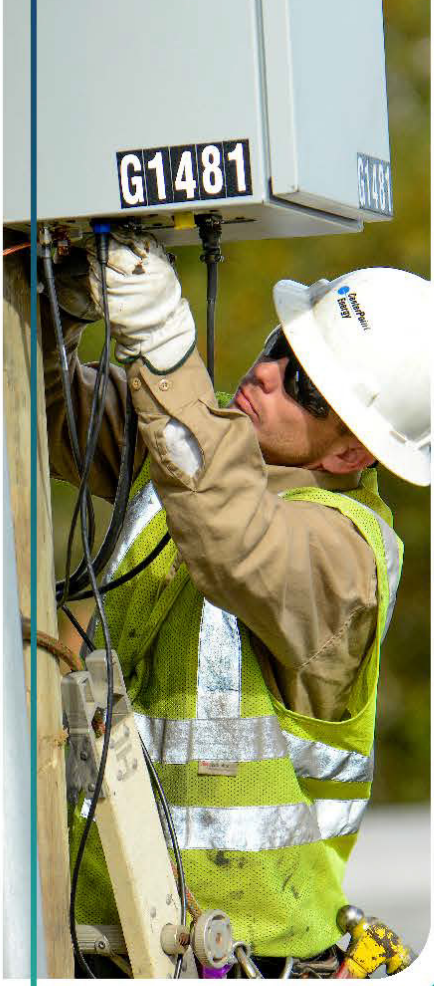

2025 Integrated Resource Plan

Response to Stakeholder Comments on CEIS 2025 IRP

CenterPoint® Energy

CenterPoint Energy Indiana South's Response to Stakeholder Comments on CEIS's 2025 Integrated Resource Plan

Submitted June 16, 2026

Introduction

Southern Indiana Gas and Electric Company, d/b/a CenterPoint Energy Indiana South (CEI South), submits this response to the Stakeholder Comments on CEI South's 2025 Integrated Resource Plan (IRP), which CEI South submitted to Dr. Bradley Borum, Director of Research, Policy, and Planning of the Indiana Utility Regulatory Commission (Commission), on December 5, 2025.

CEI South's 2025 IRP was developed to meet Indiana's IRP requirements (170 IAC 4-7-4) and aligns with the state's Five Pillars: Reliability, Resilience, Stability, Affordability, and Environmental Sustainability. The plan involved extensive stakeholder input through stakeholder meetings, written feedback, and data exchange.

CEI South appreciates stakeholders' time, participation, and thoughtful engagement throughout the 2025 IRP process. Feedback received during the IRP process was incorporated into the IRP. A few examples include development of alternate scenarios/reference case, removal of manual constraint modifications, Direct Loss of Load accreditation assumptions, and multiple sensitivities (Distributed Generation (DG) solar, resource additions, low regulatory scenario, etc.),

Stakeholder comments on the submitted IRP spanned multiple themes, including but not limited to modeling methodology and scenario design, cost and affordability, system reliability and resilience metrics, the treatment of demand-side management (DSM) and demand response (DR) resources, assumptions for prospective large loads, and environmental considerations. Again, CEI South values the input received and has reviewed and addressed many in the response below. CEI South will consider stakeholder input as we develop continuous improvement opportunities for CEI South's IRP planning process going forward.

CEI South's responses are grouped by key themes from stakeholder comments—**Five Pillars, Forecast Development, Scenario Design, Modeling, Risk Assessment and Scorecard, Demand-Side Resources/Demand Response,** and **Large Loads Considerations**—with summarized concerns and CEI South's clarifications or commitments.

Five Pillars: Affordability

Many stakeholders' comments focused on cost assumptions and affordability. CEI South's IRP process focused on balancing affordability with the other four Pillars, and several responses underscore CEI South's efforts to minimize costs while considering risk and uncertainty.

> *"Both the uncertainty of market changes and the rate impact of generation decisions on customers support a measured path forward that preserves options and allows the utility to make less risky decisions and possibly lower costs."*
>
> - Reliable Energy

Cost Assumptions

Advance Energy United and Clean Grid Alliance observed that some of CEI South's **capital cost assumptions** in the IRP (particularly for renewables and for simple-cycle gas turbines) differed from other Indiana utilities' IRPs. While CEI South cannot speak to the specifics of other utilities' processes, CEI South's IRP process relied on a market-based approach by conducting an all-source Request for Proposals (RFP) and using the resulting bids as the primary basis for resource cost assumptions.[1] A standard in Indiana IRPs, the RFP provides up-to-date market data. Where RFP data was not available, CEI South worked with 1898 & Co. to develop a technology assessment[2] that reflected preliminary cost estimates. These cost estimates represent a snapshot in time; CEI South recognizes actual costs can differ as market conditions evolve, but the IRP's estimates were grounded in real market data.

