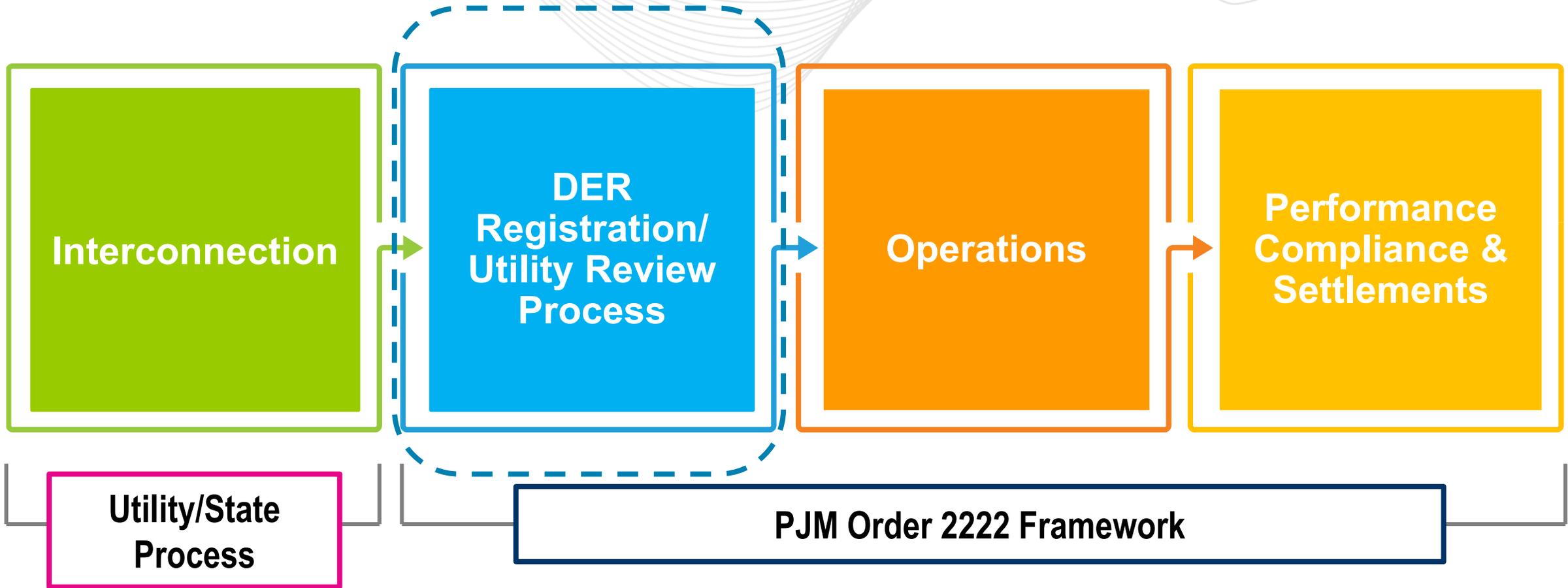


DERA Registration: Roles, Responsibilities, and Process

Danielle Croop
Market Design and Economics

DIRS
September 24, 2021



RERRA



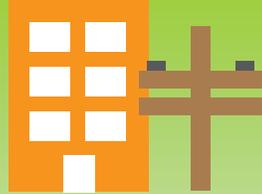
- Small utility opt-in evidence
- Large utility opt-out evidence for Demand Response
- Additional DER requirements, managed through Interconnection

Aggregator



- Responsible for complying with all PJM business rules
- Registers individual DER & provides all necessary data/info. for aggregation
- Signs Market Participation Agreement
- PJM Member & Participates in PJM Markets

EDC



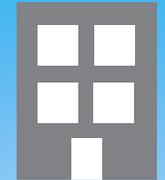
- Review certain DER data for accuracy
- Provide additional data for planning & market modeling
- Reliability review of aggregation

PJM



- Reviews DERA registration for completeness
- Establishes telemetry for DERA and verifies meter
- DERA Market modeling and readiness
- Approves/Denies registration
- Dispute resolution
- Signs market participation agreement

LSE



- Notified that LSE customers are included in registration



DER Aggregation Registration and Review Process (60 DAYS)

DER Interconnection process complete
*if required by state/local utility

DERA Registration Submitted - **aggregator**



PJM & EDC are notified of submission

Data Review

Data complete & no reliability review needed (fast track)

EDC Reliability Review

“Reliability Review Period”
- EDC to perform any necessary reliability studies for aggregation’s market participation
- EDC to perform any additional locational data requirements

PJM will approve/deny registration

Planned DER:
PJM-approved offer plan required prior to bidding into RPM auction. Will require Aggregator to complete registration prior to delivery year.

