

BOUNDLESS ENERGY"





## **Executive Summary**

- Prepared with adequate resources and infrastructure to meet customer needs during Summer 2024
- Taking proactive steps across the organization to prepare for peak load conditions and weather related events
- Multi-tiered communications plan in place to inform customers and communities of severe weather impacts and potential demand response events







# Indiana Michigan Power Resource Diversity

#### **Diverse set of Generation Resources and PPAs:**

- 2,278 MW Cook Nuclear Plant
- 1,347 MW Rockport Unit 1 Coal Plant
- 22 MW of Hydroelectric Power
- 35 MW of Universal Solar
- 150 MW OVEC ICPA
- 450 MW of Wind Power under PPA;
  - 100 MW from the Fowler Ridge I Wind Farm in Benton County, IN

87.9%

Carbon-free System-wide

Generation In 2023

- 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

#### **I&M Demand-Side Resources:**

- Energy Efficiency Programs
- ~ 400 MW of Interruptible and Demand Response Load

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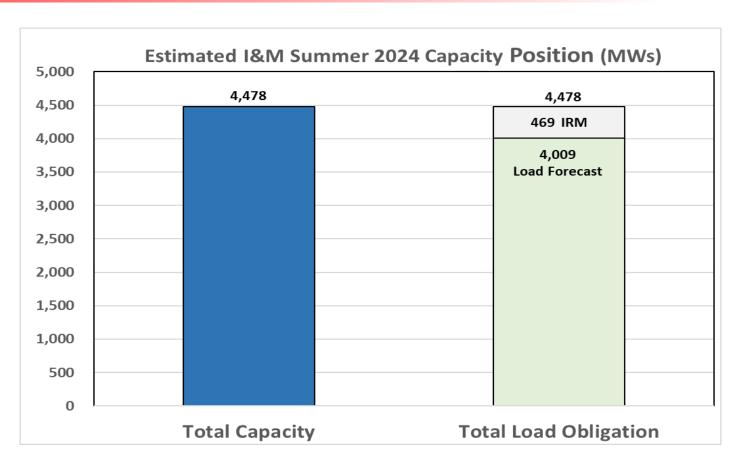
# Summer Energy Outlook PJM Unforced Capacity (UCAP)

I&M has sufficient capacity to meet its load obligations for Summer 2024.

Description	2024 Capacity (MW)
Fossil and Nuclear	4,003
Demand Response	393
Intermittent (Wind, Solar, Hydro)	83
Total Capacity	4,478

Projected Peak Load (MWs)							
May-24	Jun-24	Jul-24	Aug-24	Sep-24			
3,135	3,606	3,981	3,844	3,300			

Note: I&M's average summer peak for 2021-2023 is 3,944MW; the highest summer peak was 4,011MW in 2021.





### PJM-2024 Watch List

- I&M does not anticipate RTO changes that will impact the ability to meet 2024 summer load obligations.
- Ongoing conversations with PJM related to future load increases and impacts associated with Transmission and Generation capacity.
- Monitoring activities in PJM related to:
  - Implementation of recent capacity market changes and impacts on existing and future resources
  - Implementation of interconnection queue reforms for new generation resources and redevelopment of existing sites
  - Integration of Distributed Energy Resources into capacity, energy, and ancillary service markets



# Summer 2024 Preparation: Non-nuclear Generation

### **Rockport:**

- Unit 1 Spring outage on schedule for early June completion.
- Low pressure turbine rotor replacement will remove the 40 MW curtailment.
- Fuel, reagent, material availability and deliveries are meeting expectations.

#### **Other Generation Resources:**

- Solar, wind, and hydro are expected to be available for summer season.
- Generation needs in excess of I&M's available capacity will be met through market purchases.





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# Generation: Proactive Management of Extreme Weather (Summer Peaking)

#### **Weeks Ahead**

- Address notable known liabilities during Spring touch up outages.
- Verify coal, chemical and reagent inventories and delivery schedules align with anticipated operating plan.
- Heat Stress Awareness Policy review with employees.
- Review Severe Weather Procedure in Emergency Action Plan and execute tornado drill.
- Complete corrective and preventive maintenance of critical equipment including (blowers/compressors, circulating water intake screens and air filters, coal conveying equipment, etc.
- Prepare facility for summer operation by reversing winterization activities such as blanking of building vents/fans, adjusting thermostats, etc.
- Preventive Maintenance on HVAC systems in critical areas.

