



May 1, 2026

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Dr. Borum,

AES Indiana appreciates the opportunity to respond to stakeholder comments submitted in connection with the 2025 Integrated Resource Plan. The attached response addresses several of the primary issues raised.

We look forward to reviewing the IURC Director's Report once it is issued. Please feel free to reach out with any questions in the interim.

Respectfully submitted,

A handwritten signature in black ink that reads 'Patrick Maguire'.

Patrick Maguire  
Vice President, Commercial



# **AES Indiana’s Reply to Stakeholders’ Comments to AES Indiana’s 2025 Integrated Resource Plan**

## **1. INTRODUCTION**

Indianapolis Power & Light Company d/b/a AES Indiana (“AES Indiana” or “Company”) filed its 2025 Integrated Resource Plan (“IRP”) with the Indiana Utility Regulatory Commission (“Commission” or “IURC”) on October 31, 2025. Advanced Energy United (“United”), Citizens Action Coalition (“CAC”), the City of Indianapolis (“City”), Indiana Office of Utility Consumer Counselor (“OUCC”), Environmental Law & Policy Center (“ELPC”), Solar United Neighbors (“SUN”), Vote Solar, Clean Grid Alliance (“CGA”), Reliable Energy Inc. (“REI”), and Hoosier Environmental Council (“HEC”) submitted comments on AES Indiana’s IRP to the Commission on March 6, 2026. AES Indiana appreciates the time and consideration these stakeholders devoted to reviewing the IRP and providing feedback.

The Company remains committed to a comprehensive, collaborative stakeholder process to continually strengthen its IRP development. In support of this commitment, AES Indiana conducted an extensive pre-filing stakeholder engagement process that included four public advisory meetings and four technical meetings, during which stakeholders provided input on a range of IRP components. This feedback was incorporated into the Company’s modeling assumptions, which sought to balance diverse stakeholder perspectives regarding future market conditions and modeling methodologies. Stakeholder collaboration and input ultimately informed AES Indiana’s selection of the Preferred Resource Portfolios.

AES Indiana offers clarification and, where appropriate, corrections to several stakeholder comments and subject areas.<sup>1</sup> AES Indiana has organized its responses to stakeholder comments as follows.

- Advanced Energy United (United)
- Clean Grid Alliance
- The City of Indianapolis (City)
- Office of Utility Consumer Counselor (OUCC)
- Citizens Action Coalition (CAC), Environmental Law & Policy Center (ELPC), Solar United Neighbors (SUN), Vote Solar, and Clean Grid Alliance (CGA)
- Hoosier Environmental Council (HEC)

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<sup>1</sup> The absence of a response to every issue raised by stakeholders in their comments to AES Indiana’s IRP does not mean AES Indiana agrees with stakeholders on those issues.

## **2. RESPONSE TO ADVANCED ENERGY UNITED**

Advanced Energy United submitted comments focused on five key areas: demand response and efficiency, the Petersburg 3 and 4 units, Lakefield Wind, advanced transmission technologies (ATT), and large load concerns. AES Indiana values this feedback and has reviewed these comments within the broader context of the objectives, assumptions, and statutory requirements that guide integrated resource planning in Indiana.

### **A. DEMAND RESPONSE AND ENERGY EFFICIENCY**

United recognizes the importance of AES Indiana ensuring that the levels of demand response (DR) and energy efficiency (EE) included in the preferred portfolio are both achievable and aligned with the Market Potential Study (MPS) and Realistically Achievable Potential (RAP) results. United notes that while AES Indiana proposes additional firm DR capacity and EE by 2032, independent of potential large load additions, the successful delivery of these programs will require sustained Commission approval and consistent implementation throughout 2027–2029.

United indicated support for AES Indiana’s strategy of meeting any capacity shortfalls via DSM and appreciates AES Indiana’s selection of such resources in the 2025 IRP. United supports AES Indiana’s interest in large load participation in demand-side programs, which could potentially “help reduce peak demand, defer infrastructure upgrades, and improve overall system flexibility”.

### **B. PETERSBURG UNITS 3 AND 4 AND FUTURE REPLACEMENT**

Advanced Energy United notes that Petersburg units 3 and 4 are scheduled for repowering to natural-gas steam turbines in 2026 as outlined in AES Indiana’s 2022 IRP. United emphasizes that cleaner alternatives, such as utility-scale wind and solar, could replace this capacity more cost-effectively with fewer environmental impacts.

The decision to convert Petersburg units 3 and 4 to natural gas was a significant focus of the 2022 IRP.<sup>2</sup> After comparing six strategies across four scenarios using a scorecard, AES Indiana determined that converting the units to natural gas provided the most affordable, reliable, resilient, and sustainable path forward.

United highlighted the risks associated with natural gas development, including long equipment lead times, supply-chain constraints, and lengthy interconnection queues that could potentially extend project timelines. AES Indiana has successfully secured the equipment for the conversion and is in the final stages of completing the conversion work on Petersburg Unit 3.

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<sup>2</sup> [Integrated Resource Plan \(IRP\) 2022 | AES Indiana](#)

United points to the volatility in fuel price, as well as recent extreme weather events that have exposed the reliability and cost risks of over-reliance on natural gas. In the 2022 IRP, AES Indiana found that converting the units yielded least economically volatile path.

Moreover, given the Petersburg site's prior groundwater contamination issues, United highlights that replacing aging coal units with another fossil resource appears counterintuitive; therefore, United encourages AES Indiana to further examine clean energy alternatives. United also recommends that AES Indiana proactively communicate the potential financial burden on customers should Petersburg be required to remain online, citing recent cost impacts experienced by other utilities in similar situations.

