

ISAC Assumptions in 2025 RTEP

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Presented to: ISAC

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- ISAC Policy Workbook Assumptions to inform a sensitivity in the 2025 RTEP
 - Sensitivity can be used to assess differences from base case
 - Sensitivity can be used to assess the durability projects under a different condition
 - Assumptions are not intended to be used to identify needs to be solved in 2025 RTEP
- Policy-driven generator deactivations represent the best candidate for this in near-term (5-years) and perhaps mid-term (8-years) planning.
 - Other policy assumptions make sense under long-term planning
 - Policies related to new supply additions, in the near-term, must already be in the queue
 - Demand-related policies are generally captured in the load forecast already

Attachment B - Regional Transmission Expansion Plan—Scope and Procedure

The purpose of the Regional Transmission Expansion Plan (RTEP) is to develop plans which will assure reliability and meet the demands for firm transmission service in the PJM Region as described in Schedule 6 of the Operating Agreement.

B.3 Procedure <i>RTEP General Assumptions</i>	“When the PJM load in the RTEP model exceeds the sum of the available in-service generation plus generation with an executed ISA, PJM will model new generation to accommodate additional load growth by including queued generation that has received an Impact Study.”
B.4 Scenario Planning <i>Procedure General Sensitivities</i>	“When the PJM load in the RTEP model exceeds the sum of the available in-service generation plus generation with an executed ISA, PJM will model new generation to accommodate additional load growth by including queued generation that has received an Impact Study. This newly added generation could affect the load deliverability results either by advancing or mitigating limits. Generation sensitivities may be examined as appropriate to add information regarding the impacts of any such generators with less certain in-service dates. In addition, in areas that are experiencing load deliverability issues, sensitivities to the mitigating effects of new local generation may also be quantified.”

PJM Manual 14-B

- The current sensitivity – with 2025 load growth, announced deactivations and ISAC assumptions – would exceed all in-service generation and generation with an ISA/GIA.
- This requires selecting generation presently in the Impact Study (or “Phase 3”) phase and perhaps beyond.
- **This will require additional assumptions, informed by ISAC, on arriving at this new supply for the study**
- Coming to ISAC with this now because the final 2025 Load Forecast revised upward by 16GW of more demand in 2030 vis-à-vis the 2024 Load Forecast projection for 2030.

Year of Deactivation	Projected Deactivations (MW)
2030	6,762
2029	156
2028	2,618
2027	1,054
2025	331
Total	10,921

ISAC requested PJM consider the retirement effects of the following:

- Illinois Climate and Equitable Jobs Act;
- New Jersey Greenhouse Gas Regulation;
- Virginia Clean Economy Act; and,
- Publicly announced private commitments and approved IRPs

EPA Regulations*	N/A	CCR, ELG, CSAPR
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* Megawatts identified in EPA regulations are those generators only subject to EPA regulations and not otherwise subject to the above state policies. These were not submitted in the ISAC assumptions and are noted here for awareness of their non-treatment.

	2024	2024 Actual	2025	2026	2027	2028	2029	2030
PJM RTO - 2024 LF	151,247	--	153,493	156,803	159,859	162,972	165,681	167,873
PJM RTO - 2025 LF	--	152,256	154,144	158,937	164,186	169,981	176,094	183,883
Differential in Y-o-Y Load Forecasts	--	--	651	2,134	4,327	7,009	10,413	16,010
Annual Growth from 2024 Actual	--	--	1,888	6,681	11,930	17,725	23,838	31,627

- The 2024 Final Load Forecast predicted PJM's 2030 peak summer demand to be 167,873 MW
- The 2025 Final Load Forecast predicts PJM's 2030 peak summer demand to be **183,883** MW
- This peak represents an increase in demand of **31,627** MW from 2024's actual peak of 152,256 MW

Gigawatt	2024	2024 Actual	2025	2026	2027	2028	2029	2030
PJM RTO - 2024 LF	151	--	153	157	160	163	166	168
PJM RTO - 2025 LF	--	152	154	159	164	170	176	184
Y-o-Y Load Forecast Change	--	--	1	2	4	7	10	16
Annual Growth from 2024 Actual	--	--	2	7	12	18	24	32
Existing Installed CIRs	--	180	180	180	180	180	180	180
Actual/Announced Deactivations	--	1	3	0	0	-	2	-
ISAC Deactivation Assumptions	--	-	0	-	1	3	0	7
Scheduled Installed CIRs Post-Deactivations	--	179	177	176	175	172	170	163
System-wide eFORd (5%)	--	170	168	167	166	163	161	154
Net Position	--	18	14	8	2	(7)	(15)	(30)

