

Large Load Pathway to Interconnection, BYONG, Curtailment, and PJM Connect and Manage Initial Conceptual Thoughts

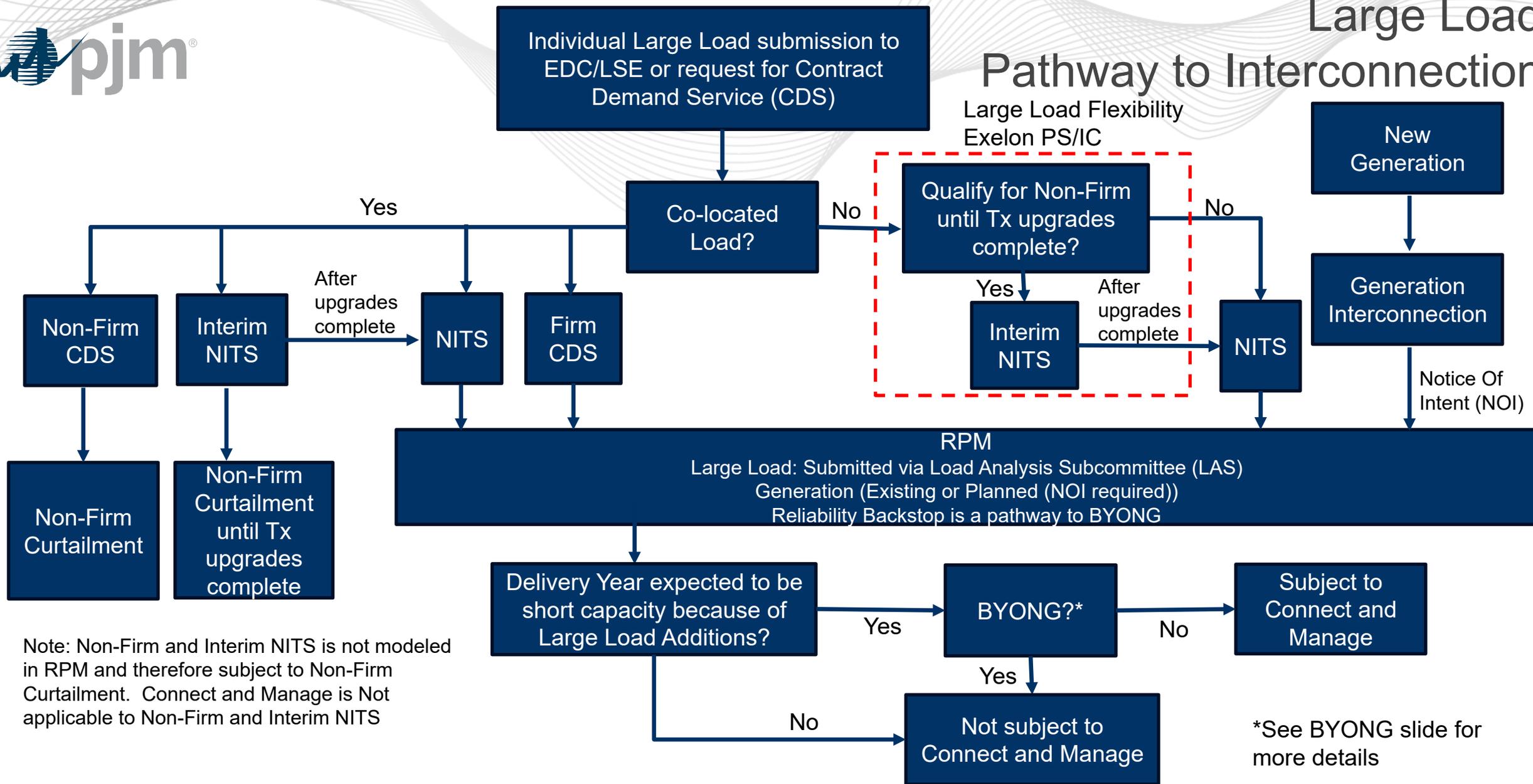
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Connect and Manage Senior Task Force (CAMSTF)

