



An **AEP** Company

Winter Preparedness 2024/2025

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Executive Summary

- Prepared with adequate resources and infrastructure to meet customer needs during Winter 2024/2025
- Mock events completed with Incident Command Structure to prepare staff for critical processes during winter weather events
- Focused on proactive communication with customers, local officials and state agencies if grid conditions have the potential to impact service



Indiana Michigan Power Resource Diversity

Diverse set of Generation Resources and PPAs:

- 2,181 MW Cook Nuclear Plant
- 1,318 MW Rockport Coal Plant (Unit 1)
- 19 MW of Hydroelectric Power
- 35 MW of Universal Solar
- 187 MW OVEC ICPA
- 450 MW of Wind Power under PPA;
 - 100 MW from the Fowler Ridge I Wind Farm in Benton County, IN
 - 50 MW from the Fowler Ridge II Wind Farm in Benton County, IN
 - 100 MW from the Wildcat Wind Farm in Madison County, IN
 - 200 MW from Headwaters Wind Farm in Randolph County, IN

~90%

Dispatchable Generation Resources

I&M Demand-Side Resources:

- Energy Efficiency Programs
- ~ 340 MW of Interruptible and Demand Response Load

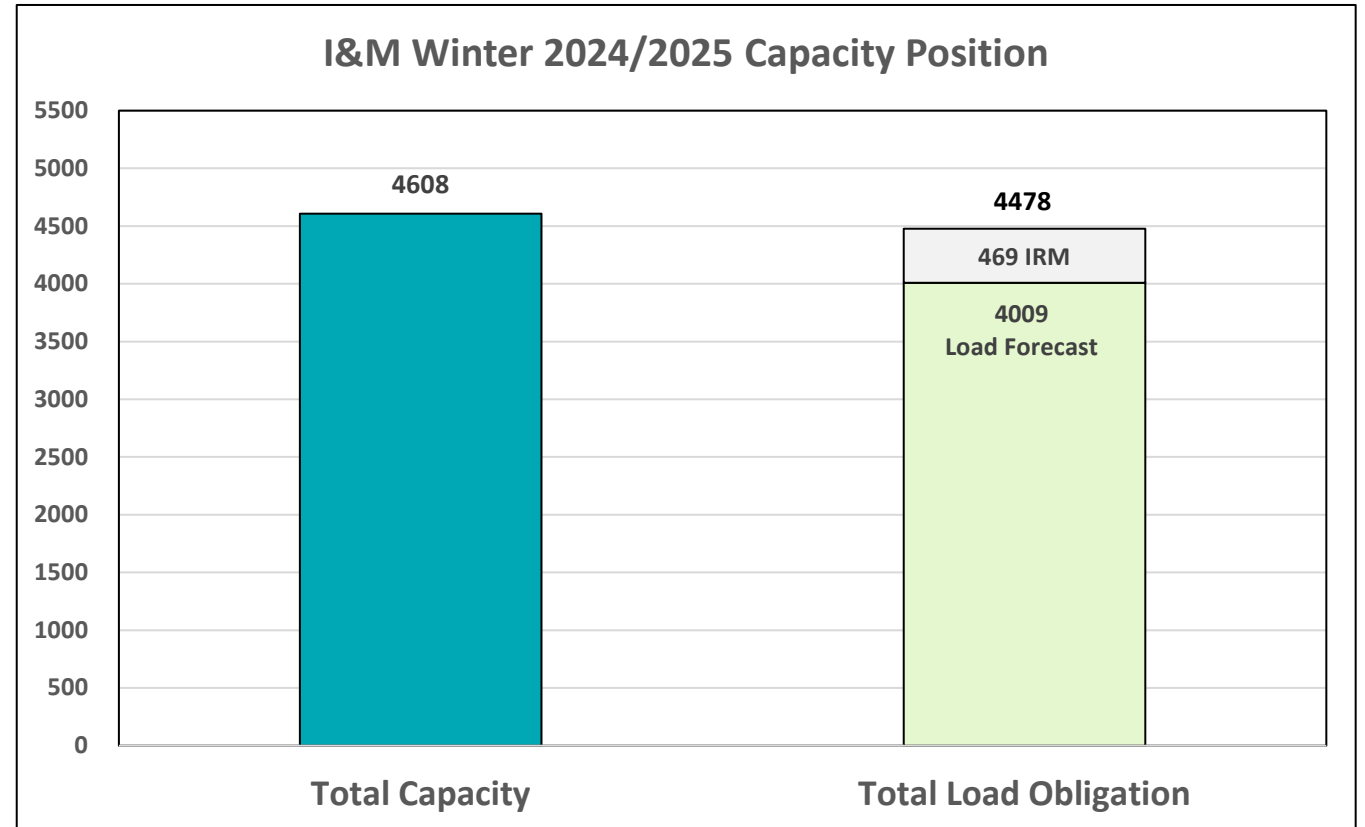


Winter Energy Outlook

PJM Unforced Capacity (UCAP)

I&M has sufficient capacity to meet its load obligations for Winter 2024/2025 with adequate reserve margin

Resource Type	2024 Capacity (MW)
Fossil & Nuclear	4003
Demand Response	393
Intermittent (wind, solar, hydro)	211
Total Capacity	4608



PJM-2024 Watch List

- I&M does not anticipate RTO changes to impact the ability to meet 2024/2025 winter load obligations.
- I&M is monitoring ongoing activities in PJM related to:
 - Capacity market changes to address resource adequacy with increase in large loads on the PJM system
 - Implementation of interconnection queue reforms for new generation resources
 - Capacity interconnection rights transfer efficiency

Winter Preparation: Fossil Generation