#### **Days Ahead**

- Increase operations rounds on critical equipment, monitoring of key trends in the Plant Information System
- Ensure availability of needed staffing, setting up overtime as needed well in advance.
- Increase monitoring for biofouling in cooling towers
- Establish staffing augmentation as needed.

#### **Day Ahead**

- Work scope review with respect to unit trip potential (risk), and limit tasks as necessary
- Extend delivery times/days for reagent truck drivers as needed
- Plan work and staffing according to heat stress policy – evaluate heat index and implement work / rest cycles and adequate supply of hydration.



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## Summer 2024 Preparation: Nuclear Generation

#### **Months Ahead**

- September/October critique completed from the previous summer to incorporate learnings and improve performance
- September/October challenge boards conducted based on summer readiness reviews. This includes tracking to ensure needed work is complete by May 15
- February –complete reviews of all production risk work, high risk activities, and first-time evolutions scheduled during the peak PJM period and ensure that it is moved out of that window
- April determination if any condenser cleaning or flushing is needed to support summer operations
- Certification of summer readiness by May 20

#### Days Ahead

- Extreme Warm Weather
  - Lake temperature >80 deg
- Outside air >95deg
  - Vulnerability review complete
- Specific component walkdowns completed
- Portable cooling made ready
- High Summer Heat
- >90deg for 2 days or more
- More tours by Operations
- Severe Weather Conditions
- Tornado, thunderstorm
- More tours by Operations
- Outside walkdown to secure loose material

#### **General Readiness**

- Planned/maintenance outages
  - Spring outage complete. No further outages planned for 2024
- No fuel supply concerns
- No supply chain issues impacting summer reliability
- Water related limitations
  - High lake temperature
  - Low lake level





## Distribution Summer Weather Preparation and Response

### **Annual Preparedness**

- Regular meetings with Regional Mutual Assistance Group (RMAG) to review issues
- I&M Incident Command System (ICS) is regularly updated with back-ups to ensure coverage
- Two "mock events" completed in 2023 to test storm response
  - November 7 "event" included participants from the IURC and MPSC
- Two events planned for 2024; first one set for June 18
  - Will extend an invite to Commission Staff to participate

#### **Days Ahead**

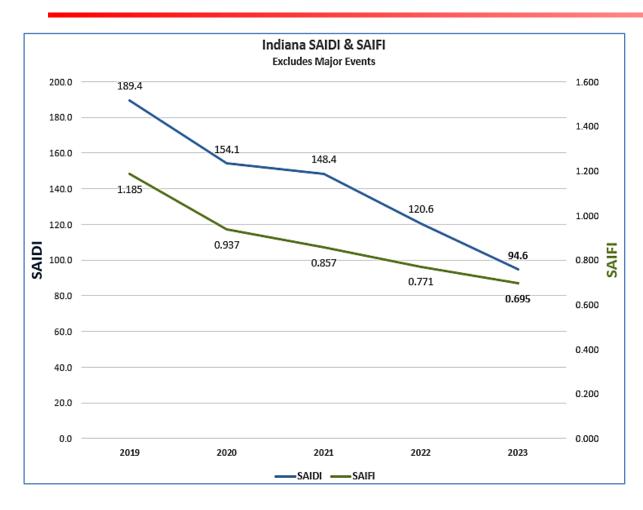
- AEP Meteorology alerts I&M about upcoming severe weather
- AEP Mutual Assistance schedules a meeting to review
- I&M Leadership reviews forecast
- Crews are put on alert
- AEP Mutual Assistance is contacted with projected needs
- ICS Logistics and Planning sections prepare to mobilize resources
- Stage crews if eminent threat is probable