CEI South also acknowledged uncertainties in key project costs and directly stress-tested them in the analysis. For example, the IRP highlighted that the cost to convert the A.B. Brown units 5 & 6 to a Combined-Cycle Gas Turbine (CCGT) could be higher than the base estimate; therefore, CEI South **ran a sensitivity with increased conversion cost**.[3] Under that high-cost sensitivity, the **only other portfolio that approached the conversion's NPVRR (Net Present Value Revenue Requirement) was keeping F.B. Culley Unit 3 on coal, but even that remained more costly than the conversion path** (even with +30% cost). This indicates that the Preferred Portfolio (portfolio with delayed CCGT conversion) remained economically robust even when assuming higher capital costs. **CEI South's willingness to test these sensitivities addresses stakeholder concerns about optimism in cost assumptions.**

[1] CEIS 2025 IRP Volume 2 of 2, Attachment 2.1 2024 All-Source Request for Proposal & Report.
[2] CEIS 2025 IRP Volume 2 of 2, Attachment 2.2 2025 Technology Assessment Summary (Confidential).
[3] Public Stakeholder Meeting #4 - 10/23/2025, Slides 68, 73, 74.

Sierra Club provided comparisons of the cost of converting F.B. Culley Unit 3 to gas versus building new generation (A.B. Brown Unit 7), commenting that the F. B. Culley 3 gas conversion represents a relatively low-cost pathway to end coal-burning at the unit within the next 1–2 years compared to constructing a replacement resource such as ABB7. Sierra Club suggested testing a scenario that combines converting F. B. Culley 3 to gas in the near term and adding a new CCGT by the mid-2030s to see if that yields a lower NPVRR. While this suggestion was not made during portfolio development, CEI South examined two portfolios where both F. B. Culley 3 remained online (in some form of natural gas conversion) and A.B. Brown 7 was added (e.g. Portfolio 2 with a 2035 Culley 3 gas conversion and Portfolio 11 with co-firing Culley 3 – both included in the risk analysis).[4] That said, CEI South can consider Sierra Club's suggested scenario in the next IRP.

Additionally, while the Sierra Club's observations regarding the capital costs associated with converting F.B. Culley Unit 3 to natural gas versus converting A.B. Brown Units 5 and 6 to a CCGT are generally correct, those comparisons do not capture the full range of costs and benefits associated with either option. The total impact of each alternative would be reflected in the net present value of revenue requirements. Given the current level of uncertainty, CEI South elected to defer further evaluation of these options for retail customers to the next IRP.

Affordability

Hoosier Environmental Council (HEC) cautioned against focusing on near-term affordability at the expense of long-term environmental and public health goals. CEI South recognizes the need to balance the Five Pillars and therefore **weighs all five pillars equally** --- affordability is not considered in isolation, nor was affordability only viewed in the near-term. Environmental compliance costs and possible future regulatory risks were integrated into the planning. For instance, CEI South's scenarios included various cost elements for EPA Effluent Limitation Guidelines, Clean Water Act §316(b), and a proxy for greenhouse gas regulations (modeled after the Affordable Clean Energy rule).[5] Typically, EPA captures health and environmental externalities when setting requirements; these costs are therefore indirectly captured through compliance cost, ensuring that portfolios reflect not just direct expenses but also the cost of environmental impacts.

CEI South's Preferred Portfolio factored in risk and uncertainty while maintaining flexibility to pivot should the future be different than expected, rather than exposing customers to capital costs that may be delayed or avoided. In short, **CEI South balanced**

[4] CEIS 2025 IRP Volume 1 of 2, Section 4.2. Evaluation Of Portfolio Performance.
[5] CEIS 2025 IRP Volume 1 of 2, Section 3.5. Environmental Regulations.

affordability and reliability, opting for a strategy that maintains flexibility and rate stability while still moving toward cleaner resources. This approach aligns with HEC's comment to avoid "locking into" unnecessary fossil infrastructure while maintaining near-term affordability.

