Executive Summary

The Board analyzed various proposals for service during periods of insufficient resource adequacy through a lens that begins first and foremost with the organization's mandate to maintain grid reliability. As the results of the 2027/2028 and 2028/2029 Base Residual Auctions (BRAs) demonstrate, the regional transmission organization (RTO) continues to clear short of its Reliability Requirement, and the shortfall is increasing. Projections for continued Large Load additions are up to 70 GW by 2038. The Board continues to view these results as a signal that current trends will continue.

The PJM proposal, Interim Resource Adequacy Service, or IRAS, previously referred to as Connect and Manage, is an important first step in realizing an operational tool (reduction of load) that will facilitate accelerated Large Load growth while preserving system reliability during periods of capacity shortage. Under this framework, Large Loads can interconnect without bringing their own new capacity. However, they must reduce their load or switch to on-site backup resources under specific, limited circumstances.

The Board integrated stakeholder feedback and the need for reliability to shape the key design concepts, which will be translated into governing agreement language for submission to the Commission.

Key Design Concept	Description
Large Load Registry	PJM will maintain a central registry of all applicable Large Loads, including a definition of the term Large Load.
Participation Rules	Electric Distributors (EDs) and Transmission Owners (TOs) must implement Interim Resource Adequacy Service for new Large Loads that do not Bring Your Own New Capacity (BYONC) or have not received credit for Reliability Backstop Procurement (RBP) UCAP megawatt for the delivery year and cannot be served under the 1-in-10 reliability standard. Load Serving Entities (LSEs) will need to designate any BYONC supply associated with new Large Loads for the duration of time required to maintain BYONC status.
Emergency Procedures	Interim Resource Adequacy Service load reduction will trigger prior to Pre-Emergency Load Management actions. The TO/ED, in coordination with the state, will coordinate with the individual customers that will be subject to Interim Resource Adequacy Service for a subject delivery year.
RPM Modeling	Incremental new Large Loads relative to the forecast utilized for the 2028/2029 BRA will be excluded from the forecast used in future RPM auctions for the 2029/2030 Delivery Year and beyond unless and until there are new supply resources offered into an RPM auction in sufficient quantity to cover the new Large Load.
Credits	EDs will implement a credit mechanism for Interim Resource Adequacy Service, coordinated with their respective state regulatory authorities.

PJM Interim Resource Adequacy Service Detailed Proposal

Large Load Registry

The need for a Large Load Registry was supported universally across all PJM stakeholders. PJM agrees with this need and proposes maintaining a formal Large Load Registry that will be available to states, Transmission Owners (TOs), Electric Distributors (EDs), Load Serving Entities (LSEs), the IMM and federal regulators subject to appropriate data protection safeguards (including protective orders, where necessary). This registry will provide the

critical data transparency needed to establish load reduction priorities for retail customers. The registry will be updated periodically, and aggregate data will also be provided on PJM.com where possible and in a manner consistent with existing confidentiality protections in the PJM governing agreements.

PJM's enhanced data collection will also help the states and industry partners assess whether companies are, as the Ratepayer Protection Pledge commits, "build[ing], bring[ing], or buy[ing] the new generation resources and electricity needed to satisfy their new energy demands" and "add[ing] more capacity that serves the broader public by increasing supply" in order to protect "Americans from higher prices."

Registration Requirements

1. Large Loads are required to register via appropriate entities, such as their ED.
2. Large Loads are defined as end-use customer load that has a cumulative peak load quantity ≥ 50 MW at a single site behind one or more delivery points/points of interconnection within a one-mile radius. All Large Load megawatts not in service by June 1, 2027, are considered new Large Loads and are counted in the quantity determination for Interim Resource Adequacy Service offset by BYONC. If a load increases its peak demand after June 1, 2027, the incremental load added after June 1, 2027, would be considered new Large Load megawatt. This includes incremental load that causes an existing load to meet the Large Load definition when it had not previously met this threshold (e.g., if a 30 MW load ramps to become a 60 MW load, then the 30 MW of new load would be considered new Large Load megawatt).
3. Registration, including final quantity, is required before the in-service date of new Large Load.
4. Each site must be registered before determination of the final PJM Load Forecast for the effective RPM Auction (BRA or IA) for which the new Large Load is in service.
5. Existing Large Loads in service prior to June 1, 2027, must register by March 1, 2027.
6. Large Loads with an existing contract (BYONC) for a future delivery year can be listed in the registry but will be subject to Interim Resource Adequacy Service until the capacity resource is in service.

