updates) – for physical interconnection of individual customers. Wholesale market participation will require an additional rule, including operational requirements and complaint process.

Next Steps (11:45 a.m.-12:00 p.m.):

- Next roundtable discussion: July 13, 2023, 9:30 a.m. to 12:00 p.m., IGCS, Conference Room B;
 - Topic = wholesale market participation – proposed registration process, initial, modification workflow,
 - Review Jan 2022 MISO RERRA slide deck; does PJM have similar deck (DIR subcommittee);
 - Topic = public utility status in Indiana of DERs and DER aggregators selling into wholesale market;

- IURC staff will review whether a telephone call-in option can be made available.
- Possible future topic: DER data and the non-profit DER registry.
- Comments regarding this and future discussions may be submitted to URCCComments@urc.in.gov
- Future roundtable discussions:
 - August 16, 2023; 9:30 a.m. to 12:00 p.m.; Conference A
 - September 14, 2023; 1:30 p.m. to 4:00 p.m.; Conference A
 - October 12, 2023; 9:30 a.m. to 12:00 p.m.; Conference B
 - November 9, 2023; 9:30 a.m. to 12:00 p.m.; Conference B

Thanks to all for their interest and participation in this stakeholder process!