Fossil Generation

- Fuel Supply: I&M anticipates having adequate fuel supply on hand for Winter Operation
 - Projecting ~74 days of Full Load Burn (Dec. 1st)
- Winterization – Cold Weather Preparedness & Operation Plan Execution
 - Started Sept. 1st and attestation of plan execution was completed on Nov. 15th
- Planned Fall Outages: Addressing known liabilities
 - Rockport U1 – SCR Cleaning Outage
 - October 31 – outage end date and unit released to service.



Generation: Proactive Management of Extreme Cold Weather (Winter)

Weeks Ahead

- Address notable known liabilities during planned Fall Outages.
- Verify coal, chemical and reagent inventories and delivery schedules align with anticipated operating plan.
- Lessons learned review from previous Winter Operation and action plan initiation for identified opportunities.
- Cold Weather Preparedness & Operation Plan Review & Execution - November 15th

Days Ahead

- Ensure availability of needed staffing, setting up overtime and staffing augmentation as needed well in advance.
- Update and communicate “Stop Light Notification” system on daily basis to correspond with weather conditions.
- Complete readiness activities according to Winterization Policy/Procedure and anticipated temperature and duration.
- Stage additional portable heating equipment and place in service; monitor & refuel as required.
- Monitor ambient temps on O/S unit(s).

Day Ahead

- Increase operations rounds on critical equipment, monitoring of key trends in the Plant Information System
- Work scope review with respect to unit trip potential (risk), and limit tasks as necessary
- Monitor ambient conditions on units and outbuildings. Add additional portable heating as needed.
- Communicate with Production Optimization to schedule appropriate load points to manage reliability of units (cooling tower basin temps).
- Evaluate need to start up Auxiliary Boiler or out of service unit(s) as need for additional heat loading.