#### **Event Response**

- ICS begins managing restoration efforts
- Begin hazard assessment and damage assessment as a first response
- Utilize AMI and other grid technologies to confirm outages and provide intelligence
- Operations initiates active restoration based on Planning data
- Customers are updated via social media and mobile alert application
- High heat weather adjustments:
  - Prioritize cooling stations
  - Pairing Servicers (safety and service)



# Summer 2024 Preparation: Improving Reliability & Resiliency

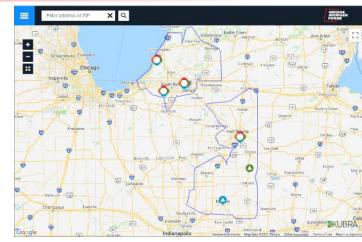


- 50% SAIDI improvement in 5 years
- Ongoing Investments in the Grid
  - Vegetation control & Asset Renewal
    - "Round 2" of active 4 year cycle
    - Actively replacing aging facilities
  - Modernization and Automation
    - AMI complete in 2024 (1/3 remaining)
      - Provides great insight into pattern and location of outages
      - Confirms if power is interrupted and when it is restored
      - Used to inform customers in real time
    - DACR grows from 11% to 15% of Indiana customers in 2024



# Summer 2024 Preparation: Customer and Community Engagement

- I&M conducts pre, during and post event communications with communities, customers and stakeholders
  - Relationship and coordination with Emergency Management Agencies (EMAs) throughout the year
  - Formal process utilizing weather triggers for proactive customer communications
  - Utilize multiple channels to get information out during an event:
    - Social Media/One Voice-provides current "picture" of recovery
    - Mobile Alerts-provides estimated restoration time updates
    - I&M Website provides geographical outage information
    - Direct contact with critical customers, government officials and agencies
    - Media updates
- I&M educates our customers in the summer and throughout the year on programs that can assist them
  - Demand response programs for residential and business customers
  - Payment assistance programs and payment plans
  - Energy efficiency programs for residential and businesses, including incomequalified weatherization

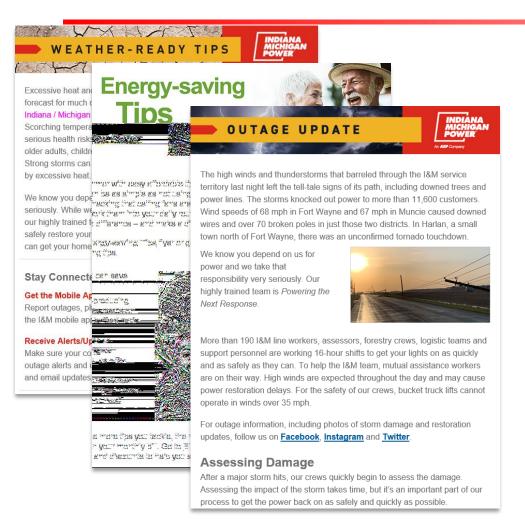




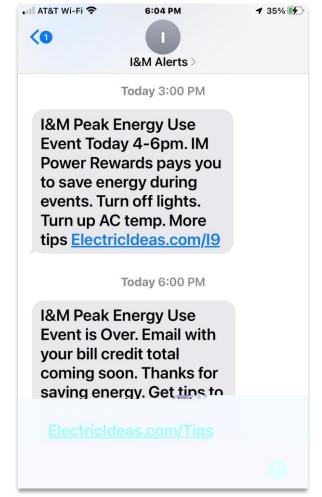


## **Customer Engagement Examples**

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## **Logistics; People and Materials**

### Staffing Considerations

- I&M has ongoing recruiting activities for all front-line positions
- Outreach to local schools and other organizations to promote utility careers
- Structured training programs and facilities in-house to onboard new employees into the organization
- Actively working on job placement opportunities for Rockport employees after plant retirement

### **Employees by Age Category**

T D or G	54 and under	55-58 years	59-62 years	63-65 years	66+ years	Total
G	801	110	124	57	32	1124
D	491	47	45	23	15	621
Т	93	7	13	4	1	118
Total	1385	164	182	84	48	1863

### Material Planning

- Longer lead items are addressed via five-year planning forecast
- Engaging with suppliers for committed quantities
- Power of AEP: supplier engagement, volume, price and delivery



Questions