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Pathway to Interconnection



Note: Non-Firm and Interim NITS is not modeled in RPM and therefore subject to Non-Firm Curtailment. Connect and Manage is Not applicable to Non-Firm and Interim NITS

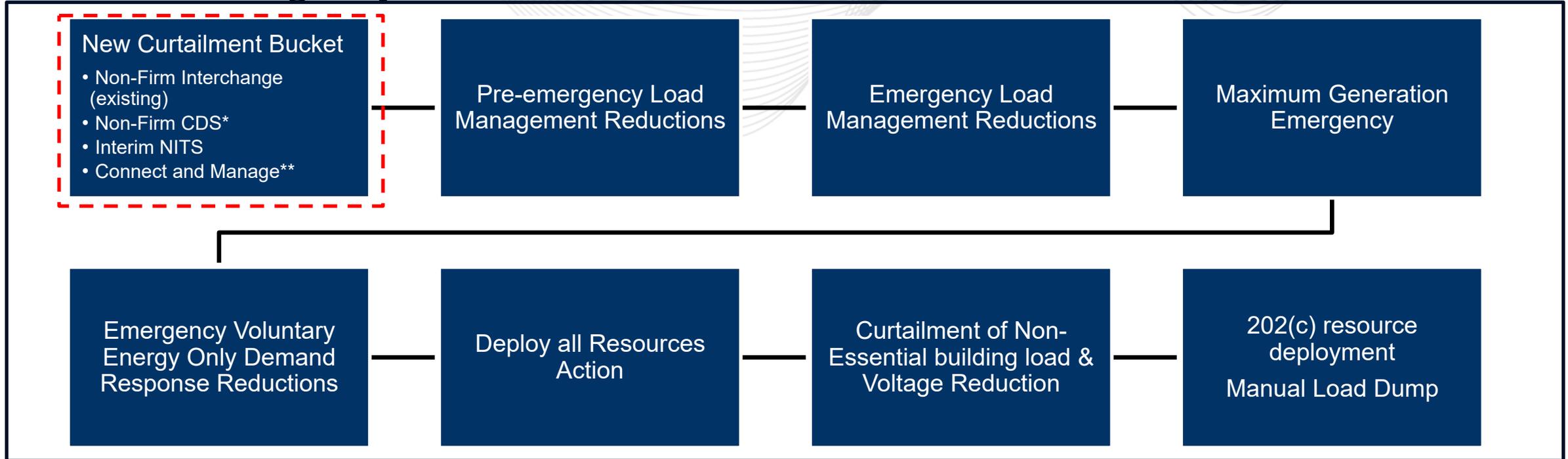
*See BYONG slide for more details

BYONG / Connect and Manage Load Exemption

Definition BYONG	<p>Bring Your Own New Generation is exempt from Connect and Manage. BYONG is New and Incremental PJM Capacity Resources (procured bilaterally or through Reliability Backstop and reflected in RPM) including New Demand Response (Pre-emergency and Emergency) that was not included in the prior DY auction.</p>
UCAP (further review required)	<p>Initial eligibility: BYONG UCAP must be \geq XX% Large Load (FPR% of Load) for initial Delivery year. Excess may be used for additional and/or future load. Proof of use of excess supply and assignment will be required. (The requirement for an additional XX% is to cover any future changes in annual ELCC updates).</p> <p>Maintaining eligibility: PJM seeks additional feedback on this concept</p> <p>Reductions in UCAP after initial eligibility associated with a removal of capacity status or deactivation within the first five years may result in disqualification, reduction, or requirement for additional BYONG.</p> <p>Reductions in UCAP associated with annual updates to ELCC accreditation does not impact BYONG status.</p>
Assignment*	<p>BYONG does not include UCAP from existing capacity resources (cleared capacity effective prior to 6/1/27) and BYONG cannot later be transferred to a different new Large Load unless the original Large Load no longer exists. BYONG may be used for a portfolio of Large Loads.</p>
Timing	<p>Large Load that interconnects prior to BYONG will be Connect and Manage until the BYONG is online.</p>
Verification	<p>Large Load must provide proof of BYONG (contract, etc.) to EDC/TO. The EDC/TO will provide this proof to PJM so that PJM can verify.</p> <p>After verification, PJM will adjust the Connect & Manage allocation to the EDC/TO and the EDC/TO can exclude from their Connect and Manage assignments. Timing TBD.</p> <p>BYONG and Large Load can be in different LDAs. Existing deliverability requirements are applicable.</p>

*Collaboration with local EDC/TO will be necessary to determine final Connect and Manage assignments.

