

Comparison of interconnection study and market participation agreement processes for wholesale DER

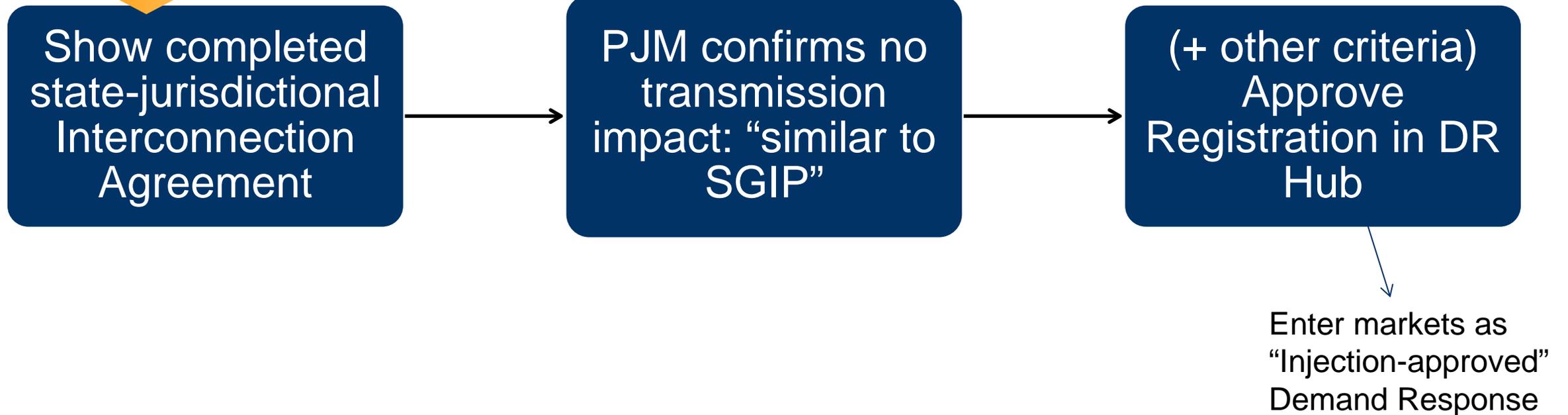
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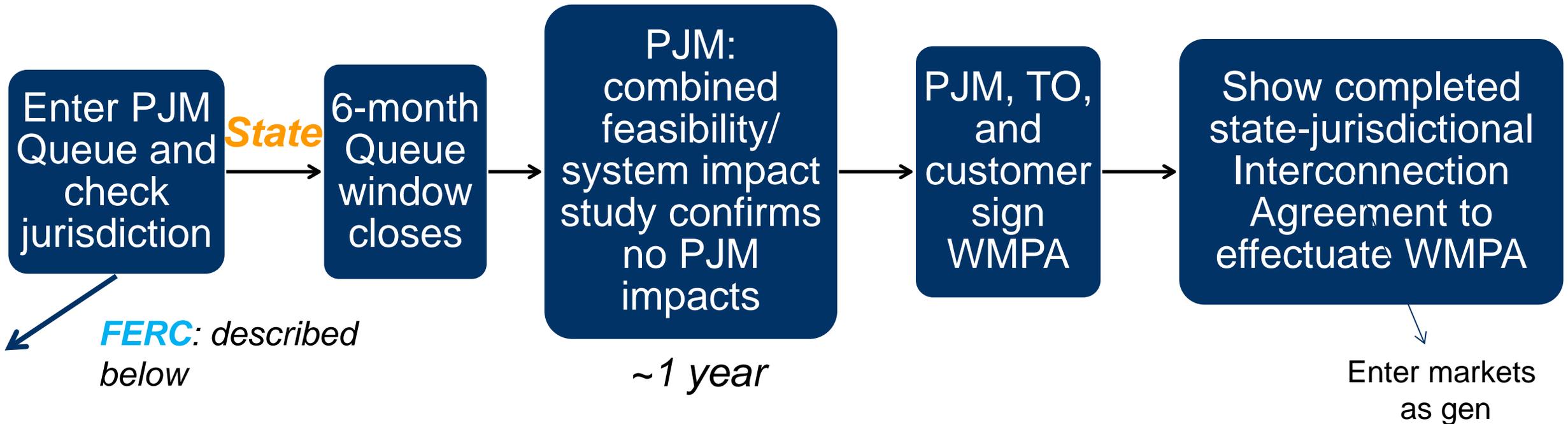
- These slides describe general processes for initiating wholesale market participation for a DER that meets these conditions:
 - ≤ 20 MW
 - Found to have no impact on PJM-modeled facilities
 - Interconnected to an electric distribution company that is affiliated with a PJM Transmission Owner
 - *E.g., PECO, Ohio Edison, JCPL, Atlantic City Electric, UGI, PPL, EKPC*
- Note: process for “non-TO-affiliated EDCs” (many munis and coops) will be covered in future meetings.
 - *e.g., ODEC, Vineland, Choptank, Sussex REC*