Clean energy alternatives were evaluated in the 2022 IRP but were found to be a less economically advantageous portfolio for ratepayers. AES Indiana is in the final stages of completing the conversion work on Petersburg Unit 3 and is preparing for the Petersburg unit 4 conversion as scheduled.

### **C. LAKEFIELD**

United also addresses the need for explanation surrounding the 200 MW Lakefield Wind power purchase agreement set to expire in 2032, including the rationale behind the lack of capacity credit, and why its location external to Indiana prohibits the organization from receiving capacity credit.

As stated on page 75 of the 2025 IRP, Lakefield Wind does not receive capacity credit because of its interconnection service. To further elaborate, Lakefield Wind has Energy Resource Interconnection Service (ERIS), not Network Resource Interconnection Service (NRIS) interconnection service. The lack of capacity credit is because of this interconnection service and not because of its location in Minnesota compared to Indiana.

United emphasizes that AES Indiana should respond to how it will address the resulting capacity shortfall once the contract ends. United requests that future IRPs include clearer justification for not pursuing extensions of Lakefield or similar PPAs and that AES Indiana begin evaluating replacement options, particularly Indiana-based wind projects of comparable scale.

In the 2025 IRP, Lakefield Wind was not renewed for an extension. Since there is no firm capacity associated with this contract, replacements for Lakefield Wind would focus on replacing energy, not capacity. Any replacement resources will be informed by the results of a competitive RFP process, such as the one AES Indiana hosted in 2024, and

will be considered through the IRP and other regulatory processes, such as Certificate for Public Convenience and Necessity (CPCN) proceedings.

#### **D. ADVANCED TRANSMISSION CONSIDERATIONS**

United acknowledges AES Indiana's active review of a range of Advanced Transmission Technologies, including dynamic line ratings (DLRs), power flow controllers, topology optimization, and advanced conductors, agreeing that these options can often be deployed faster and at lower cost than traditional transmission projects.

United agrees with AES Indiana that ATTs do not generate electricity but emphasizes that technologies like DLR can help utilities avoid or defer expensive new generation investments, as demonstrated by AES Indiana's own DLR results. United therefore recommends that AES Indiana expand DLR deployment across a greater portion of its system, adopt advanced conductors for both new builds and reconductoring projects, and continue evaluating ATT opportunities to better capture benefits such as increased line capacity and avoided transmission and generation costs.

AES Indiana will continue to work with stakeholders to identify, evaluate, and adopt advanced transmission technologies on its system. However, since ATTS do not generate electricity, AES Indiana would still need to acquire new generation or increase market purchases to serve load.

#### **E. LARGE LOAD CONCERNS**

United recommends that AES Indiana prevent overreliance on large utility-built generation. United again highlights substantial uncertainty in the natural gas turbine supply chain, casting doubt on AES Indiana's ability to bring a natural gas combined-cycle (NGCC) unit online by 2032. Likewise, United recommends that agreements, contracts, and tariffs for large new customers allow those customers to have a hand in energy sourcing and to have a choice in how most of their load is served. Moreover, United suggests that AES Indiana offer large load customers the option to contribute financially to energy efficiency, demand response, virtual power plant, and demand flexibility programs, as these measures can reduce the amount of new generation required. United supports enabling large customers to actively participate in targeted demand-side programs that reduce peak demand and defer infrastructure upgrades. Such recommendations aim to minimize AES Indiana's need to build large-scale new resources and to provide customers with greater flexibility in how their energy needs are met.

AES Indiana has an obligation to serve those in its service territory and seeks to meet this obligation by following the required processes of hosting RFPs, conducting IRPs, conducting other economic analyses, and filing for approval of these resources with the

Commission. Currently, utility-scale generation, including a combined cycle unit in 2032, was supported in the 2025 IRP analysis as part of the solution that best balances the Five Pillars. Should large loads choose their own generation sources, they would have to work with AES Indiana to isolate the resulting economic impact. AES Indiana is willing to work with large load customers on this.

As shown in the preferred plan, demand side resources and energy efficiency play a significant role in AES Indiana's preferred portfolio. Large load customers can opt out of both participating in the Company's energy efficiency programs and Standard Contract Rider No. 22 rate adjustment (Demand Side Management Adjustment), provided the conditions stated in the tariff sheet for Standard Contract Rider No. 22 are met.

### **3. RESPONSE TO CLEAN GRID ALLIANCE**

AES Indiana values CGA's recognition of the transparency and rigor of the IRP process, and CGA's input on the following topics: preferred portfolio selection, modeling assumptions, resource selection and transmission considerations, and large load planning.

#### **A. PREFERRED PORTFOLIO SELECTION AND IRP FRAMEWORK**

AES Indiana acknowledges CGA's characterization of the sixteen candidate portfolios tested across four scenarios and our load forecasts, and notes CGA's observation that the two Preferred Portfolios selected do not include any new wind, solar, or multi-day energy storage through 2045. CGA believes this may not accurately reflect the current cost trends and the availability of these resources within the MISO system. As discussed further below, CGA asserts that some modeling inputs and assumptions may not have favored the selection of renewable resources, potentially exposing MISO customers to future fuel price volatility, infrastructure limitations, equipment costs, and regulatory risks.

#### **B. REFERENCE CASE MODELING INPUTS AND ASSUMPTIONS**

AES Indiana selected its two preferred portfolios based on performance across a scorecard that reflected the Five Pillars. The portfolios select a diverse mix of resources, including energy efficiency, demand response, energy storage, and combined cycle generation. Resource selection was achieved through an industry-leading capacity expansion and dispatch model.