Registration Content

1. Eligible Customer/Network Customer for Large Load (typically, the ED and LSE)
2. Description of Large Load
3. Location(s) (Control Zone, ED zone/area[1])
4. In-service date for each increment of load
5. Delivery point/Point(s) of Interconnection (include all if more than one)
6. Load quantity (MW) and ramp schedule, if applicable
7. BYONC quantity (MW) and ramp schedule, if applicable
8. Peak Shaving Adjustment value pursuant to a qualifying state program (e.g. recently passed New Jersey legislation)
9. Allocated RBP UCAP megawatt quantity (MW)
10. Backup generation (MW) and fuel type

[1] A zone/area is an area within a zone for which the relevant ED specifies a separate Obligation Peak Load megawatt value. A zone/area is a service area of an ED that is a separately identifiable, geographic area bounded by wholesale metering.

11. EMS B1/B2/B3 name (TO/ED/LSE)
12. Additional details and contents as necessary

Participation Rules

The Board believes that while PJM will continue to seek to maintain the 1-in-10 reliability standard for all interconnected load, new Large Loads that do not bring sufficient supply resources to the system to cover their requirements should not negatively impact reliability for other load. Therefore, the Board is proposing to require appropriate entities to implement an Interim Resource Adequacy Service program for such new Large Loads that result in the PJM system being short of its Reliability Requirement and that those programs are initiated prior to Pre-Emergency Load Management.

The Board also recognizes the feedback regarding the various frameworks for serving load during periods of insufficient resource adequacy and specifically whether PJM could jurisdictionally require individual customers to participate. The Board recognizes the jurisdictional separation of responsibilities and the role of cooperative federalism. Specific customers will be subject to Interim Resource Adequacy Service based upon the data submissions to the Large Load Registry.

Participation Details

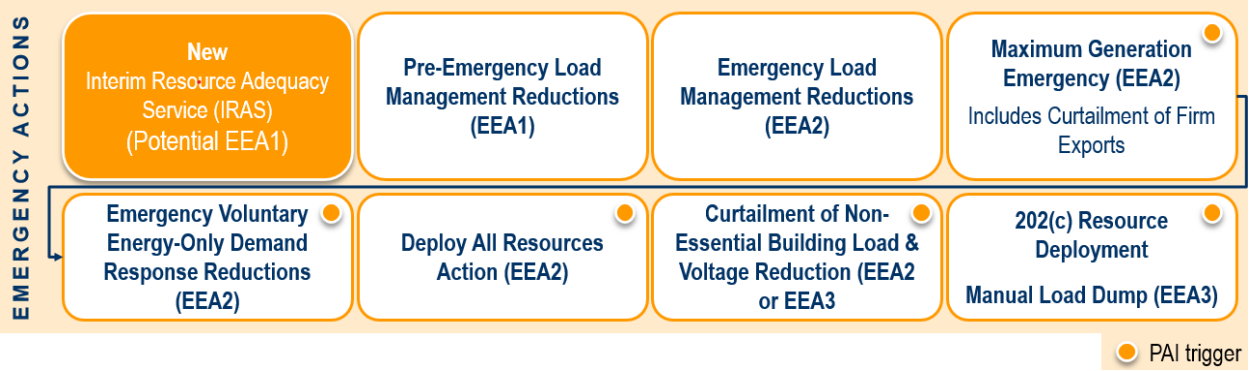
1. LSEs will need to designate any BYONC supply associated with new Large Loads for the duration of time required to maintain BYONC status.
2. Using the registry, PJM will determine the quantity of new Large Loads by zone/area that did not BYONC (or have RBP UCAP megawatts) and allocate an Interim Resource Adequacy Service responsibility to each zone/area starting with the 2027/2028 Delivery Year.
    a. If the quantity of new Large Loads that were not BYONC or is not offset by RBP UCAP megawatts is more than the total supply quantity short of meeting the Reliability Requirement, then each area will be assigned a pro rata quantity of Interim Resource Adequacy Service for such delivery year.
    b. If the total supply quantity short of meeting the Reliability Requirement > new Large Load that did not BYONC or is not offset by RBP UCAP megawatts, then all new Large Load (minus BYONC and RBP UCAP megawatts) are assigned Interim Resource Adequacy Service.
3. Using the registry information and subject to real-time needs of the system, new Large Loads that have not arranged for Bring Your Own New Capacity (BYONC) may be subject to load reduction prior to load reduction of other new Large Loads that are in the registry that have arranged for BYONC that is not yet achieved commercial operation.
4. Interim Resource Adequacy Service will be assigned to the zone/area. This service will be defined in PJM governing documents.
5. The Interim Resource Adequacy Service maximum RTO daily quantity equals the minimum of the Final RTO shortage (relative to the 1-in-10) or new Large Load (minus BYONC and RBP UCAP megawatts) for each delivery year.
6. All zone/area assignments will be converted to ICAP using the Forecast Pool Requirement (FPR) percentage.
7. Only megawatts needed in real-time capacity shortage will be subject to load reduction. This may not be all of the load assigned Interim Resource Adequacy Service.
8. All zone/area allocations are in zonal megawatt quantities, not customer specific.