EDC interconnection study of distribution under state jurisdiction



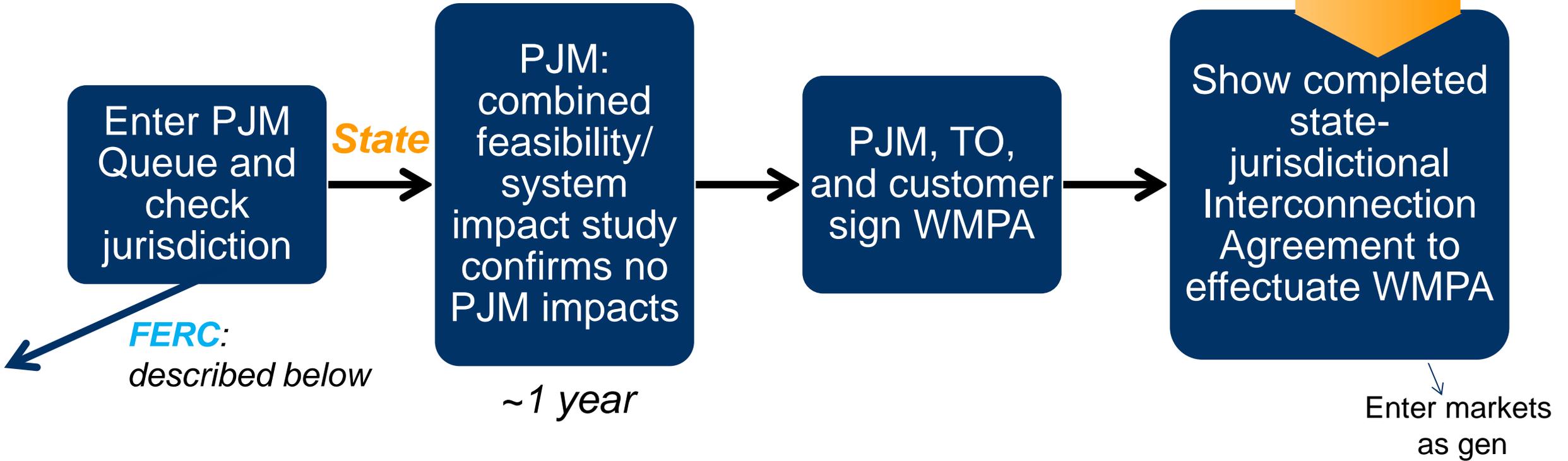
- PJM has filed with FERC to remove the “Alternate Queue” screening
 - Also to remove special rules for allocation of upgrade costs <\$5 million.
- The Alternate Queue (and <\$5million cost allocation rule) currently involve assessments that require 6-month queue window to be closed before proceeding.
- If FERC approves removal of the Alternate Queue (and <\$5million cost allocation rule), DER interconnection process may be slightly different.

EDC interconnection study of distribution under state jurisdiction



Applicable to DER: a) ≤ 20 MW; b) no impact on PJM-modeled facilities; c) Interconnected to a TO-affiliated EDC