Five Pillars: Reliability, Resilience, and Stability

Reliability

CEI South appreciates Stakeholders' general recognition that **CEI South's plan is designed to meet reliability** – indeed, one comment noted that in CEI South's stochastic risk analysis, the worst-performing portfolio incurred only 119 MWh of unserved energy over 20 years, far better than the industry standard reliability criterion (~1 day in 10 years of outage). This indicates all portfolios exceed reliability requirements by a large margin. Reliable Energy's point, however, was that with such uniformly low unserved energy across portfolios, there is little distinction among the portfolios. They suggested either the portfolios are overbuilt or the analysis is not meaningful.

While it is correct that unserved energy results are low across portfolios, this reflects that all candidate portfolios were developed to meet planning reserve margin requirements and provide a high level of expected reliability from a generation standpoint. Portfolios were optimized to meet energy and capacity projections over a 20-year planning horizon while satisfying all known or reasonably foreseeable regulatory and market requirements under reference-case conditions. These portfolios were then tested across 200 alternative load trajectories, which included scenarios generally consistent with the reference case, as well as lower- and higher-load outcomes. Unserved energy was used in the IRP primarily as a comparative metric across similarly robust portfolios, rather than as an absolute measure of reliability risk.

The consistently low levels of unserved energy also reflect the ability of the system to access market resources, which further reduces the likelihood of load shed across the evaluated scenarios. In practice, the industry "1-day-in-10-year" standard accounts for many real-world factors (extreme weather, transmission & distribution (T&D) outages, correlated generator failures) that cannot be perfectly replicated in an IRP model; thus, it is reasonable that planning models show lower outage probabilities to ensure actual operations remain within standards. In summary, all portfolios were deliberately designed to be reliable, and differences in reliability metrics among them are inherently small because CEI South does not consider any portfolio that fails to meet resource adequacy criteria.

Resilience

Stakeholders acknowledged CEI South's enhanced T&D modeling in this IRP as a meaningful step toward addressing the resilience and stability pillars. While stakeholders appreciated that CEI South identified relevant factors such as generation diversity, fast-start capability, and spinning reserves for system resilience, there was a request for a demonstration of how each portfolio could recover from a widespread outage or emergency. CEI South thanks the stakeholders for their feedback. While the IRP is not specifically designed to test Blackstart or full-system restoration scenarios, CEI South will continue to consider opportunities to evaluate resilience in future IRPs.

Stability

> *"The detailed analysis that CEI carried out should be commended in its rigor and addressing a difficult to discuss topic (stability)."*
>
> - Reliable Energy

Stability was another area of stakeholder inquiry. The Indiana Office of Utility Consumer Counselor (OUCC) suggested incorporating additional metrics (like inertia and frequency response) and focusing on extreme events in stability assessment. CEI South's evaluated dynamic VAR support and Short Circuit Ratio under single element outage (N-1)[6] conditions, which is a standard industry criterion for assessing stability. Moreover, 1898 & Co. conducted a transmission study[7] evaluating the reliability impacts for fourteen potential resource futures against the NERC TPL-001-5 Planning Standard which requires that, for normal and contingency conditions, line and equipment loading shall be within applicable thermal limits, voltage levels shall be maintained within applicable limits. By combining these approaches – N-1 stability analysis and full transmission reliability studies – CEI South has effectively addressed stability and reliability metrics within the IRP process.

Five Pillars: Environmental Sustainability

Stakeholder comments related to environmental sustainability in the IRP largely focused on emissions accounting and the integration of environmental costs/goals. Reliable Energy commented that CEI South did not calculate "Scope 3" greenhouse gas emissions associated with fuel production and transportation. CEI South addressed this with Reliable Energy in response to Reliable Energy's data request, as well as the May 14, 2025 Stakeholder meeting[8] and the IRP.[9] Scope 3 emissions are beyond the scope of an IRP, which is centered on the direct impacts of a utility's generation operations. Scope 3

[6] CEI South 2025 IRP Volume 1 of 2, Section 2.11.3.1 Enhancements to Objectives and Metrics.
[7] CEIS 2025 IRP Volume 2 of 2, Attachment 2.3 Transmission Study (Confidential).
[8] Public Stakeholder Meeting #2 – May 14, 2025 Minutes.
[9] CEIS 2025 IRP Volume 2 of 2, Pages 611, 741, 767.

emissions are those from end-users or upstream fuel procurement; they are not directly controlled by the utility's resource decisions and thus not typically included in IRP modeling.