Emergency Actions



	Product	Priority
New Curtailment Bucket	Non-Firm Interchange (existing)	Curtailed first (lowest priority)
	Non-Firm CDS (new)	Curtailed second
	Interim NITS (new)	Curtailed third
	Connect and Manage (new)*	Curtailed last (highest priority)

Note: Actual priority order may be dependent on local constraints and actual operational conditions

* Non-Firm CDS is only used during times when the co-located generator is offline or outputting at a level below the Non-Firm CDS load.

**Firm CDS and NITS customers may be subject to curtailment in the new bucket under the Connect and Manage program as needed



PJM Connect and Manage Initial Conceptual Thoughts

In the event of supply shortages given large loads that do not elect BYONG or DR, PJM would require sufficient load to be Connect and Manage

Connect and Manage Load:

- No impact to RTEP or RPM (all load included)
- May be curtailed during pre-emergency conditions before capacity backed DR.
- Transitional for Delivery Years where there is a shortage of available capacity to satisfy the Installed Reserve Margin (IRM).

TO will be responsible for ensuring Load can be removed from the system, consistent with the Operational Requirements set forth.



Summary: Trigger for Connect and Manage Load

When will Connect and Manage Load be needed?

Connect and Manage Load will only be necessary if there is supply shortage associated with Large Load additions that do not BYONG. PJM expects that there will be a transitional period where this will be necessary. Connect and Manage Load will not be utilized for organic load growth or existing Large Loads in-service by June 1, 2027. Connect and Manage Load is not available if there is no reliability requirement shortage.

Trigger for Shortage

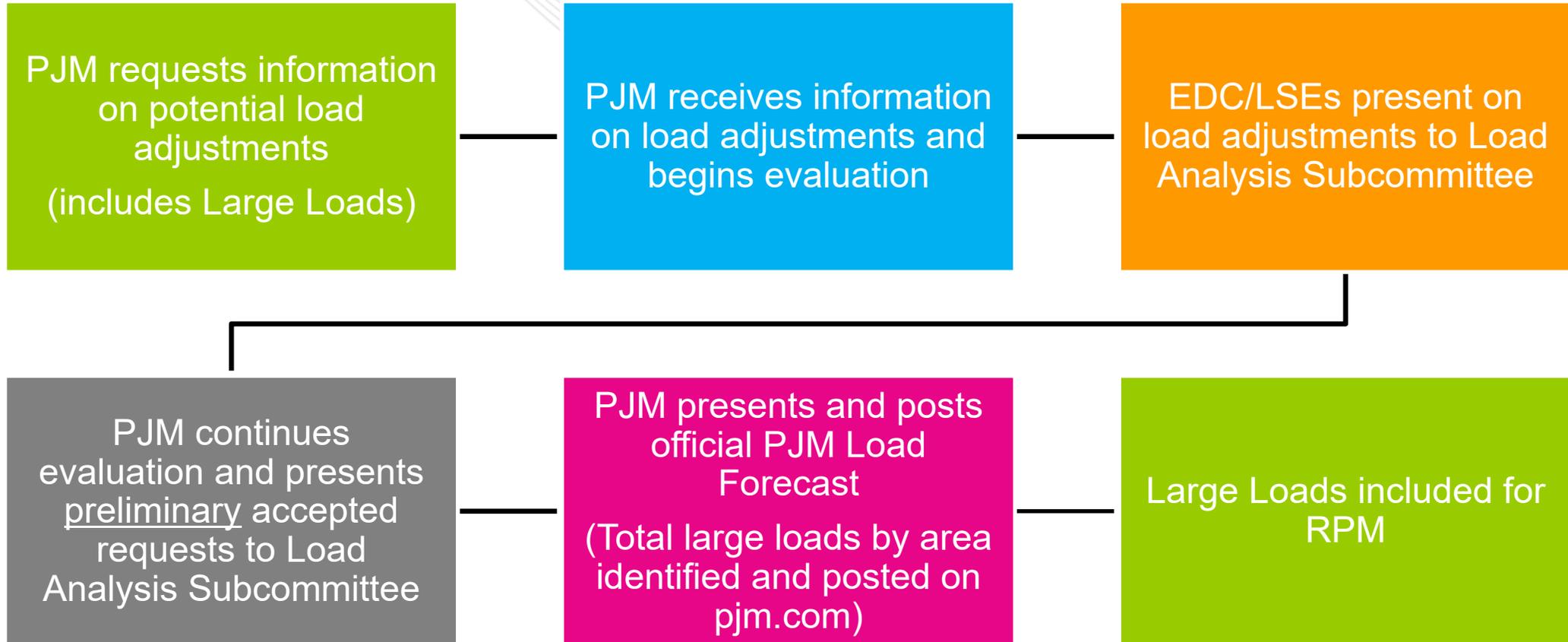
PJM Supply < RTO Reliability Requirement