Winter Preparation: Nuclear Generation

Fuel Supply – 18 months fuel supply loaded each refueling outage



Planned outages

- Planned U1 spring outage 2025



Weeks Ahead

- System readiness reviews and challenge boards
- Plant walkdowns and maintenance completed on equipment needed for winter
- November 1 – winter readiness actions completed



Days Ahead

- Plant walkdowns completed
 - ensure contingency heaters in place
 - ensure heat trace operable
- Ensure measures are in place for safe employee access
- Place de-ice in service

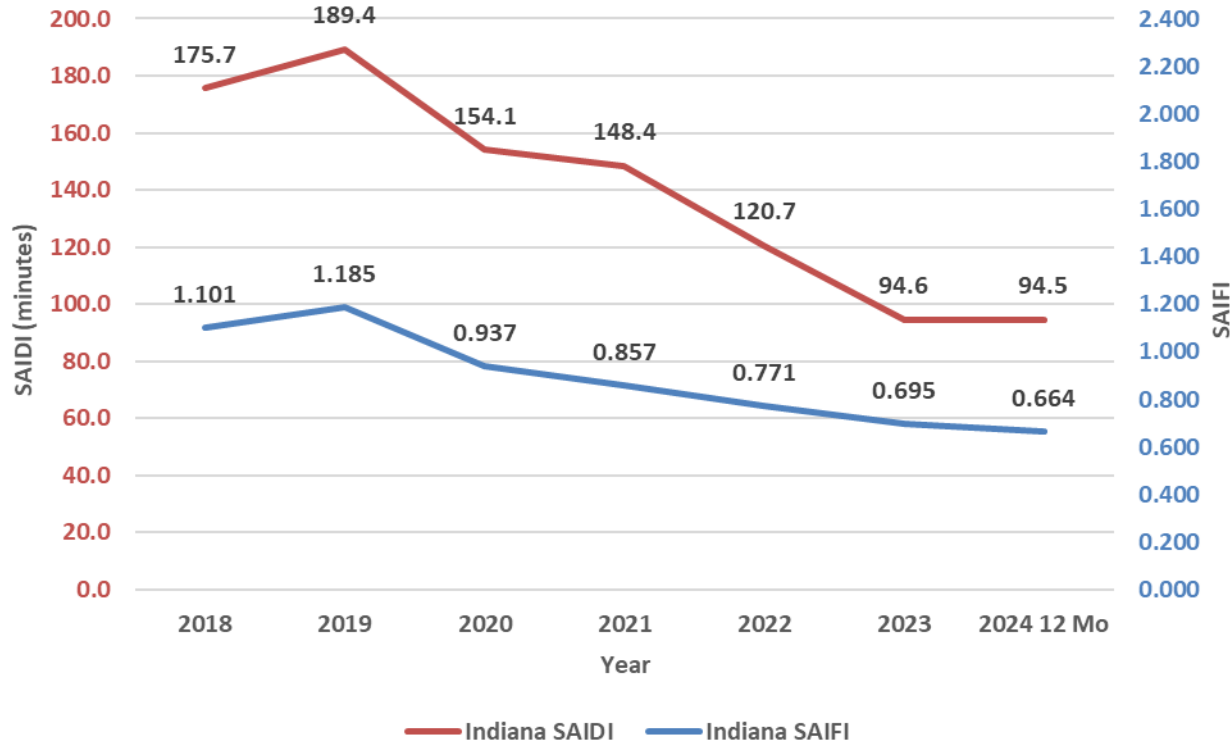


Day Ahead

- Increase plant operator touring frequency
- Contingencies to reduce intake velocity