> *"CenterPoint's inclusion of CO_2, SOx, NOx, and 316(b) costs allows for a more comprehensive evaluation of compliance with environmental regulations than conducted by most Indiana utilities."*
>
> - OUCC

Sierra Club noted that while several environmental regulations are being challenged or relaxed at present, coal units like FB Culley 3 will continue to face environmental regulation from existing and new programs. CEI South's IRP did account for direct emissions and included environmental compliance paths within each scenario, as described earlier (e.g., CO_2 regulation cost, ELG costs). Additionally, CEI South modeled alternate paths for CO_2 within its stochastic analysis, where a CO_2 price was assumed in 50 of 200 potential future states. This approach captures a range of possible futures with consideration for various emissions and water regulations, which some stakeholders recognized as a positive improvement in aligning planning with environmental sustainability.

Reliable Energy asked for a comparison of differences in CO_2 emissions for each portfolio relative to the differences in the net present value (NPV) calculations. As well as the same approach for sulfur and nitrogen compounds. CEI South will take this suggestion into consideration as we continue to enhance our planning process. CEI South continues to monitor environmental regulations and, as it did in this IRP, will incorporate potential boundary conditions in the next IRP. However, CEI South is open to discussing and possibly incorporating such analytical perspectives in its next IRP.

Forecast, Scenarios, & Modeling

Several stakeholders offered technical feedback on CEI South's forecast, scenario analysis, and modeling methodology.

Forecast:

The OUCC questioned CEI South's forecasted load growth, stating CEI South's load trends have shown declining growth. For clarification, the difference between CEI South's load history and an IRP forecast is related to the treatment of DSM. As required in the IRP rule, demand side resources must be evaluated on an equal and comparable basis with supply side resources. As such, the effect of historic DSM must be removed from the forecast. In other words, we are required to provide a forecast that acts as if DSM never existed because history informs the forecast. This is described in section 1.2 Forecast Summary in

the Long-Term Electric Energy and Demand Forecast report provided in IRP volume 2. "While DSM activity has had a significant impact on sales, for the IRP filing, the energy and demand forecasts do not include future DSM energy savings; **DSM savings are treated as a resource on a consistent and comparable basis to supply side resources as part of the integrated resource planning process**. Excluding DSM but including the impact of future customer-owned generation and electric vehicles results in energy requirements increasing 0.3% per year, summer peak demand increases of 0.5% per year and winter peak demand growth of 0.3% per year."[10]

> *"CenterPoint appears to have adjusted its sales forecast treatment so that future energy efficiency was not embedded in the SAE load forecast and then double-counted in the resource plan, consistent with Itron guidance. CenterPoint also used generator-level savings for IRP inputs, based on a "peak system line loss rate" of 8.4% to convert meter level savings to the generator.*
>
> *That is a meaningful improvement over the use of average losses and is consistent with our prior recommendation"*
>
> - CAC / Vote Solar / Solar United Neighbors

OUCC also noted that CEI South's Electric Vehicle (EV) forecast appears overly optimistic, suggesting it overstates long-term EV penetration under current federal incentive rollbacks. They also pointed to Table 4-2: EV Impact Forecast,[11] asking about a jump in the summer peak from 1.0 MW to 6.4 MW in 2033. CEI South appreciates the OUCC's feedback regarding electric vehicles and their potential impact on the load forecast. The relevant assumptions and results are documented in IRP Volume 2, Long Term Electric Energy and Demand Forecast. As shown in Table 4 2, electric vehicles have a minimal impact on the load forecast through 2033. Even in 2033, EVs contribute only 6.4 MW to summer peak demand—approximately one half of one percent of total forecasted load—which is more than offset by customer owned solar generation. The modest increase observed in 2033 is driven by underlying assumptions in the EIA base forecast and by a change in the timing of the system peak. When the peak hour shifts, EV charging levels are higher, resulting in a larger contribution from EVs to the system peak.

[10] CEIS 2025 IRP Volume 2 of 2, Attachment 3.1 2025 CEIS Long-Term Electric Energy & Demand Forecast Report, Section 1.2 Forecast Summary.
[11] CEIS 2025 IRP Volume 2 of 2, Attachment 3.1 2025 CEIS Long-Term Electric Energy & Demand Forecast Report, Section 4.2 Electric Vehicle Energy & Load Forecast.

