



PJM Interconnection Process

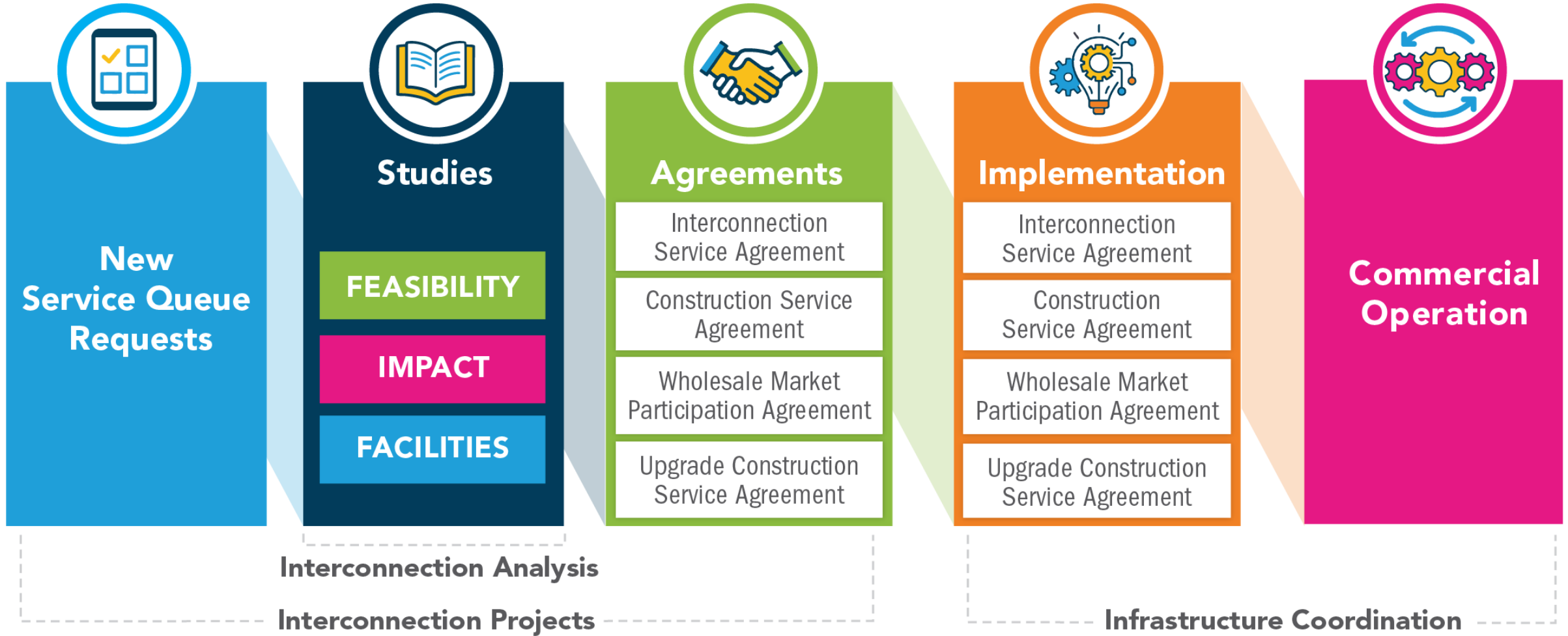
Jason Connell
Director, Infrastructure Planning
PJM Interconnection

