

Indiana Utility Regulatory Commission

2023 Winter Reliability Forum



November 27, 2023



AES Indiana's team



Ken Zagzebski
President and CEO



Aaron Cooper
Chief Commercial Officer



John Bigalbal
Chief Operating Officer



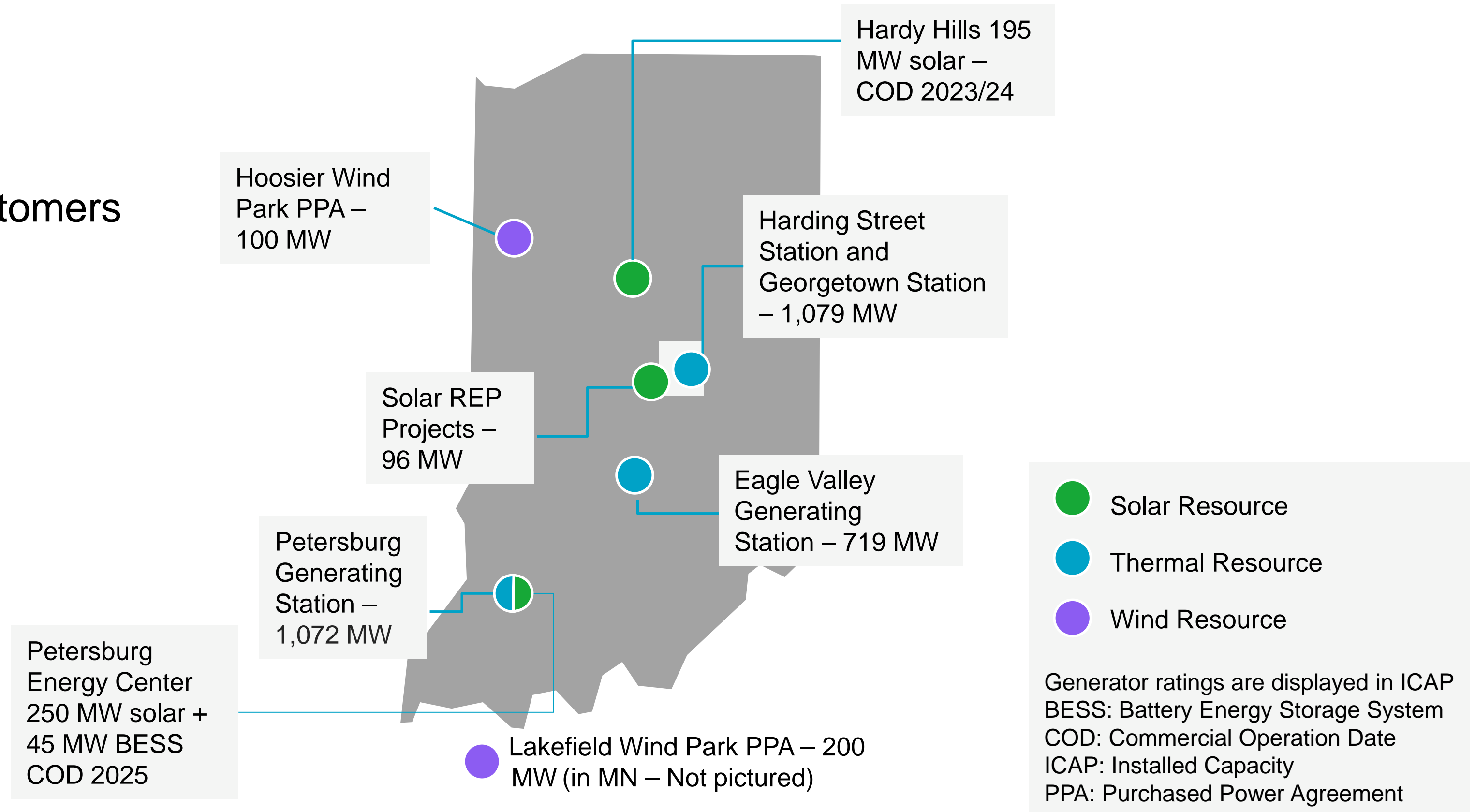
Mike Holtsclaw
Power Delivery Operations