While CGA understands the explanation provided by AES Indiana regarding the low level of RFP responses and siting challenges in the state of Indiana, CGA has observed that the capital cost inputs and assumptions in the Reference Case study are higher than recent industry benchmarks and published costs for wind and solar with storage resources. AES Indiana adjusted three industry resources (NREL's 2024 Annual

Technology Baseline (ATB), Wood Mackenzie’s 2024 Base Case Update, and Bloomberg New Energy Finance’s (BNEF) Second Half (2H) 2023 Levelized Cost of Energy (LCOE) Report) upward based on capital costs received in the 2024 All Source RFP and 2025 Thermal RFP hosted by Charles River Associates. Requirements under the all-source RFPs reflected what AES Indiana considered best utility practices.

CGA expressed concern about the accreditation values for future wind resources, highlighting discrepancies between the assumed accreditation values and MISO’s indicative class-level DLOL results, and stating that updated accreditation values could impact modeling results and portfolios. AES Indiana created estimates using the best available information at the time of model creation. Hoosier Wind reflects its actual MISO accreditation and is believed to better reflect wind performance in Indiana. See Figure 1 for a comparison. However, in the 2024 RFP, AES Indiana did not receive any bids for wind located in Indiana. Should AES Indiana receive a wind bid competitively through an RFP, it will evaluate it using the most recent accreditation estimates at the time.

Figure 1: Wind Accreditation

	Summer	Fall	Winter	Spring
Planning Year 2025 – 2026 Indicative Direct Loss of Load (DLOL) Results <sup>3</sup>	8%	15%	22%	14%
2025 IRP	7%	11%	17%	12%

CGA observed that the Reference Case study provides a natural gas price forecast that assumes low prices in the long-term. CGA has observed recent published data and forecasts indicating higher natural gas prices and greater volatility in the near- and medium-term. CGA has observed that, in scenarios with higher forecasted natural gas prices, renewable and storage resources are favored, and believes this should be further considered.

Natural gas prices were stressed in multiple ways in the 2025 IRP. AES Indiana modeled three different natural gas scenarios in the IRP. Near-term (through 10 years) prices were aligned with natural gas forward curves, and long-term prices were escalated in line with inflation. Optimized portfolios were created for each scenario, and all were locked and run through the other scenarios using a traditional scenario matrix analysis. Additionally, natural gas prices were varied stochastically, providing further insight into each portfolio's risk exposure under changing market conditions. AES Indiana believes the natural gas prices used in the IRP are reasonable, and the base forecasts were stressed through scenario and stochastic risk analyses. The company

<sup>3</sup> [LOLE Study Results PY 2025-2026](#)

will continue to evaluate forecast vendors and methodologies as we approach the 2028 IRP.

### **C. SUPPLY-SIDE RESOURCE MODELING SCOPE**

CGA points out that IRP modeling focused on short-duration lithium-ion storage and solar-plus-storage hybrid resources. CGA expresses concern that, by not considering long-duration, multi-day, and non-lithium-ion technologies, there may be a lack of support for new and innovative technologies that could improve reliability, flexibility, and resiliency in the future. AES Indiana focused on commercially available resources in its 2025 IRP, but has received a request to consider these other technologies and will consider them further.

Moreover, CGA points out that the benefits from MISO's Long Range Transmission Plan (LRTP) were not explicitly modeled in the Reference Case. In the IRP model, the benefits of increased transmission access are reflected in the availability of new resources. AES Indiana agrees that, should transmission access significantly alter resource availability, AES Indiana will reconsider the new-build resource limits modeled in the 2025 IRP.

### **D. LARGE LOAD FORECASTING AND DATA CENTER ASSUMPTIONS**

CGA commends AES Indiana for its evaluation of numerous large-load scenarios. AES Indiana thanks CGA for its commendation; the scenarios were intended to reflect a range of potential data center outcomes. However, CGA points out that service agreements were not publicly disclosed, and such speculative large load additions may create uncertainty in near-term planning decisions.

AES Indiana has an obligation to serve customers in its service territory. AES Indiana notes that it cannot disclose all customer discussions due to their confidential nature. Modeling different load levels in the IRP allows AES Indiana to plan for potential loads and share those insights with the public without violating agreements. The decision to pursue two preferred portfolios gives AES Indiana the flexibility to choose a path that best reflects the opportunities and challenges it faces. AES Indiana believes that waiting until signed contracts are in place before planning does not provide the utility and stakeholders with the necessary transparency into its processes. The potential large load inclusion was the most significant challenge and opportunity facing the utility in its 2025 IRP.

Further, CGA emphasized caution when including actions related to the Mid Data Center Load scenario, as these actions may proceed before confirmation of large load commitments. CGA believes that this approach may increase risk for existing customers and that near-term planning actions and confirmed load growth should be consistent. AES Indiana agrees with the CGA that AES Indiana must be cautious in including

actions in the Mid Data Center Load scenario without confirmation of commitments and underscores that it will need to receive commitments before moving forward with those decisions. Commitments will be in line with the requirements of House Bill (HB) 1007. Any rates for large load customers will be filed according to HB 1007 and other necessary procedures

CGA recommends that AES Indiana file a large-load tariff with the IURC prior to submitting its 2028 IRP. New legislation (HEA 1002) sets forth updated timelines for rate cases. Additionally, as part of its pending rate case settlement, AES Indiana has agreed it will not seek to implement a change in basic rates and charges as a result of its next basic rate case prior to January 1, 2030; therefore, any large load tariff would be evaluated under required legislation and rate case at that time.