“Data Review Period”

- PJM reviews application for completeness and verifies markets for DERA participation
- EDC Reviews Information for accuracy
- Review application is eligible under RERRA requirements & Opt-in/out evidence
- Meter configs. reviewed by PJM & EDC
- EDC provides locational information
- EDC identifies additional reliability review/study, as needed

PJM EDC AGG

Additional items required prior to DERA Operations in PJM. These can be working in parallel/during registration process or after registration process.

- DERA <> PJM telemetry set up
- Market Gateway acct.
- Power Meter verification
- Market testing
- EMS modeling



Registration Data (Work in Progress)

Data	Notes	DERSP	EDC	PJM
Registration Start/End date		Submits	review	review
Registration Status		Submits	review	review
DER type	Distributed Gen (DG), DR, DRwDI (distribution injection), RBTMGwDI (retail BTMG where only the distribution injection will participate in wholesale market), EE			
Transmission Zone		Submits	approve/deny	review
EDC		Submits	approve/deny	review
LSE	load serving entity - work in progress, may only need for negative dec in energy market			
Market	DA/RT Energy, Capacity, SR, Regulation	Submits	review	approve/deny
Expected participation hours	Hours when DER is expected to participate - allows EDC to know when resource is expected to be in the market	Submits	review	review
PJM Telemetry setup	Reference to telemetry code for SCADA link	Submits	review	approve/deny
EDC account number	EDC specific reference, more than one DER or same type may be aggregated at same pnode on one registration	Submits	approve/deny	review
Physical address for DER		Submits	approve/deny	review
EDC Interval Meter	Indicate if EDC meter or other meter used for settlements	Submits	approve/deny	review
RERRA Evidence	Small EDC reference to RERRA that allows participation	Submits	approve/deny	review
Energy Pricing Point - pnode	Expect that PJM will create default based on zip code and EDC will review and update (focus on larger DER). One resource may be mapped to more than 1 pnode.	review	submits/updates - approve/deny	submits

Expect to leverage functionality similar to DR registrations (DR Hub)



Registration Data (Work in Progress)

Data	Notes	DERSP	EDC	PJM
Max Load (kW)	Max hourly load over prior 12 months	Submits	approve/deny	review
Max Injection (kW)	Max injection amount based on interconnection process	Submits	approve/deny	review
Max Market Eligibility	Maximum amount that will be offered in the market	Submits	review	review
Load Reduction Method	If DR or RBTMGwDI related then indicate load reduction capability (kw) for each load reduction capability (HVAC, Refrigeration, Generation, Lighting, Industrial Process, etc.)			
Generator Details	For each Generator indicate the technology (battery, solar, CT, etc.), nameplate capacity, inverter type, installation date, ride through capability enabled, voltage control enabled and other details.	Submits	review	review
EDC Interconnection ID	Reference to approved EDC interconnection	Submits	approve/deny	review
Retail Agreements	NEM, PURPA, etc.	Submits	approve/deny	review
Peak Load Contribution (PLC)	Used to determine capacity nomination for DR related DER	Submits	approve/deny	review
Loss Factor		Submits	approve/deny	review
EDC reliability issue	EDC provides input to PJM if DER should not be allowed to participate because it will create a reliability issues for Distribution System	review	submits	approve/deny

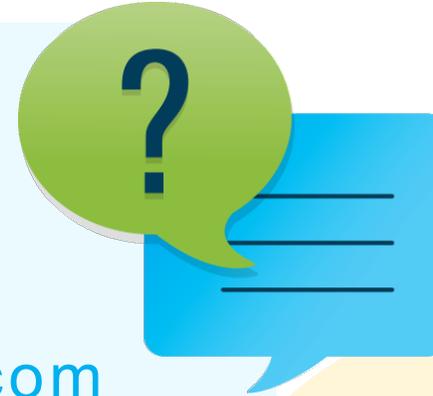
Expect to leverage functionality similar to DR registrations in DR Hub

Facilitator:
Scott Baker, scott.baker@pjm.com

Secretary:
Hamad Ahmed, hamad.ahmed@pjm.com

Presenter:
Danielle Croop,
danielle.croop@pjm.com

DERA Registration Process



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com