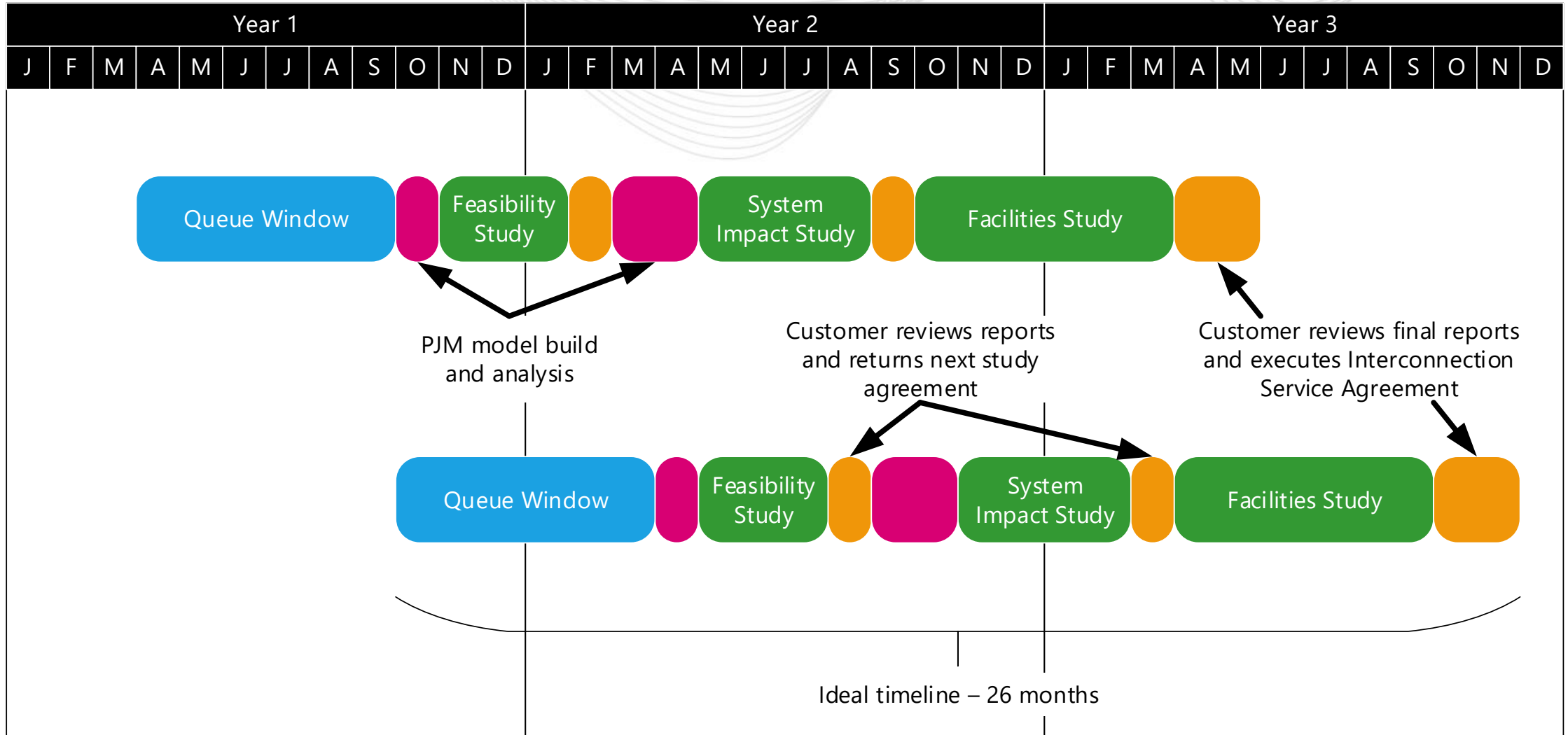
Pennsylvania Senate Joint Public Hearing
May 25, 2021

- Guide developers through the interconnection process on a timely basis while maintaining fair and equitable treatment between customers within the terms and conditions of the PJM Tariff.
- Facilitate interconnection of new generation by performing planning analyses and coordinating with the interconnecting transmission owners to ensure system reliability.

- PJM's interconnection process requires potential new generation to submit an interconnection request.
 - Requests are entered into a queue and treated on a first in, first out basis
 - Queue windows are 6 months long and all requests entered are studied collectively
 - PJM provides the costs to physically connect the generator to the transmission system and upgrade the transmission system to ensure the generator is deliverable to all PJM load