#### **4. RESPONSE TO THE CITY OF INDIANAPOLIS**

##### **A. RESOURCE MIX**

The City is aiming to reach 100% renewable energy and carbon neutrality by 2050. The City notes how the preferred portfolios do not increase wind or solar. The City would also like to see AES Indiana develop and propose a larger distributed energy program customer offering.

The preferred portfolios selected resources using a least-cost, economic dispatch model. The selected portfolios performed best across 64 model runs. Due to various pressures, including cost and availability, generic wind and solar resources were not included in the preferred portfolios. However, the portfolios serve as a compass, not an explicit map. While AES Indiana does not foresee wind and solar best serving customer needs under the Five Pillars at this time, specific wind or solar projects may be in the best interests of customers. Such analysis would be included when filing for approval of resources in other proceedings.

##### **B. LOW-INCOME PROGRAMS**

The City encourages AES Indiana to expand energy efficiency and demand-side programs, particularly for low-income consumers. Furthermore, the City would like to see AES Indiana expand its green tariff programs. The City also would like to see rate changes for low-income customers. AES Indiana will continue to evaluate its programs and offerings with low-income customers in mind.

##### **C. CAPACITY OPTIMIZATION**

The city notes that new grid enhancing technologies and energy storage can improve the capacity of existing lines. AES Indiana will continue to work internally and with stakeholders to identify and evaluate opportunities.

## **D. DATA AND METRICS**

The City requests that total greenhouse gas emissions data, including sulfur oxides, nitrous oxide, and methane, be provided, and that water consumption be included in the sustainability metrics going forward. The 2025 IRP focused on carbon emissions. AES Indiana can consider adding these metrics in future IRPs.

## **5. RESPONSE TO OUCC**

AES Indiana appreciates the OUCC review of the 2025 Integrated Resource Plan and its active participation throughout the stakeholder and technical meeting process. AES Indiana values the OUCC's input and has considered these comments in the context of the objectives, assumptions, and statutory framework governing integrated resource planning in Indiana. The OUCC submitted comments focused on the Five Pillars, forecasting, scenarios, retirements, electric vehicles (EVs), and DSM.

### **A. FIVE PILLARS**

#### **Affordability:**

AES Indiana acknowledges the importance of affordability and transparency regarding customer impacts. The IRP evaluates affordability at a system level, consistent with its planning purpose and the requirements of 170 IAC 4-7, which does not require class-specific rate impacts. Detailed allocation of costs by customer class is appropriately addressed through cost-of-service studies and rate design proceedings, where customer-specific data, regulatory review, and evidentiary development are available.

That said, AES Indiana recognizes the OUCC's interest in understanding directional affordability impacts and will consider ways to provide additional qualitative context in future IRPs. As discussed in section 10.3 of AES Indiana's IRP Vol. 1, AES Indiana may, in future IRPs, assess the value of including supplemental analyses or illustrative scenarios to further explore potential bill impacts, including high-level considerations of cost recovery approaches, rate design implications, and customer class equity.<sup>4</sup>

#### **Reliability, Resilience, and Stability:**

The OUCC raises concerns regarding transmission interconnection assumptions, the scope of frequency response analysis, and the exclusion of certain reliability attributes from the 2025 IRP reliability scoring framework.

Specifically, the OUCC wanted AES Indiana to revise and further study transmission limits (such as modeling a 50% transmission capacity limit), include a normalized

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<sup>4</sup> AES Indiana IRP Vol 1. P. 273

reliability metric in the scorecard as it did in the 2022 IRP, and further consider frequency response scenarios.

AES Indiana's reliability analysis was designed to align with current system conditions, available data, and evolving industry practices. The modeling assumptions and reliability metrics used in the 2025 IRP reflect a balance between analytical rigor and practical limitations inherent in long-term planning.

AES Indiana acknowledges that alternative interconnection sensitivities and additional reliability attributes may provide further insight into portfolio performance under extreme conditions. The Company notes, however, that IRPs are not intended to replicate detailed operational or contingency planning studies. AES Indiana will continue to refine its reliability framework over time and evaluate opportunities to incorporate additional metrics and sensitivities as modeling capabilities and industry standards evolve.

### **Environmental Sustainability and Assumptions:**

AES Indiana acknowledges the OUCC's observation regarding other regulated pollutants and notes that compliance with all applicable environmental requirements, including NO<sub>x</sub> and water regulations, is incorporated into resource cost assumptions and operational planning. AES Indiana will continue to monitor regulatory developments and assess whether additional environmental metrics would enhance future IRP analyses.

### **B. FORECASTING**

The OUCC notes that AES Indiana used statistical sampling to monitor customers' usage, and that customer exclusions may have reduced the sample size and impacted the results. AES Indiana maintains that its sample sizes are large enough to derive statistically significant results. Furthermore, the large load variations modeled between the scenarios provide insights into larger load additions. However, AES Indiana will keep these points in mind as it develops the load forecast for the next IRP.