Must be associated with Large Load Additions.

If removal of Large Loads that do not BYONG from forecast results in shortage then Connect and Manage will not be triggered for non-Large Loads.

PJM Supply includes all PJM capacity resources including firm imports





2

Identification of Initial BYONG

Large Load coordinates with TO/EDC to identify Large Loads that Bring Your Own New Generation (BYONG)



TO/EDC



Large Load



TO/EDC notifies PJM of location and quantity of estimated preliminary BYONG



PJM verifies estimated preliminary BYONG



Preliminary BYONG is used as input to determine the preliminary expected RTO shortage associated with Large Loads. Final BYONG will be determined in step 4.

Determination of estimated shortage for RPM delivery year

Total estimated shortage associated with Large Loads = min (RTO Shortage, Large loads)

- RTO shortage = RTO Reliability Requirement - RPM supply; If <0 then RTO shortage = 0
- Large Loads include all large loads in the Load Forecast (excluding estimated BYONG (step 2) and large loads in-service by 1/1/27)

Example 1 :

RTO Reliability Requirement = 145,500 MWs

RPM Supply = 143,000 MWs

RTO Shortage = $(145,500 - 143,000) = 2,500$ MWs

Large Loads = 500 MWs

Total estimated shortage = $\min(2,500, 500) = 500$ MWs

Example 2 :

RTO Reliability Requirement = 145,500 MWs

RPM Supply = 143,000 MWs

RTO Shortage = $(145,500 - 143,000) = 2,500$ MWs

Large Loads = 3000 MWs

Total estimated shortage = $\min(2,500, 3,000) = 2,500$ MWs

Determination of Final shortage for RPM delivery year

Final estimated shortage associated with Large Loads = min (Final RTO Shortage, Final in-service Large Loads)

- RTO shortage = RTO Final Reliability Requirement - Final supply; If <0 then RTO shortage = 0 and NO Connect and Manage necessary
- Final in-service Large Loads = Large Loads that are in-service that did not BYONG (Repeat Step 2 for final values)
- Determination made pre-delivery year

Example 1 :

Final RTO Reliability Requirement = 145,500 MWs
 Final Supply = 144,000 MWs
 Final RTO Shortage = $(145,500 - 144,000) = 1,500$ MWs

Final in-service large loads = 500 MWs

Total estimated shortage = $\min(1,500, 500) = 500$ MWs

Example 2 :

RTO Reliability Requirement = 145,500 MWs
 Final Supply = 144,000 MWs
 Final RTO Shortage = $(145,500 - 144,000) = 1,500$ MWs

Final in-service large loads = 3000 MWs

Total estimated shortage = $\min(1,500, 3,000) = 1,500$ MWs

Determination of Area Assignments

Final Area eligible Connect and Manage Load = Area final in-service large loads

Example 1 :