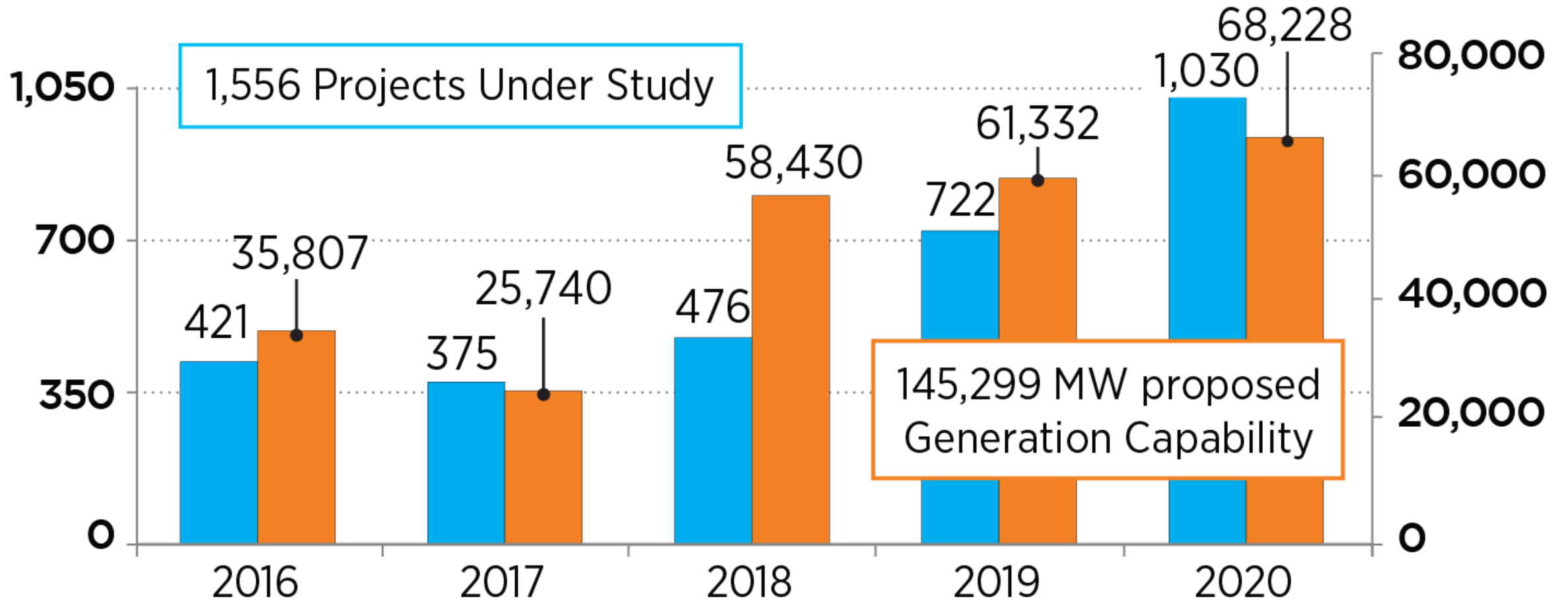
New Services Queue Process Overview





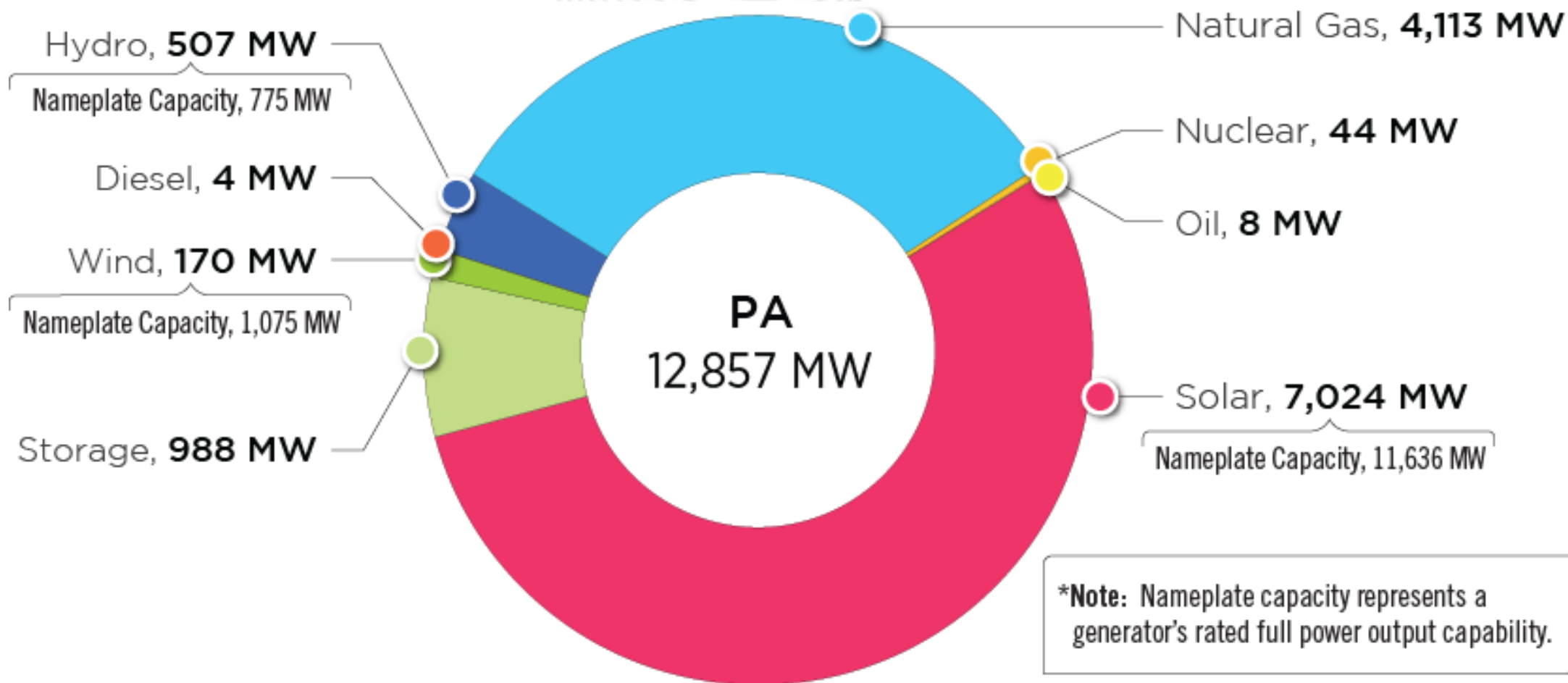
New Requests Submitted to PJM

Capacity (MW)



Pennsylvania – Queued Capacity (MW) by Fuel Type

(Requested CIRs – as of Dec. 31, 2020)



Pennsylvania – Progression History of Interconnection Requests



Projects withdrawn after final agreement

		Nameplate Capacity
56	Interconnection Service Agreements	7,836 MW
49	Wholesale Market Participation Agreements	423 MW
		6,049 MW

Percentage of planned capacity and projects that have reached commercial operation	18%	24%
	Requested capacity megawatts	Requested projects

This graphic shows the final state of generation submitted to the PJM queue that completed the study phase as of Dec. 31, 2020, meaning the generation reached in-service operation, began construction, or was suspended or withdrawn. It does not include projects considered active in the queue as of Dec. 31, 2020.

Presenters:

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Interconnection Process Overview