The OUCC also notes that it is unclear whether the Carnegie Mellon study has been used in other IRPs and is not peer-reviewed. Some assumptions, such as those about electric vehicle adoption, may be overstated. For the IRP, AES Indiana used the "Low Adoption" case for both electric vehicles and distributed solar in the Reference Case, reflecting current adoption rates and the evolving landscape of federal tax credits. The Carnegie Mellon paper is officially peer-reviewed and published in IEEE<sup>5</sup>, and the study

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<sup>5</sup> <https://ieeexplore.ieee.org/document/11225027>

was a finalist for an Innovative Applications in Analytics Award (IAAA)<sup>6</sup>, placing second. AES Indiana believes that this analytical framework provides a robust forecasting method that allows it to evaluate detailed adoption patterns, which can be calibrated over time and updated to reflect technological advancements, changes in federal laws, and other socio-economic factors that could drive different adoption rates.

### **C. SCENARIOS**

The OUCC considers the Stable Markets - High Data Center Load case unlikely. AES Indiana believes there is a misunderstanding of this scenario – data center cases were added to the native AES Indiana load. For example, in the Stable Markets scenario, which uses the low load forecast for existing/native AES Indiana load as the starting point (see Table 4-2 in the Itron report in IRP Volume III). The data center load was in addition to this load. Figure 9-76 on page 210 of the 2025 IRP Volume I shows the winter firm capacity position, with a total peak load obligation of 5,000 MW, not 2,500 MW as the OUCC describes in their example.

### **D. RETIREMENTS**

The OUCC notes that the lifetimes of the Harding Street gas units have been extended compared to the 2022 IRP. This assumption was updated based on new discussions with AES Indiana internal plant staff, with a focus on the long-term operational viability of these assets. The Harding Street Steam units maintained 100% availability during Winter Storm Fern, demonstrating their current value to local grid reliability and providing low-cost capacity and energy to AES Indiana customers. AES Indiana will continue to evaluate the economic and reliability implications of operating these units and will provide additional analysis in the 2028 IRP.

### **E. DEMAND SIDE MANAGEMENT**

The OUCC commented on the DSM modeling and projections, most notably noting that significant growth is projected, yet modest capacity exists today. AES Indiana appreciates the feedback on the DSM parameters and will continue to evaluate and reconcile its forecasts with the best market intelligence.

## **6. CAC, ELPC, SUN, AND VOTE SOLAR COMMENTS Prepared by Energy Futures Group**

The CAC, ELPC, SUN, and Vote Solar submitted comments focused on the IRP process and evaluation, large-load scenarios, transmission planning, and DSM.

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<sup>6</sup> <https://meetings.informs.org/wordpress/analytics/iaaa/>

AES Indiana appreciates the review and participation of CAC, ELPC, SUN, and Vote Solar and has considered their comments in the context of Indiana’s integrated resource planning requirements.

## **A. PROCESS & EVALUATION**

### **Role of the Scorecard:**

AES Indiana evaluated portfolios across multiple dimensions, including cost, risk, reliability considerations, and environmental factors, consistent with the requirements of Indiana’s IRP rule. The scorecard reflects a subset of these results for summary purposes; it does not replace or supersede the underlying analyses presented throughout the IRP. AES Indiana believes its scorecard reflects the Five Pillars. See page 217 of the 2025 IRP Vol. 1 that shows the metrics across the categories.

AES Indiana selected its scorecard metrics not only to reflect the Five Pillars but also to capture the various load scenarios utilities face. AES Indiana presented a few metrics in both absolute and comparative terms to help compare portfolios of different sizes. For example, carbon emissions were presented in absolute and relative terms, allowing comparison of carbon portfolios across dramatically different utility future load scenarios. To avoid oversimplification, AES Indiana did not collapse disparate metrics into a single composite score or assign numerical weights across categories. Instead, each category was examined individually, recognizing that different metrics serve different planning purposes and are not directly interchangeable. As integrated resource plans have grown more complex—both in scope and in their 25-year planning horizon—boiling down all relevant variables into a single scoring framework becomes increasingly challenging and risks producing misleading or incomplete conclusions. Reliability, resilience, and stability were assessed through dedicated analyses, including probabilistic modeling and third-party studies, rather than through a single proxy metric in the scorecard. These analyses provide more meaningful insight into system performance than any individual scorecard indicator could convey and were considered alongside cost and risk results in evaluating portfolio robustness. Attempting to normalize or weight all such variables into a single scorecard could obscure important trade-offs and overstate the precision of long-term forecasts. For this reason, AES Indiana intentionally avoided presenting the scorecard as a prescriptive or optimization-based ranking tool.

The scorecard is intended to complement—not substitute for—the detailed modeling, scenario evaluation, and narrative discussion required under Indiana’s IRP framework. AES Indiana believes this approach appropriately balances transparency with analytical rigor and avoids overstating the role of summary metrics in a long-term planning exercise.

AES Indiana treats the scorecard as a decision-useful tool – not a strict ranking analysis. Portfolio selection is based on a holistic evaluation of modeling results, scenario analysis, reliability assessments, cost and risk metrics, and professional judgment informed by stakeholder input. AES Indiana remains committed to continuously improving its planning tools and presentation formats and will consider stakeholder feedback as it evaluates how best to communicate complex analytical results in future IRPs.

### **Scorecard Metrics:**

#### *Affordability:*

Similar to other IRPs, AES Indiana included the Present Value Revenue Requirement (PVRR) as a metric in the 2025 IRP. PVRR was shown for both 10-year and 25-year periods, shown in both millions of dollars and in levelized \$/MWh. The introduction of analysis of significant load additions due to data centers presented a challenge, as additional load will always lead to higher PVRR due to the additional resources required to be built, along with higher fuel and purchased power costs. Therefore, another metric was needed to provide a meaningful comparison between the data center scenarios.