9. After receiving a zone/area Interim Resource Adequacy Service megawatt allocation from PJM, the TO/ED, in coordination with the state, will also coordinate with the individual customers that will be subject to Interim Resource Adequacy Service for that delivery year.
10. Actual load reductions for Large Loads reduced for Interim Resource Adequacy Service will be added back for the purpose of calculating PJM peak load for capacity.

Emergency Procedures

Significant stakeholder feedback reflected the need to implement Interim Resource Adequacy Service before Pre-Emergency Load Management Reductions within the PJM Emergency Actions. The PJM Board agrees, and a new Emergency Procedure Interim Resource Adequacy Service Action will be created to support reliability. This new emergency action is shown in Figure 1 and will provide PJM Operators with an additional tool to manage the system and avoid a Manual Load Dump. Importantly, where permitted to do so, Large Loads subject to Interim Resource Adequacy Service will have the ability to switch to backup resources to avoid load from being interrupted as long as the Interim Resource Adequacy Service load is removed from the PJM system.

Figure 1: PJM Emergency Procedures With Interim Resource Adequacy Service



New Emergency Action Details

1. New and/or existing Emergency Procedures (Alerts and Warnings) need to be adjusted as appropriate to provide advanced notice that Interim Resource Adequacy Service may need to be reduced. This will be documented in Manual 13.
2. A New Emergency Procedure Interim Resource Adequacy Service Alert, Warning and Action will be developed and issued by PJM to reduce Interim Resource Adequacy Service load as necessary to maintain required RTO/Zonal Primary Reserves and/or IROLs within limits if available economic generation is not sufficient. This will be documented in Manual 13.
    a. This procedure would be issued after curtailment of any non-firm transmission service products but prior to implementation of Pre-Emergency Load Management.
3. PJM dispatchers have the flexibility of implementing the Emergency Procedures in whatever order is required to ensure overall system reliability. PJM dispatchers have the flexibility to exit the Emergency Procedures in a different order than they are implemented when conditions necessitate.
4. When PJM issues this new Emergency Procedure Action, the applicable TOs will be sent an Interim Resource Adequacy Service reduction megawatt quantity. This megawatt quantity will be updated on a periodic basis as necessary but will not exceed the total daily assigned quantity.

5. When receiving an Interim Resource Adequacy Service reduction megawatt quantity, the TO will take action to initiate and complete the reduction within 10 minutes.
6. Allocation of Interim Resource Adequacy Service:
    a. RTO Energy Shortage: Allocations will be performed pro rata by Interim Resource Adequacy Service load ratio share across all TO zones.
    b. Regional Energy Shortage (i.e., IROL/transfer issues): Only TO zones where the Interim Resource Adequacy Service reduction is effective at mitigating the regional shortage would be issued a reduction. Allocations would be performed pro rata by Interim Resource Adequacy Service load ratio share across the TO zones where the reduction is issued.

RPM Modeling

If insufficient supply is available to serve all load, particularly new Large Load, under the current reliability standard, then that additional load comes to the system with an acknowledgement that there may not be the ability for the system to serve it on the same firm basis as all other load. In such instances the new Large Load will be considered to be interconnected under the new Interim Resource Adequacy Service, thereby providing incentives for these new Large Loads to BYONC through new supply or Demand Response (DR) or Distributed Energy Resources (DER). Incremental new Large Loads relative to the forecast utilized for the 2028/2029 BRA will be excluded from the forecast used in future RPM auctions for the 2029/2030 Delivery Year and beyond unless and until there are new supply resources offered into an RPM auction in sufficient quantity to cover the new Large Load.