Brandi Davis-Handy
Chief Customer Officer

Overview

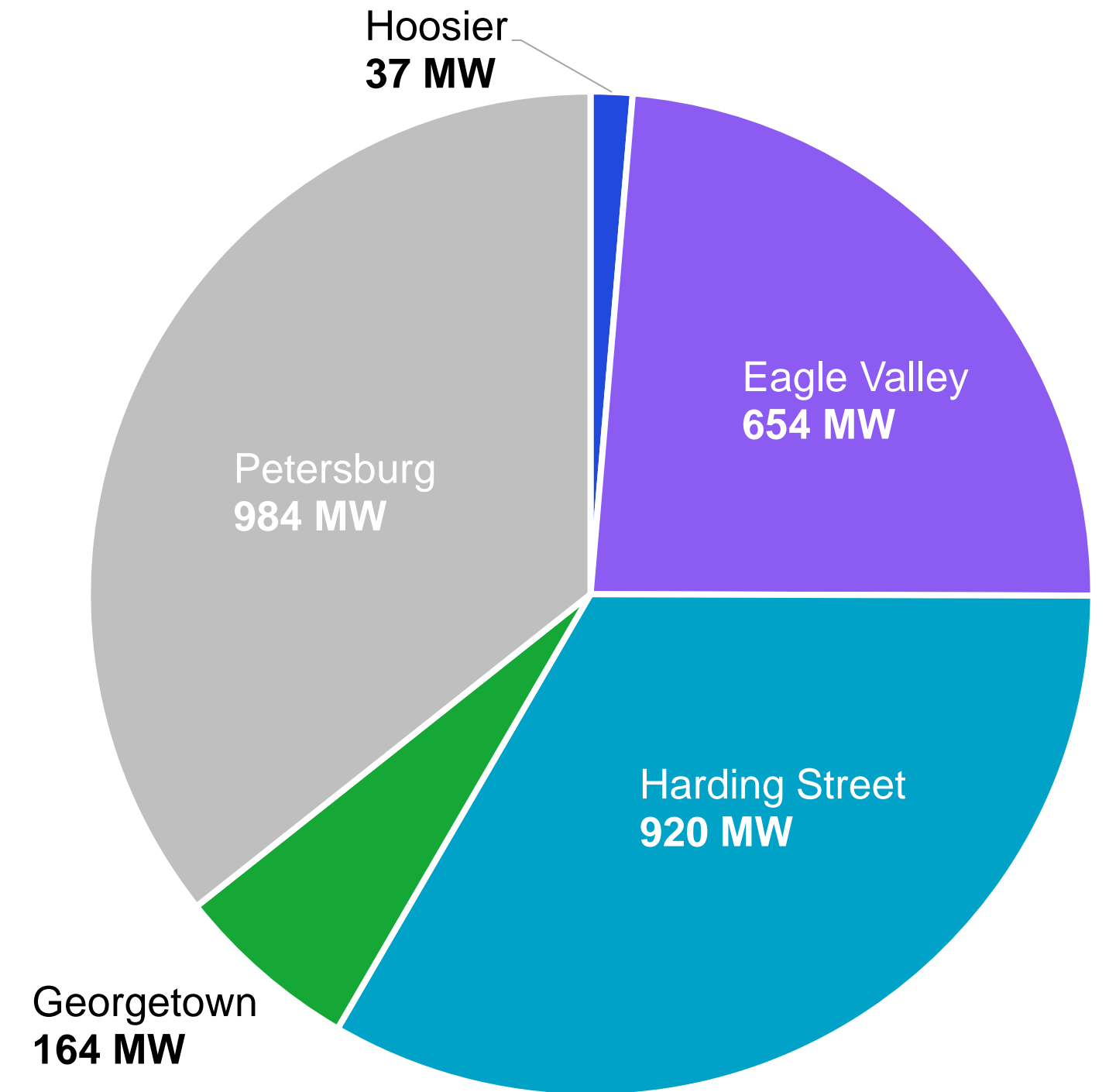
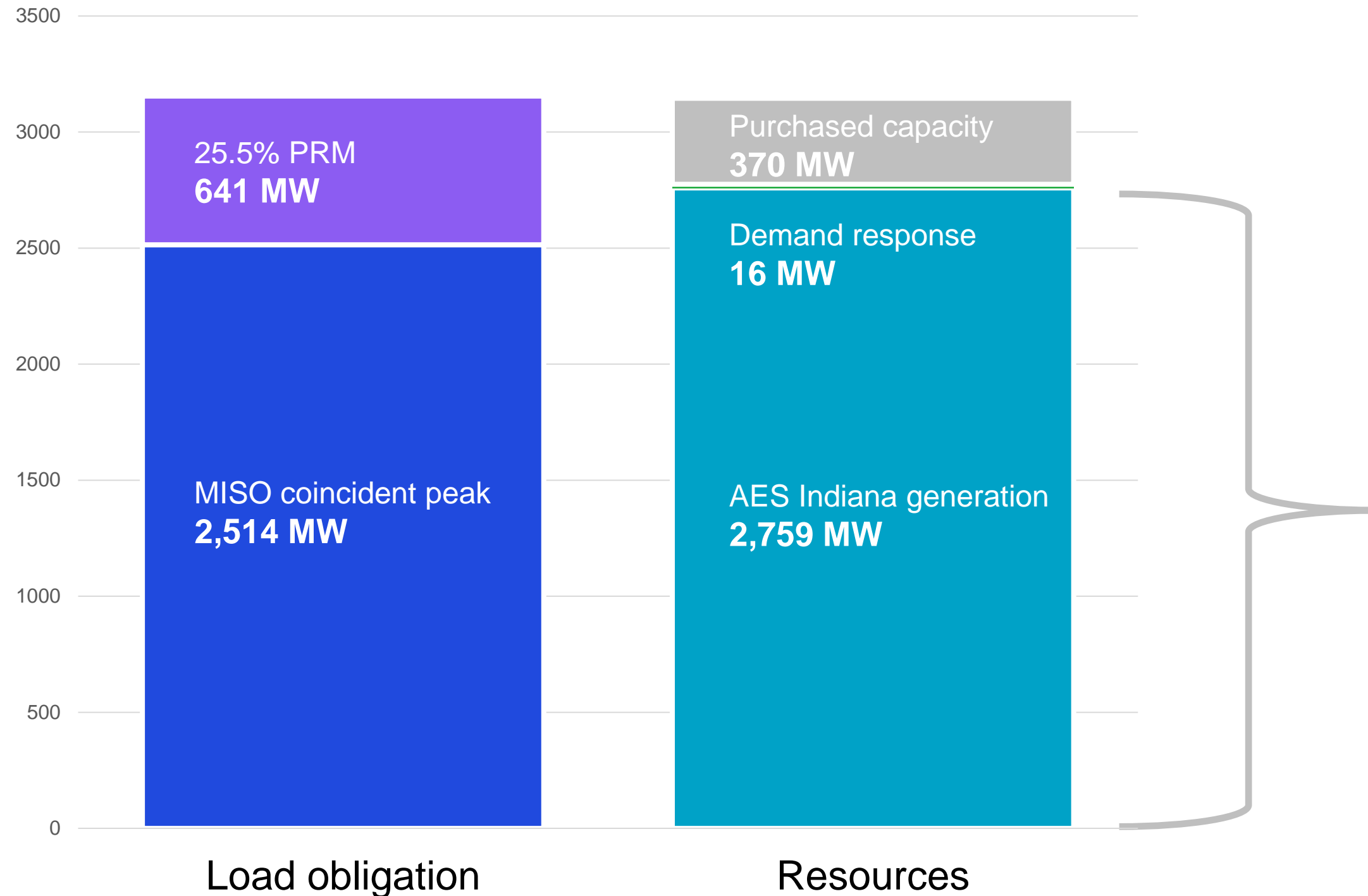
- 528 square miles
- 9 counties in Indiana
- 521,000 regulated customers
 - 460,000 Residential
 - 55,000 Commercial
 - 5,000 Industrial



Winter capacity margin

AES Indiana has secured sufficient capacity to meet its load obligation for Winter 2023