Winter Preparation: Indiana Reliability & Resiliency

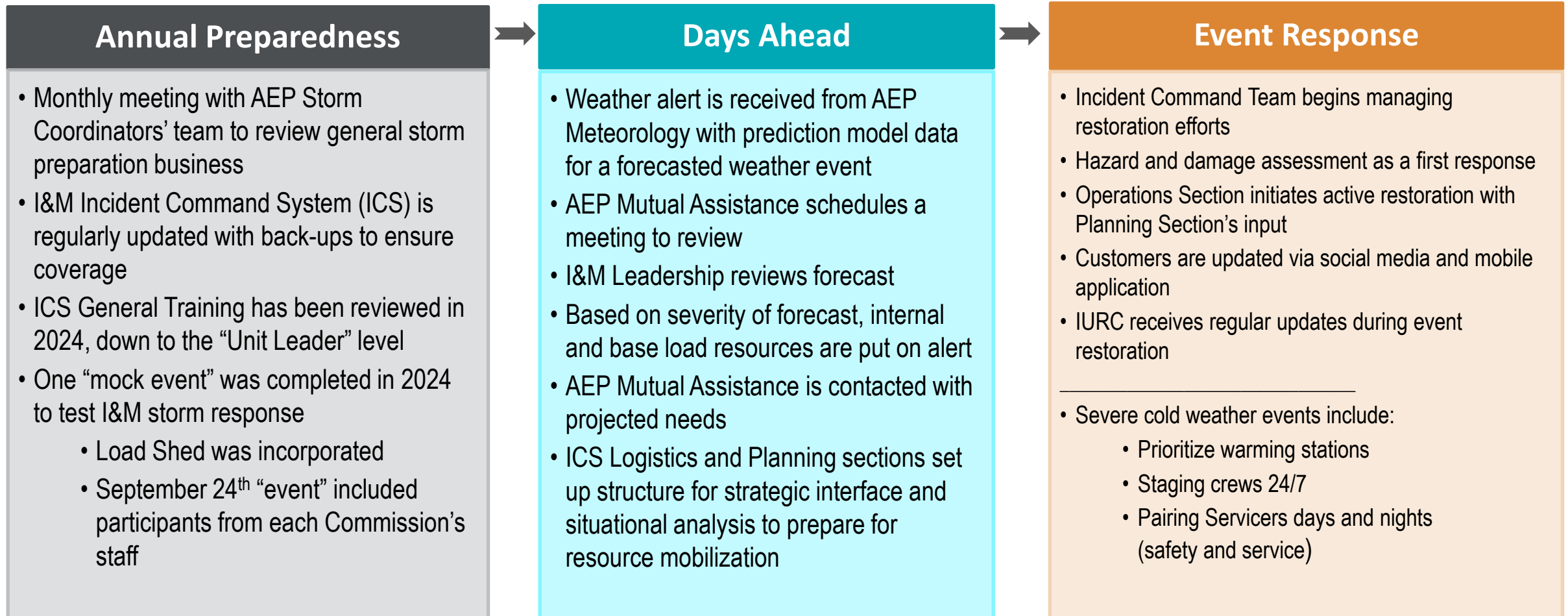
IM SAIDI and SAIFI
(excluding Major Event Days)



System / Process Improvements:

- **Storm Hardening Standards**
 - Aids in avoiding outages (lowers SAIFI)
 - Less damage in events
- **Grid Modernization Investments**
 - Smart Equipment improves response (lowers SAIDI)
- **Incident Command Structure**
 - Continuous improvement in storm responsiveness/communications
 - Mutual Assistance remains strong

Distribution Operations: Weather Preparations and Response



Winter Preparation: Customer Focus / Engagement

- **Customer Engagement During Event**
 - Social Media/One Voice – provides current “picture” of recovery
 - Mobile Alerts – provides ETR updates
 - I&M Website – provides geographical outage information
- **Winter Usage / Bill Impacts**
 - Estimated average monthly residential bill based on average customer usage is \$124.91 per month; based on 1,000 kWh is \$160.30 per month.
 - Primary impact associated with electric heat customers (approximately 14% of Indiana customers)
 - High usage and bill alerts sent to enrolled customers
- **Customer Messaging**
 - Energy efficiency winter savings tips
 - Winter preparedness messaging to customers
- **Demand Response**
 - Notifications sent to enrolled customers
 - Large customers contacted by customer service representatives



TIP #104

**POWERING THE NEXT
ENERGY-SAVING IDEA**



QUESTIONS?