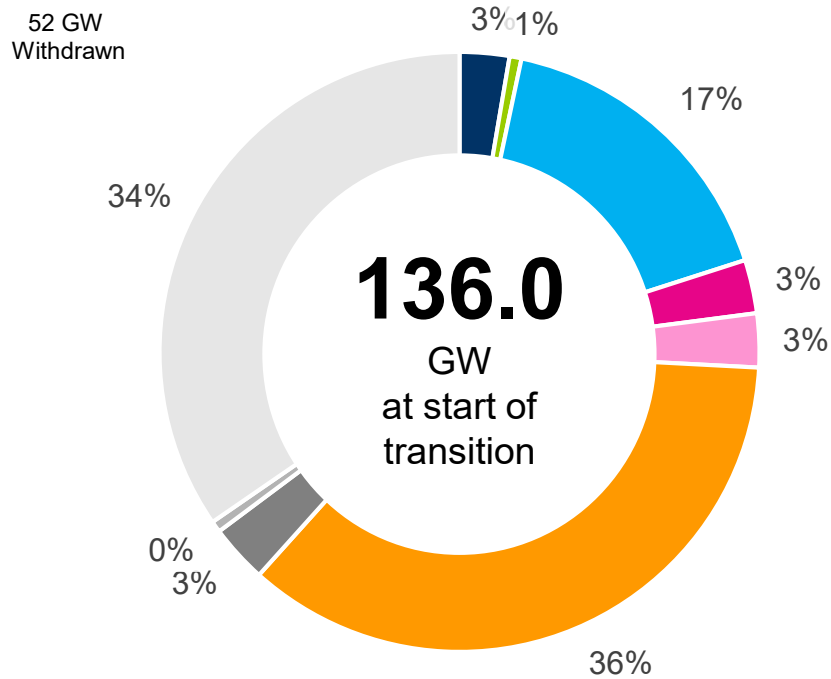
Notes:

1. This does not include new supply
2. Values are rounded to gigawatts

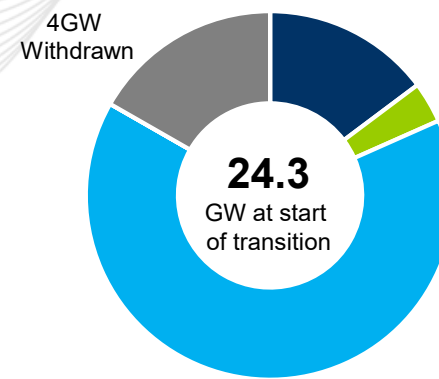
Arriving at Supply

New Entry - All Transition Progress (MW CIR)

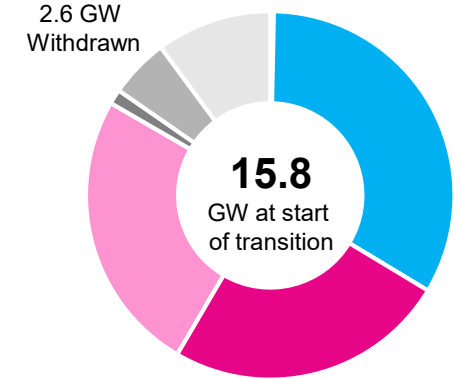
All Clusters



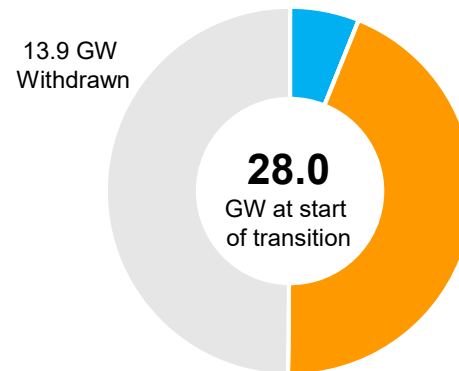
Serial Process



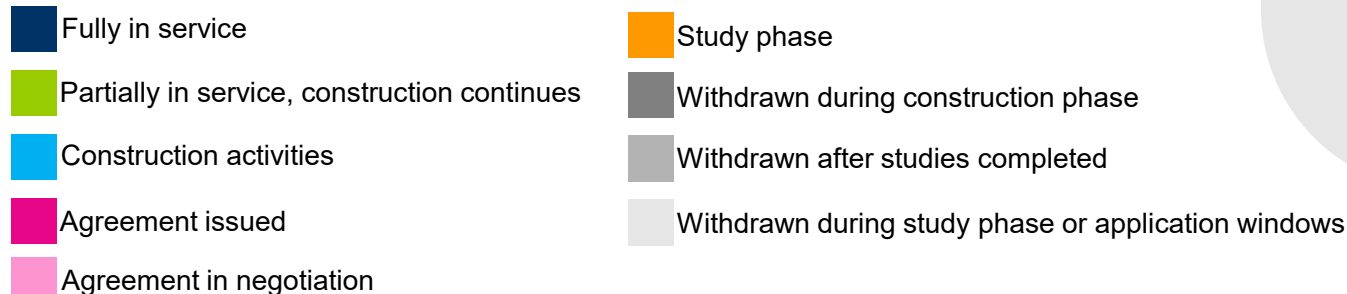
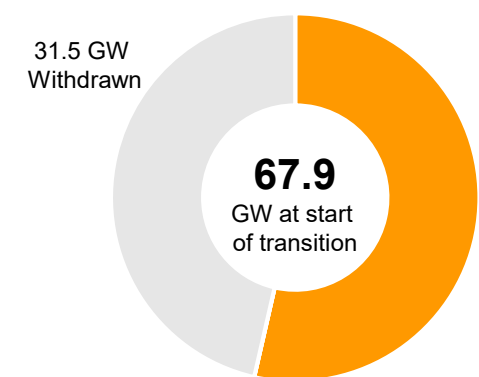
Fast Lane



TC1



TC2



1. **Specific generator new entry:** PJM will need queue assumptions to balance its supply-demand net position. PJM will need to arrive and which specific projects will be assumed to come online in order to build the ISAC Assumption model. Options can include:
 - a. Provide PJM a specific list of projects
 - b. Identify some threshold such as fuel type, location and/or size, new vs uprate, acquired siting permits
 - c. Ask PJM to arrive at assumptions (e.g., Manual 14B)
 - d. In addition to above, ask to include RRI impact, if applicable

- Suggest ISAC deliberate over this slide deck
- PJM is available for further conversations
- Offer PJM some feedback on March 1