The \$/MWh metric provides a useful way to evaluate the impact of portfolio costs and load growth. AES Indiana acknowledges that this metric, in and of itself, does not provide the true rate impact on individual customer rate classes. We clearly state this throughout the report and identify more detailed rate impacts as a potential improvement to future IRPs. However, this analysis provides a clear view of how the increase in costs compares with our existing system fixed costs, indicating the potential for downward rate pressure with new large loads. One key piece of information AES Indiana provided was an analysis of incremental costs by category (fuel, O&M, capital, etc.) relative to the average system costs. Our analysis showed that as long as the incremental costs are lower than the average system costs, the new load can put downward pressure on rates. The Electric Power Research Institute (EPRI), an independent non-profit industry research program, published a report<sup>7</sup> that described similar findings. As the EPRI report describes, and as AES Indiana described in the public stakeholder meetings and the IRP report, the precise allocation of costs and the potential benefits to existing customers depend on each utility's cost allocation process, including provisions for minimum demand, term length, and other factors. AES Indiana does not believe that the IRP is the best place to identify those specific items, but we will continue to look to enhance our rate and affordability metrics in the next IRP.

#### *Reliability, Resiliency, and Stability:*

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<sup>7</sup> <https://winwin.epri.com/en/load-growth-economics.html>

AES Indiana contends that Reliability, Resiliency, and Stability were adequately considered in the IRP. Multiple studies from NERC, MISO, and other entities, summarized in Figure 8-25 on page 156 of the IRP, describe how dispatchable units contribute to all three metrics. The dispatchable capacity and market exposure metrics provide clear, useful metrics that are direct outputs of the IRP modeling. It is also important to understand how AES Indiana accounts for reliability in the modeling itself, which is embedded in every model run. As described on page 155 of the IRP, these modeling constraints and assumptions meant that key reliability attributes and functions were included in the modeling:

- MISO DLOL Reserve Margins and Accreditation
- Seasonal capacity optimization reflecting MISO's reserve margin targets by season
- Market Interaction constraints in capacity expansion and hourly production cost runs
- Forced outage rates for all thermal resources
- Hourly production shapes for all renewable resources

In addition to the scorecard metrics, AES Indiana hired Quanta to conduct a reliability study, separate and apart from the EnCompass modeling. AES Indiana chose not to include the Quanta study in the scorecard for this IRP. In the 2022 IRP, the composite reliability score was only done for a single year, and that year's score was included in the scorecard. AES Indiana believes that this approach was valid in the 2022 IRP because all portfolios had the same load forecast, and the decision for Petersburg units 3 and 4 involved a single, point-in-time decision on whether to retire or convert. The scale-up of data center cases in the 2025 IRP results in multiple key resource decision time frames, leading to a more complex analysis. Singling in on 2027, 2030, or 2035 (the study years of the Quanta analysis) has the potential to oversimplify a complex portion of the study.

Even though the Quanta study was not included in the scorecard, it does not mean that the study provides no value to the analysis. In fact, it remains a key piece of the analysis, and the study provided in full for all study years provides more insight than can be gleaned from a single composite score for a single chosen year. As this stakeholder confirms, the Quanta study found that no impacts under any scenario with full import capability, which is the most likely case for AES Indiana's transmission area.

## **B. LARGE LOAD SCENARIOS**

AES Indiana would like to clarify that investments would be pursued if large-load customers commit. That rate structure and the infrastructure underpinning it would

require additional analysis, including, but not limited to, a cost-of-service study. The cost-of-service study would consider factors like allocating existing system costs to new customers. While the IRP can comment on affordability and is a precursor to a rate case, IRPs are not rate studies or rate cases. Rates are subject to stakeholder feedback and Commission approval.

The parties also voiced concern that the load forecasts were speculative. AES Indiana based its forecasts on the best available data at the time the IRP was being developed. AES Indiana is subject to confidentiality agreements, so it cannot disclose the specifics of potential new customers. AES Indiana also sought to address speculation by conducting four distinct load scenarios that accounted for a range of data center forecasts, all compared to the base forecast with no data center load.

The parties also stated that tariffs for new large loads should include protections for existing customers. Protections would be part of future rate design and subject to IURC approval through any future regulatory filing associated with a new load customer.

### **C. TRANSMISSION PLANNING**

The parties would have preferred AES Indiana to “describe how the dynamic operational characteristics of large data center loads themselves are represented in reliability studies, or whether analyses such as sub-synchronous resonance (SSR) screening or electromagnetic transient (EMT) analysis.” AES Indiana’s 2025 IRP model focused on capacity expansion and dispatch; it reflected MISO requirements for accredited capacity and AES Indiana’s requirements for energy coverage, and it assumed MISO would carry other operational obligations. In the next IRP, AES Indiana can consider its operational obligations and required analysis.

### **D. DEMAND-SIDE MANAGEMENT**

DSM comments were divided into three topic categories: Market Potential Study (MPS), Energy Efficiency (EE), and Demand Response (DR).

#### **Market Potential Study**

The Parties expressed appreciation for the stakeholder engagement process during MPS development, including the bi-weekly meetings from September 2024 to July 2025, as well as the creation of an additional bundle (Enhanced Realistic Achievable Potential), and many of their recommendations were incorporated into the MPS and IRP modeling. The Parties wanted a clearer account of which recommendations were adopted and which were not, and of how the decisions affected the IRP assumptions used.

AES Indiana takes the collaborative stakeholder process seriously and appreciates members' active participation. AES Indiana facilitated an open dialogue format in which

stakeholders could freely communicate ideas through dynamic, responsive discussions, including follow-up technical meetings and engagement with all modeling requests. In future MPS stakeholder groups, AES Indiana can establish a more documented account of all comments, discussion topics, and responses to those recommendations.