Member Hotline

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(866) 400 – 8980

custsvc@pjm.com

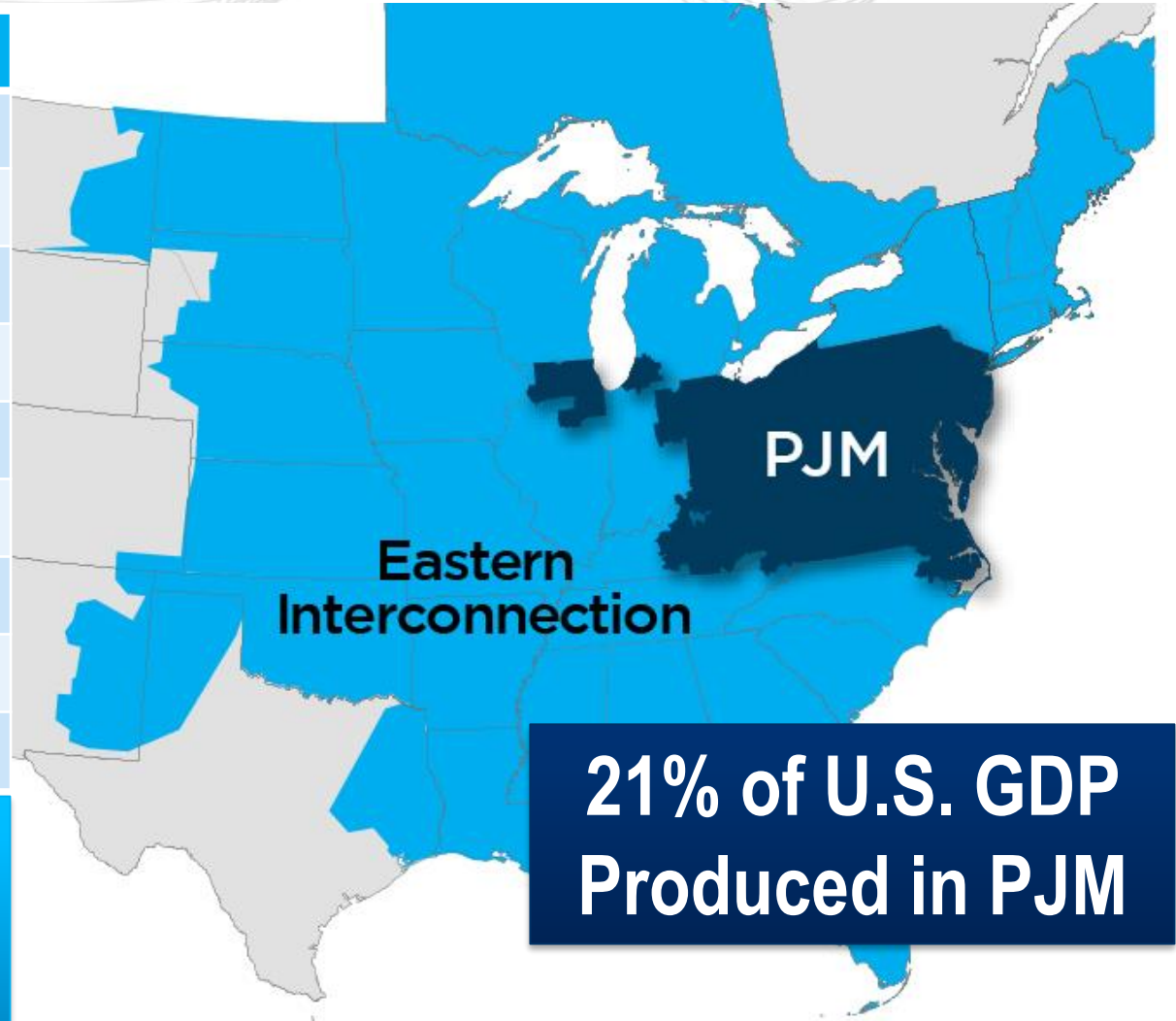
Appendix

- An independent entity that is responsible for:
 - Operating competitive wholesale electricity markets
 - Administering transmission tariff
 - Safe and reliable operation of regional power grid
 - Ensuring competitive open access to transmission where no member or member group has undue influence
- An RTO owns no transmission or generation assets and has no financial interest in the wholesale market or in any of the market participants

Key Statistics

Member companies	1,040+
Millions of people served	65
Peak load in megawatts	165,563
Megawatts of generating capacity	185,378
Miles of transmission lines	85,103
2019 gigawatt hours of annual energy	757,284
Generation sources	1,424
Square miles of territory	369,089
States served	13 + DC

- 26.4% of generation in Eastern Interconnection
- 25.4% of load in Eastern Interconnection
- 20% of transmission assets in Eastern Interconnection



As of 2/2021

- **Existing Capacity:** Natural gas represents approximately 44 percent of the total installed capacity in the Pennsylvania service territory while coal represents approximately 21.3 percent and nuclear 19.4 percent. In PJM natural gas and coal are 43.4 and 27.5 percent of total installed capacity, while nuclear represents 17.7 percent.
- **Interconnection Requests:** Solar represents 54.6 percent of new interconnection requests in Pennsylvania, while natural gas represents approximately 32 percent of new requests.