Winter 2023



MISO: Midcontinent Independent System Operator, Inc.
 PRM: Planning Reserve Margin
 SAC: Seasonal Accredited Capacity

Generation:

Ready for winter

- Winter safety topics
- Winter preventative maintenance
 - Freeze protection
 - Weather enclosures
 - Thaw sheds for coal unloading
- Winter cooling tower operation
- Coal less reliant on fuel supply than gas but both have proven to be reliable
- Recent Improvements:
 - Eagle Valley drum level transmitters upgraded
 - Harding Street Unit 7 forced draft fan inlet platform is being installed to access screens



Generation: Proactive management of extreme weather

7 days out

- Plan staffing requirements
- Wastewater Treatment Plant in winter operations mode

2 days out

- Schedule additional staff for winter event
- Test run gas turbines 4 and 5 at Harding Street on oil
- Implement cold weather operator rounds
- Ensure fuel storage for heaters has been topped off

1 day out

- Run coal conveyors continuously
- Run pumps on vulnerable systems continuously

T&D Operations: Proactive management of extreme weather

7+ days out

- Monitor Weather using the National Weather Service and private weather services
- Dedicated Storm Team is on-call each week monitoring weather and system conditions and provides initial response to an event

7 - 3 days out

- Internal discussions taking place daily on operations & staffing
- Transmission Operations begin looking at maintenance outages that can be recalled, return lines & equipment to service to the extent possible
- Supply Chain begins checking critical materials levels for common storm restoration material
- Notify Contractors On Property that they may be need for restoration efforts and to hold their crews until they are released by AES Indiana

2 days out

- Continuing to monitor the weather forecast for the latest changes and updates on timing
- Activate On-Call Storm Team
- Begin daily storm status calls

1 day out

- Transmission Operations would declare Conservative Operations (depending on the areas affected, MISO may also declare Conservative Operations for portions of the MISO footprint)
- Schedule additional staffing around the clock for outage response, in extreme cold events, single man crews are doubled up
- Schedule around the clock substation maintenance crews to respond to equipment issues
- Activate and man our Emergency Operations Center

Workforce of the future



Workforce of the future

T&D field crew staffing



How is technology changing the need for skilled linemen and the skills they need to work most effectively?

- Improvements in tools and equipment have made for a safer, more efficient work environment but has also driven the need for additional training for both apprentices and experienced line crews.
- New software system like our digital mapping system, work management system, and new outage management system next year, makes more information available to the crews in the field on tablets and other mobile devices.
- Technology has driven additional training for automated equipment, such as Automated Line Reclosers and Capacitor banks, and AMI meters.
- Specifically, the AES Indiana Training Center has supplemented its 520 hours of in-person classroom instruction with new training equipment and technologies, including remote training using iPads and hands-on training labs (de-energized & energized) for Lines Apprentices.
- The AES Indiana Training Department continues to identify and add training to ensure the work force is properly prepared to face the continually advancing environment, this includes our contractors.

Workforce of the future

T&D field crew staffing



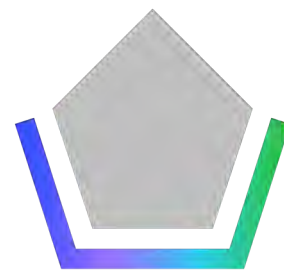
Given the issues of aging workforce, are the companies facing any problems with maintaining appropriate levels of staffing and experience for skilled line crews?

Has the company increased reliance on outside contractors for line work?

- The average age of an AES Indiana Line Technician continues to remain flat.
- AES Indiana continues to see high interest (200+) and applicant rates for apprentice openings.
- Difficulty staffing for off-shifts due to low desire to work non-traditional hours such as 2nd and 3rd shift.
- AES Indiana utilizes contractors as surge staffing due to the increase in capital improvement initiatives.
- The current workload requires the Company to rely on a contingency of contractor workforce to assist in meeting customer and company needs.
- Increased day to day contractor headcount provides benefit during weather related events.