### **EE Bundling Structure**

The Parties discussed how the residential behavioral EE was not selected due to high program costs and how the bundle was combined with the Tier 1 residential bundle. The Parties recommended that the residential behavior bundle be retested as a standalone bundle.

AES Indiana initially modeled the residential behavioral EE measure costs based on historical program costs. Through stakeholder discussions and consensus, it was agreed to combine the residential behavioral EE bundle with the lower-cost residential Tier 1 bundle. Further, stakeholders presented information showing that AES Indiana program costs were higher than those of other Indiana peers for comparable products and that costs were increasing across the state.

Stakeholder consensus was to lower program costs, resulting in the final residential behavioral EE bundle decreasing from \$116.83/MWh to \$86.41/MWh compared to the initial model run. The change was not impactful enough to warrant an independent model run. Residential behavioral EE remained above IQW (\$72.73/MWh), which has historically not been selected without being forced into the model. In future IRP modeling exercises, AES Indiana will consider different bundling and modeling approaches for the respective measures and programs.

The Parties discussed the assumed cut-off point between residential Tier 1 (low/medium cost) and Tier 2 (high cost) resource bundles, and the Parties claimed that the threshold was too low. The Parties recommended that the two bundles be iteratively run with the cost threshold adjusted.

AES Indiana's initial proposal was to model each program as a distinct resource bundle since measures under each program are generally implemented together. However, as suggested by stakeholder feedback, AES Indiana modeled all residential programs under the high- and low-tier schemes. Further, the \$70/MWh (levelized) threshold between the two bundles was recommended and adopted by the stakeholder group. The recommendation by the Parties does not specify how the threshold should be determined – only that it is too low and should be increased.

In future IRP modeling exercises, AES Indiana will continue to work with stakeholders to adopt realistic modeling assumptions. AES Indiana will consider different bundling methodologies, including consideration of modeling all programs as distinct, independently selectable resources. This strategy may allow for bundle selection that

better reflects how the measures would be implemented in practice and avoids cost thresholds.

The Parties discuss how levelized cost calculations for EE bundles used a nominal discount. Parties contend that because physical energy savings do not rise with general price levels as costs do, using a nominal rate to discount kWh savings undervalues their present value and inflates the \$/MWh levelized costs for EE. Parties claim that this unfairly disadvantages EE in the IRP.

AES Indiana appreciates the stakeholders' deep understanding and collaboration in the IRP calculations. AES Indiana discussed with stakeholders how modeling DSM energy efficiency savings differently than all other resources would create inconsistency in the Encompass modeling by unfairly favoring EE bundles, and is mathematically inappropriate for LCOE values. AES Indiana explained how the recommendation of the Parties is not an appropriate assumption for the following reasons:

- 1) For the IRP modeling, AES Indiana inputs supply-side and demand-side resources as both selectable resources and uses the same modeling assumptions (e.g., using the same discount rate across all resource types) to allow for fair modeling selection. Using a different discount rate for only EE savings, rather than for all other resources, unfairly advantages EE resources.
- 2) The levelized cost of electricity (LCOE) is commonly used to compare electricity generating (or avoided generating) services. The LCOE is defined as the energy price (\$ per unit of energy produced or saved) for which the Net Present Value of the investment is zero. In other words, the cost at which electricity needs to be sold to break even at the end of the project. Importantly, it is the quotient between two Net Present Values: (1) the stream of costs discounted to the present time and (2) the stream of energy production discounted to the present time. The equation must use a uniform discount rate for the investment's NPV to be zero. Using different discount rates for only the EE savings would be mathematically imprudent. Further, commodities or services (e.g., avoided energy) are not distinct from money (e.g, costs) and a discount factor should be applied to both money and the commodity or service in question equally.

### **Enhanced RAP**

The Parties discussed the creation of an Enhanced Realistic Achievable Potential (ERAP), which postulates a potential between Maximum Achievable Potential (MAP) and Realistic Achievable Potential (RAP). The Parties argue that ERAP should be included in the primary candidate portfolio selection rather than using it as a sensitivity analysis.

AES Indiana appreciates the collaboration with the Stakeholders on novel modeling concepts. Based on stakeholder input, AES Indiana elected to conduct a sensitivity analysis of the ERAP C&I bundles.

As discussed with stakeholders, ERAP was significantly more expensive (43% increase in costs) with only a modest gain in savings (9% increase in kWh) as compared to RAP. RAP incentive levels are aligned with proven participation/savings levels and have a relatively predictable track record of achieving the RAP savings level. Further, the MPS indicates the decline of lighting as a substantial source of savings. Managing that decline while simultaneously driving an unproven level of savings would create uncertainty that AES Indiana is unwilling to adopt as the reference case for IRP modeling. Finally, a 43% increase in costs for C&I customers will likely drive them to opt out of the DSM program and jeopardize the likelihood of achieving ERAP savings. RAP incentive levels have a proven track record of achieving their savings at a cost that results in minimal increases in DSM opt-outs.

While the company is interested in expanding EE uptake - insofar as it is a least-cost resource and is cost-effective - ERAP is disconnected from historical participation and incentive rates, which are included in the RAP potential. If AES Indiana has greater potential, AES Indiana can leverage Flex Spending dollars (insofar as those are available under regulatory approval) to achieve that potential, as agreed upon through Oversight Board collaboration and process.