Final in-service large loads* = 500 MWs

Total estimated shortage = 500 MWs

Area eligible Large Loads

Area 1: 200 MWs

Area 2: 100 MWs

Area 3: 50 MWs

Area 4: 150 MWs

Example 2 :

Final in-service large loads* = 3000 MWs

Total estimated shortage = 1,500 MWs

Area eligible Large Loads

Area 1: 700 MWs

Area 2: 800 MWs

Area 3: 900 MWs

Area 4: 600 MWs

*Excludes BYONG

Note: Total eligible Connect and Manage is not limited by total shortage; all in-service Large Loads are eligible for Connect & Manage that did not BYONG.

Pre-delivery year: TO/EDC Eligibility Assignment of Connect and Manage to Individual Large Loads

Example 1 (cont.): Area 1 eligibility assignment (200 MWs)

Pre-Delivery Year

TO/EDC determines Individual Large Load eligible participation for Connect and Manage Load



TO/EDC



Large Load

PJM does not identify the actual Large Loads who are assigned Connect and Manage

Large Load (Area 1)	Size	BYONG?	C&M eligibility assignment
LL1	150 MWs	No	150
LL2	50 MWs	No	50
LL3	200 MWs	Yes	0
LL4	50 MWs	Yes	0

Example 2 (cont.): Area 1 eligibility assignment (700 MWs)

Large Load (Area 1)	Size	BYONG?	C&M eligibility assignment
LL1	200 MWs	No	200
LL2	100 MWs	No	100
LL3	600 MWs	200 MWs only	400
LL4	500 MWs	Yes	0

- PJM, Transmission Owner, EDC, and Individual Large Load coordinate to ensure readiness before delivery year.
 - Modeling
 - Metering and Telemetry to provide Operations with visibility and to ensure Connect & Manage can be quantified in real-time
 - Operating Procedures
- PJM to provide advance notification of estimated assignment of Connect & Manage for each Area.
 - Maximum assignment limited to the eligible Connect and Manage
 - Provides opportunity for TO/EDC to coordinate with Large Loads

Additional Details to be determined

Connect and Manage Load will be considered PJM Network Load for all transmission-related and settlement purposes.

- Connect and Manage Load receives the benefit of being served from the transmission system without having to schedule transmission service.
- Connect and Manage Load is in planning studies and network upgrades are identified to reliably serve the load long term.

Connect and Manage Load that is curtailed during peak days used in the determination of Network Service Peak Loads (NSPL) will be added back for the NSPL determinations.



Connect and Manage Load– Expected Responsibilities

Action

Identification of BYONG and new DR

TO/EDC/LL/PJM

RPM / Pre-DY

Reliability check (RR vs. Supply)

PJM

RPM / Pre-DY

Identification of final quantity and area eligible
Connect and Manage Load

PJM

Pre-DY

Individual determinations of Connect and Manage

TO/EDC

Pre-DY

Operational procedures

TO/PJM/LL

Pre-DY

Real-Time Curtailment if necessary

PJM/TO/LL

Real-time

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PJM Connect and Manage Issue Charge



Member Hotline

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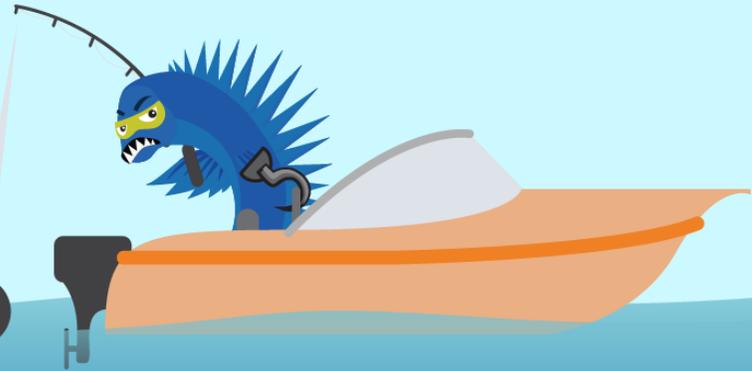
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