Credits

Interim Resource Adequacy Service load is providing a valuable reliability service to other load because it will be reduced prior to Pre-Emergency Load Management, thereby protecting other load from curtailment until PJM is through all of its other Emergency Procedures. As such, those loads should be credited for providing this reliability service, and that credit should be charged to all other load that benefit from that service.

Credit Details

1. In connection with the Interim Resource Adequacy Program, there will be a requirement for EDs (potentially in coordination with other appropriate entities) to implement a federally approved compensation program to compensate the Interim Resource Adequacy Service load when such loads are asked to reduce load from the transmission/distribution systems.
2. The compensation program will be administered by the EDs by awarding such compensation based upon determining compliance with the mandated load reduction and collecting the compensation from customers in the zone that benefit from the load reduction.
3. This compensation is expected to be strictly for load reductions associated with Interim Resource Adequacy Service, which is conducted before EEA3. The Large Loads that are reduced for Interim Resource Adequacy Service should not be entitled to additional compensation above other customers should there be EEA3.
4. Credit megawatt quantities should be based upon the actual load reduction achieved by Interim Resource Adequacy Service customers.
5. The specific details of the credit mechanism should be developed by EDs in consultation with and at the direction of their state regulatory authorities.
6. PJM will establish a federally approved hourly credit rate for Interim Resource Adequacy Service to be used in the ED compensation program. The credit rate will be equal to the already established Non-Performance Assessment Interval (Non-PAI) rate for existing Pre-Emergency Load Management events. This rate was approved by FERC

on June 26, 2026,[2] and is equal to 50% of the existing Performance Assessment Interval (PAI) rate. This is justified because similar to Pre-Emergency Load Management, Interim Resource Adequacy Service load is reduced at an earlier stage of emergency conditions. This 50% difference also reflects that the system needs during a Non-PAI event are not as severe, so the value of the load reduction, while still substantial, is also not as high as during a PAI event.

Bring Your Own New Capacity (BYONC)

New Large Loads that do not have associated new capacity as recorded in the registry are subject to Interim Resource Adequacy Service. LSEs must designate BYONC associated with new Large Loads for the duration of time required to maintain BYONC status. New capacity recognized as Bring Your Own New Capacity (BYONC) is defined as follows.

BYONC Eligibility

1. Supply: New UCAP megawatt of supply included in the 2027/2028 Third Incremental RPM Auction and later delivery year BRA/IA that has not cleared in a BRA/IA conducted prior to the 2027/2028 Third Incremental RPM Auction. For a given resource type BYONC UCAP must be >= New Large Load (FPR% of Load) for initial year only.
   a. Includes the following:
      i. New build
      ii. Uprates (incremental ICAP/CIRs only)
      iii. CIRs transferred from a deactivated resource or a resource that has announced deactivation as of April 10, 2026
      iv. Repowering of deactivated generators that have retired as of April 10, 2026
      v. Surplus interconnection (incremental only)
      vi. Resources that undergo fuel-switching to another more efficient fuel type that results in a higher UCAP and/or CIR uprate (incremental only)
   b. Excludes the following:
      i. Restoration of previous delivery year capacity deficiencies (e.g., failed tests) do not qualify for BYONC.
      ii. Existing resources operating under either a Reliability Must-Run (RMR) agreement or a Federal Power Act, Section 202(c) Order for continued operation beyond a planned retirement date do not qualify for BYONC.
      iii. Delayed retirements do not qualify for BYONC.
2. Demand Response (DR)/Distributed Energy Resources (DER): New Load Management (Emergency or Pre-Emergency DR)/DER. Any location that was not registered in DR Hub (includes PSA or PRD) for either the 2026/2027 or 2027/2028 Delivery Year unless the location represents a Large Load that was registered in a zone where there was a Large Load adjustment for the 2027/2028 Delivery Year for the first time in the 2027/2028 Delivery Year or the incremental amount from any location registered in 2026/2027 or 2027/2028, which was the result of registration of new generation or storage assets at the location. The UCAP is equal to the capacity committed through an RPM Auction.

[2] Docket No. ER26-2319-000

BYONC Quantity

1. Supply: Generation and Storage: For a given resource type BYONC UCAP must be ≥ New Large Load (FPR% of Load) for initial year only. Maintaining: Cannot submit a Must-Offer Exception associated with external sales and must be a price taker in RPM Auctions for 10 years.
2. DR/DER: BYONC UCAP must be ≥ New Large load (FPR%) for initial year. Maintaining: The BYONC ICAP megawatts from the initial year only must be demonstrated for 10 years and must be a price taker in RPM Auctions for 10 years.
3. BYONC, and associated resources RPM must-offer requirements, do not need to be maintained if Interim Resource Adequacy Service is not triggered for three consecutive delivery years.