### **Co-Deployment and Co-Enrollment**

Parties discussed the consideration of co-deployment and co-enrollment strategies for DR products and noted that the demand reduction potential and costs for the DR products are conservative estimates of the resource potential. The Parties recommend developing a strategy within the MPS and IRP processes. It is important to note that the IRP process is distinct from DSM implementation plans. Cost optimization and co-deployment/co-enrollment strategies are developed in the DSM plan's contracting and operations plans. For IPR modeling purposes, resources must be distinct and selected individually as the least-cost resources. AES Indiana looks forward to collaborating with stakeholders and the oversight board on cost-optimization strategies.

### **TOU Design and Savings**

Parties expressed that the Time Of Use (TOU) savings potential is overly conservative. Parties claim that TOU potential is too low given the exclusion of other DR products. AES Indiana included TOU as recommended by Stakeholder feedback. The Parties' chief concerns centered on estimating the eligible population, conservative savings values, and the complexity of TOU and Time Varying Rates (TVRs), with varying benefits based on the program scheme.

The MPS process is a high-level analysis to understand the realistic achievable potential of various programs. The optimization and nuanced components of TVRs identified by the Parties are best discussed and achieved through the broader context of a general rate case proceeding, including a cost of service study and consideration of cost allocation. As distinct resources for modeling, programs with similar demand targets must have segregated customer populations to avoid double-counting benefits and costs. Conservative participation levels are appropriate given the lack of company experience for these programs. AES Indiana looks forward to collaborating with stakeholders and the DSM Oversight Board on strategies for EE and DR benefit optimization.

### **Line Loss and Underestimated DR Savings**

Parties discuss the differences between marginal line losses and average line losses, and that AES Indiana included a 1.5 factor to the system average line loss for demand, as proposed by stakeholders.

In the MPS and IRP processes, AES Indiana sourced a recent line loss study from 2021. As noted by the Parties, the company is interested in expanding its understanding of line losses and their relationship to the benefits of EE and DR, based on data from its territory. In a future line-loss study, AES Indiana may consider the concepts outlined by the Parties. Furthermore, AES Indiana also plans to submit DR resources as Load Modifying Resources (LMRs) to MISO. MISO has adapted requirements to ensure that DR resources (as LMRs) are valued based on their actual performance with evidence-based methodologies. AES Indiana plans to align its modeling assumptions with the requirements of the MISO Business Practice Manual.

### **E. DG Solar**

The parties' first recommendation was to “[a]llow DG solar and other DERs to be included as resources eligible for selection in modeling.” Specifically, the parties would like customer-sited DG solar to be modeled as a supply-side resource. In the 2025 IRP, AES Indiana worked with Dr. Shixiang (Woody) Zhu and his team from Carnegie Mellon University on the distributed PV forecasts. These forecasts were embedded into the load forecast. In the next IRP, AES Indiana can consider modeling distributed solar as a standalone resource.

### **F. DER ADOPTION**

The parties recommend that “AES work with technical experts and stakeholders to proactively plan investments in hosting and other necessary system capacity to allow DG and EV additions consistent with DER deployment targets.” The parties state that “the Company did not propose robust DER-targeted incentive frameworks and remains in an early phase of exploration.” The parties mention the “Hittinger model” and the

“dGen” model. Furthermore, the parties “would like to see the Company conduct advanced forecasting to better project the levels of DER deployment at a feeder level.” The parties also suggested including distributed capacity procurement (DCP) and virtual power plants (VPPs) in the IRP. As stated by the parties, AES Indiana did not conduct distribution system modeling; the 2025 IRP model served as a proxy for transmission system planning. AES Indiana can reflect on how this type of information could be leveraged and in what type of proceeding.

## **G. GET Adoption**

The parties note that AES Indiana did not explicitly model grid enhancing technologies as potential transmission solutions in its capacity expansion.

AES Indiana agrees with the parties’ sentiments that GETs can improve grid performance. In future IRPs, if GETs can be modeled or included in a way that would change resource selection or operations, AES Indiana will work with stakeholders on their inclusion. While GETs

## **7. RESPONSE TO HOOSIER ENVIRONMENTAL COUNCIL (HEC) COMMENTS**

### **A. ENVIRONMENTAL SUSTAINABILITY**

HEC notes that increased reliance on natural gas is inconsistent with environmental sustainability and risk management. AES Indiana believes its portfolio analysis considers environmental sustainability and risk management. AES Indiana considered two environmental sustainability metrics in its scorecard: Total CO2 Emissions (Million Tons) and Total CO2 Emissions (lb/MWh, Study Average). The first environmental metric is valuable but not sufficient; a no-data-center utility is dramatically different in size from a high-data-center utility, so to compare these two portfolios on equal footing, carbon was compared to sales. Based on the results of AES Indiana’s stochastic risk and opportunity analysis, the proposed portfolios were not materially different across the four scenarios.

### **B. LARGE LOADS**

HEC proposes that data centers should be subject to distinct and heightened regulatory scrutiny. As discussed above, large load commitments will be considered in accordance with HB 1007.

## **8. CONCLUSION**

AES Indiana appreciates the thoughtful feedback and engagement provided by stakeholders throughout the Integrated Resource Plan process. The perspectives and technical input offered through written comments, advisory meetings, and technical discussions have contributed meaningfully to the Company’s planning analysis and

ongoing evaluation of resource options. AES Indiana remains committed to continued transparency and collaboration with stakeholders and looks forward to ongoing engagement as it refines future IRPs and advances resource planning to meet customer needs in a safe, reliable, affordable, and responsible manner.