Prudently managing fuel supply in current market conditions

Fuel delivery supply chain performing satisfactorily as winter season approaches



Onsite inventories

- Onsite coal inventories address potential supply disruptions – increase in winter
- High coal inventory for 2023-24 winter season
- Ensure max planned fuel oil onsite in winter for Harding Street dual fuel units



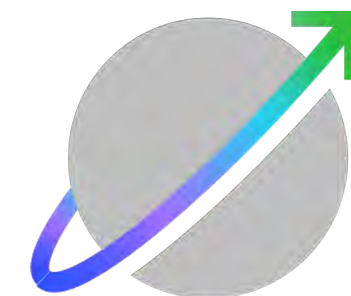
Natural gas transportation

- Firm transportation on multiple supply pipelines to ensure firm deliveries for AES Indiana gas facilities
- Contracts with Citizens Gas for Harding Street and Georgetown allow hourly flexibility to ensure optimal run-times for the market
- Contracted Citizens Gas on-system natural gas storage allows for immediate start-up of units even in overnight situations



Communication with Supply and Logistics

- Preparation – ready for the season internally and confirm with external parties
- 20-day look forward – monitor weather and plan for potential events
- During an event – hyper-communicate to recognize and address issues in addition to normal daily calls



MISO

- Follow MISO protocol
- Generation operators in continuous contact with MISO
- Monitor Multiday Operating Margin Forecast Report to anticipate critical days

Fuel supply and firm natural gas transportation include needed flexibility to ensure **reliable and efficient operations**

Combination of on-site fuel and firm natural gas transportation for 100% of conventional generation resource requirements



Eagle valley has **firm transportation**

- 100% firm transportation via Texas Gas contracts – can be utilized at other AES Indiana facilities
- Natural gas hedge purchases include firm delivery and provide up to 80% of Eagle Valley's daily needs during the winter
- Pipeline capacity provides hourly flexibility and remainder of firm needs



Harding Street and Georgetown have **firm transportation** from Citizens Gas

- Firm transportation is enough to cover a peak day for all gas-only units, and provides hourly flexibility to meet peak hour needs
- On site inventory for dual fuel units – four day burn equivalent
- Firm transportation + onsite oil inventory = 100% capacity



Petersburg has **high on-site coal inventory** for winter

Impacts from pipeline requirements

Nomination deadlines can create overnight challenges

- The gas nomination cycle can create some limitations for generation, particularly in the winter
- Mismatch between Electric Day (ED) and Gas Day (GD)
 - ED is midnight to midnight
 - GD is 10 AM Eastern Prevailing Time (EPT) to 10 AM EPT
 - Can be challenging to manage overnight generation and fuel consumption – critical time in the winter
 - Last nomination cycle for the gas day ends at 8 PM EPT – next 14 hours no changes can be made to adjust for overnight generation changes
 - Contracts with local distribution company allow flexibility for units to follow market signals

Modeling and planning impacts

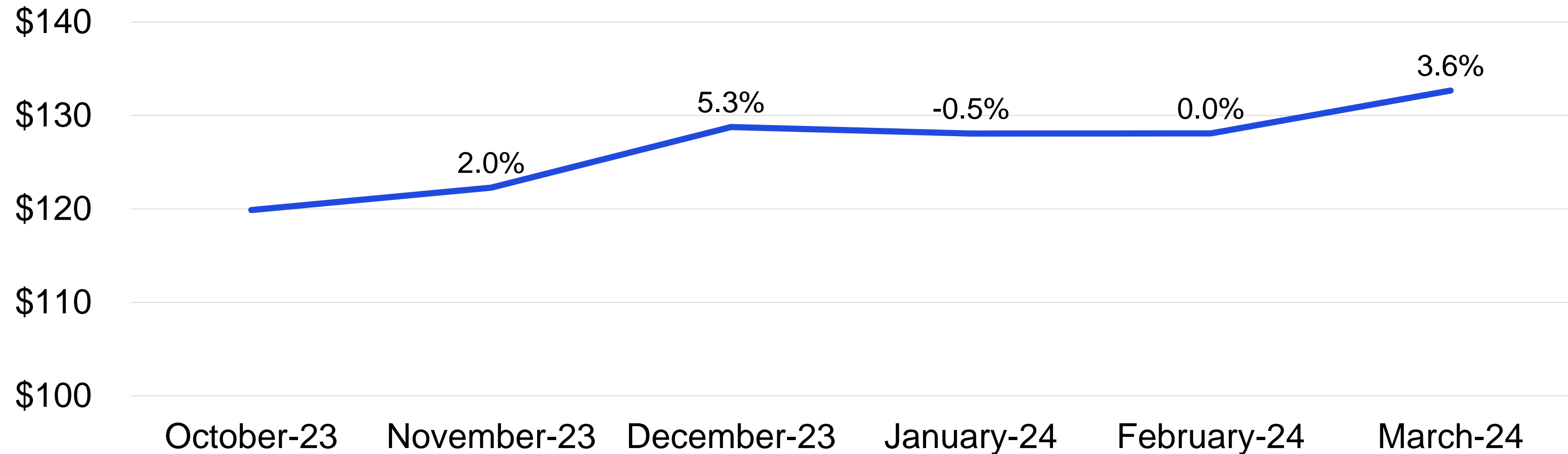
- Contractual mitigations reduce probability of consequential impact for long-term modeling