BYONC Assignment and Timing

1. BYONC cannot be transferred to a different new Large Load unless the original Large Load no longer exists.
2. BYONC may be used for a portfolio of Large Loads. Large Loads can use a portfolio of BYONC.
3. Excess BYONC may be reserved for future Large Loads in a portfolio or for ramping (i.e., Large Load takes multiple years to ramp to full load).

BYONC Location

PJM's RPM and RTEP are conducted on a PJM RTO-wide basis and as such there is no locational requirement for BYONC. The PJM capacity resource paired with the Large Load can be in different PJM zone/areas. PJM recognizes that some stakeholders believe there should be some form of locational requirement for BYONC. PJM believes that the combination of the interconnection requirements, which ensure the transmission facilities are planned to ensure initial resource deliverability, and the Regional Transmission Expansion Planning process, which maintains deliverability of generation to all PJM load, will result in the ongoing deliverability of BYONC. States or EDs may add their own locational requirements that can be recognized.

BYONC Timing

1. EDs (and LSEs or any other entities with relevant information about BYONC) submit BYONC details to PJM by April 1 before the start of the effective delivery year.
2. EDs/LSEs notified by PJM and the registry updated to reflect BYONC verification by April 15 before the start of the effective delivery year.
3. Where Large Load comes in service prior to its associated BYONC being in service, LSEs/EDs/TOs with relationships to such Large Loads will be allocated greater quantities of Interim Resource Adequacy Service to coordinate until the BYONC is in service. BYONC that interconnects during a planning period may be eligible only if the resource procures PJM capacity.

BYONC Compliance

1. Failure of the capacity resource associated with the BYONC to materialize for the effective delivery year will result in the capacity resource being subject to PJM capacity deficiency charges and the Large Load being subject to Interim Resource Adequacy Service.
2. Failure of the capacity resource associated with the BYONC to perform during an Interim Resource Adequacy Service event does not impact the Large Load exemption status for Interim Resource Adequacy Service. However, the capacity resource will remain subject to PJM capacity rules and PAIs.

BYONC Verification

1. Large Load with a BYONC matching will be recorded in the registry with information provided by the ED/LSE serving the Large Load and verified by PJM that it satisfies BYONC requirements.
2. Large Load must provide proof of BYONC (contract, etc.) to both PJM and the ED by March 1 before the effective delivery year. Final verification that the Large Load met BYONC criteria will be made by April 1 before the start of the effective delivery year. Example: Executed a Power Purchase Agreement (PPA) or similar contractual commitment with financial investment.
3. Large Loads with an existing contract (BYONC) for a future delivery year can be listed in the registry but will be subject to Interim Resource Adequacy Service until the capacity resource is effective.

BYONC and Bilateral Match-Making Interaction

1. Load that participates and contracts through the bilateral matchmaking will be able to use this supply as a showing for BYONC (assuming the supply contracted meets the BYONC criteria).
2. Supply must be cleared in the RPM/Incremental Auction for relevant delivery year to be eligible for BYONC. Loads that cannot close a bilateral contract before the third IA for effective delivery year will be subject to Interim Resource Adequacy Service.

BYONC and Reliability Backstop Procurement Interaction

1. Supply that is procured through the PJM Reliability Backstop Procurement (RBP) and specifically matched with Large Loads will be UCAP megawatts “credited” to the ED zone/area that will be considered a BYONC showing for those specific Large Loads. How this is allocated to Large Load for Interim Resource Adequacy Service will need to be reported by the ED and provided in the Large Load Registry.
2. For BYONC credit from the reliability backstop supply, that supply must clear an RPM Auction for the relevant delivery year. If the reliability backstop supply is delayed, the Large Loads will be subject to Interim Resource Adequacy Service reduction beginning June 1, 2027, until the supply is able to come online.

Day-Ahead and Real-Time Modeling

Large Load subject to Interim Resource Adequacy Service will not be modeled differently than other load in both the Day-Ahead and Real-Time markets. This will ensure the model reflects the proper expected system conditions.

Additional enhancements to utilize PJM tools, such as SCED, are to be determined.

The TO/ED/LSE must notify PJM of the specific customer locations (EMS B1/B2/B3 name) that they have designated as Interim Resource Adequacy Service, along with any necessary telemetry.