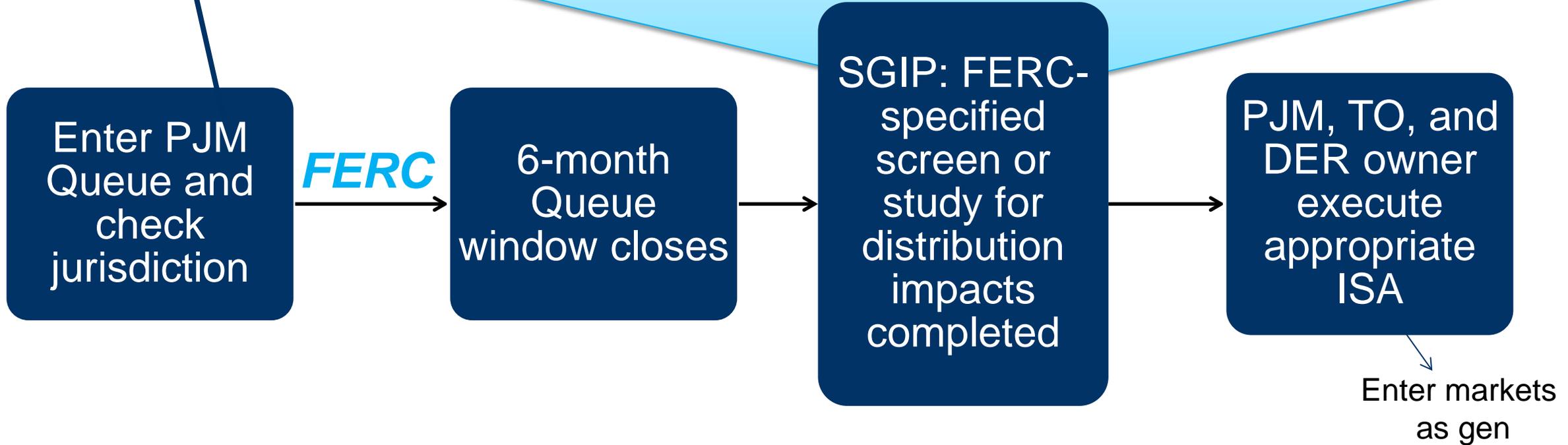
EDC interconnection study of distribution under state jurisdiction



Applicable to DER: a) ≤ 20 MW; b) no impact on PJM-modeled facilities; c) Interconnected to a TO-affiliated EDC

State:
prior slides

Attachment Y (Energy-only): $\leq 2\text{MW}$ Synchronous, $\leq 5\text{MW}$ inverter (screen)
Attachment BB (Energy-only): $\leq 10\text{kW}$ inverter (screen)
Attachment N: Capacity or if fail screens (study)



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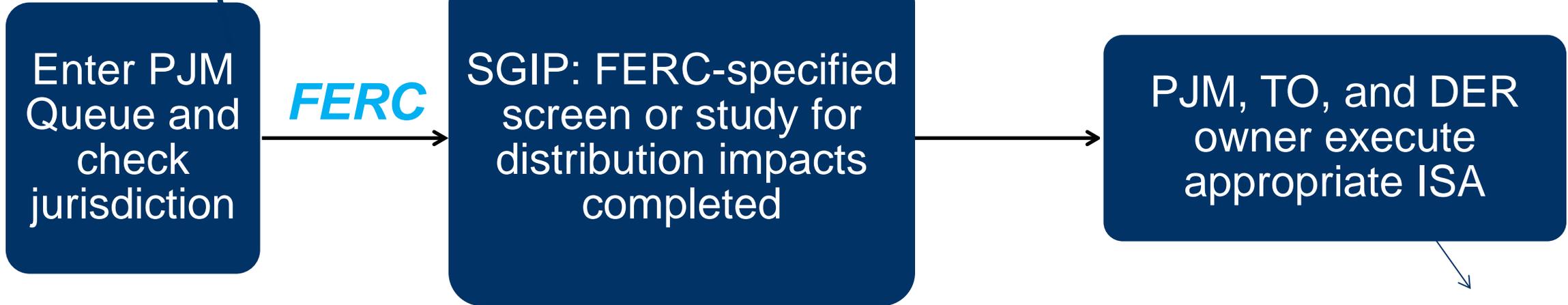


Post "Alt-Queue" ISA process for **new** DER: **FERC**

After removal of Alternate Queue and <\$5 million cost allocation rule

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Enter markets as gen

Applicable to DER: a) ≤ 20 MW; b) no impact on PJM-modeled facilities; c) Interconnected to a TO-affiliated EDC

EDC interconnection study under state jurisdiction

Note: PURPA may not apply to energy storage

Show old state-jurisdictional Interconnection Agreement* and PURPA status

Confirm adequacy of attachment facilities and metering etc.

Execute ISA (and ICSA if needed)

Enter markets as gen

* Interconnected Transmission Owner has completed a review of the impacts to the transmission system during the process of originally connecting the generation facility under the state process.

- Same as new DER
- State-jurisdictional interconnection: TO may require, under state jurisdiction, new Interconnection Agreement to cover change in terms, metering reconfiguration, etc.