RTO resource accreditation process

- The Loss of Load Expectation (LOLE) study determines a minimum planning reserve margin for each season that would result in MISO system experiencing <1 day loss of load event every 10 years, as per the MISO Tariff – presumably captures, among other things, historic outages due to fuel supply
- Recent MISO proposed adjustment to seasonal Planning Reserve Margin (PRM) values

Winter 2023-2024 customer bill trends

Forecast of Total Monthly Residential Bills for 1,000 kWh of Usage



*AES Indiana's forecast includes Commission-approved rates through November 2023. AES Indiana's forecast for December 2023 through February 2024 includes rates that are currently pending Commission approval. AES Indiana's forecast for March 2024 includes current estimates of AES Indiana's ECR 37 and FAC 142 tracker rates.

- AES Indiana forecasts winter 2023-2024 residential bills to be approximately 12-19% less than winter 2022-2023 residential bills.

Providing support for customers this winter



Power of Change

AES Indiana has partnered with Dollar Energy Fund to help income-qualified customers with a one-time grant to assist with electric bill payments when financial challenges occur. The goal is to offer our customers assistance during a time of need.



Payment Assistance

- Energy Assistance Program (EAP)
- United Way of Central Indiana's Winter Assistance Fund (WAF)
- Community Assistance Programs
- Budget Billing
- Payment Extensions
- Preferred Bill Due Date



Energy Efficiency

AES Indiana is running an energy efficiency campaign this winter to increase awareness of tips, resources, and programs our customers can utilize to improve how they manage and use energy at home and work. This campaign includes television and radio spots as well as social media.

Providing support for customers this winter



AES Indiana

Published by Sprout Social · October 2 at 12:41 PM ·

AES Indiana and [Citizens Energy Group](#) are partnering to share info about the energy assistance programs available to you this year. The Energy Assistance Program (EAP) is now open and is your first step in applying for energy assistance. An online application and qualification information are located at www.eap.ihcda.in.gov



Winter bill assistance

As colder weather approaches, AES Indiana understands high bills can be financially challenging. If you require assistance during this upcoming winter season, we have programs and resources in place to provide energy assistance and support for you and your family.



For more information on winter bill assistance visit aesindiana.com/payment-assistance.



Our commitment to transforming your experience

For more than 100 years, you have trusted us to deliver reliable energy services. Experiences are now faster and easier than ever before, and makes us ask, "Why should your experience with your electric utility be any different?"

We're excited to announce AES Indiana's commitment to simplifying and elevating your experience. This isn't an overnight change – it's been several years in the making with a powerful team behind it, the best of tech, and with you, our customer, at the center.

The foundational elements of this transformation are rolling out now and with it, you'll experience the first new features, including:

- New payment options, including Apple Pay, Google Pay, and American Express.
- More convenient options for starting or stopping service, even during weekends and holidays.

We are excited to build on this foundation with new ways to keep you connected and informed throughout a more seamless energy experience.

Thank you for trusting us as we continue to accelerate the [future of energy](#), All together.



Q&A