Scenarios:

In compliance with 170 IAC 4-7-4, Section 4, to ensure a broad range of future conditions, CEI South's IRP included a suite of planning scenarios. Each scenario reflects a distinct "worldview" shaped by key uncertainties in environmental regulation, load growth, technology costs, fuel markets, and federal policy implementation. Together, the scenarios test the durability of candidate portfolios across plausible futures rather than anchoring planning decisions to any single forecast. Stakeholder comments indicate they generally regarded CEI South's scenario process as robust. CEI South recognizes that active stakeholder engagement significantly contributes to the scenario development process.

Although CEI South encouraged stakeholder input on scenario development early in the process, some stakeholders, reflecting back, believed that certain scenarios were too narrow in scope. For example, Reliable Energy, in their April 2, 2026 comments, raised concerns that by combining coal and gas into one fuel price, every scenario has coal and gas on the same relative pricing level and argued this omits cases where one fuel is high and the other low. For clarification, CEI South modeled coal and gas as distinct inputs created independently, not a single fuel price, and therefore, the scenarios did not "tie" them together.

Stakeholders provided constructive feedback for additional modeling to bolster the IRP. This included a request to perform a probabilistic reliability analysis with a tool like SERVM to measure unserved energy and resource adequacy, possibly by modeling portfolios both with and without reliance on MISO market purchases. CEI South will continue to evaluate opportunities for continuous improvement in its next IRP.

Following submission of CEI South's IRP stakeholders also requested that the cost per ton of emissions reductions be quantified by comparing differences in portfolios' Scope 1 & 2 emissions to their NPVRR differences (e.g., cost per ton of CO_2 avoided between portfolios), and to do similarly for other pollutants. As discussed in the prior Five Pillars: Environmental Sustainability section, Scope 3 emissions are outside the scope of the IRP, as it's related to emissions of the end-user and separate from electricity generation. While this feedback is valuable for future IRPs, it would be more helpful to provide this type of feedback during the analysis; as demonstrated within scenario, scorecard, and portfolio development CEI South utilized real-time feedback to alter the course of the analysis. When feedback is received through IRP comments, it is still valuable but must be considered in its next IRP.

Modeling:
Reliable Energy questioned CEI South's stochastic analysis approach. They commented that CEI used differences among scenario forecasts to set commodity price volatility, rather than historical or implied volatility, arguing this "makes little sense" because forecast deviations do not reflect the range of actual prices. CEI South believes the selected approach provided a reasonable planning-based method for stress testing portfolio outcomes in this IRP as **our stochastic analysis was designed to evaluate long-term portfolio risk using forward-looking uncertainty assumptions** that align with the IRP's scenario framework. CEI South acknowledges that historical and market-implied volatilities can be informative, particularly for commodity-specific tail risks. CEI South can evaluate potential refinements to this methodology in future IRPs.

Reliable Energy also questioned CEI South's simulation of market power prices, which uses an intermediate market heat rate simulation combined with gas prices – the stakeholder argued this approach implicitly assumes each scenario's fuel price view is unbiased. For clarification, CEI South **developed market prices separately for each scenario using unique inputs**, and for stochastic runs it used implied heat rates to correlate gas and power prices (a common method for preserving the linkage between fuel cost and wholesale price).[12] [13] Crucially, CEI South does not assume any single scenario is a literal prediction of the future—the scenarios were designed to represent a range of plausible future conditions. The **stochastic analysis serves as a complementary tool, allowing CEI South to stress-test portfolios within a broad range of scenarios**.

Reliable Energy further critiqued the stochastic analysis for assuming 100% mean reversion and holding the portfolio static under different draws, which they felt underestimates risk by not allowing the resource mix to adapt in each simulation. However, CEI South's broader analytical IRP framework—using scenario-based analysis—did evaluate fundamental shifts that could occur over the next 20 years. For example, the High Regulatory scenario reflects a future with more stringent carbon policy (a fundamental market shift). Overall, **CEI South's approach included multiple scenarios with distinct resource portfolios, along with an extensive risk analysis (200 stochastic iterations) for each portfolio**. CEI South remains open to continued refinement of the stochastic methodology in subsequent IRPs, but it is important to recognize that the IRP is a series of complementary analyses designed to provide multiple perspectives for decision makers.

[12] Attachment 4.1 CEIS 2025 IRP Model with Scenarios & Stochastics Model (Confidential).
[13] CEIS 2025 IRP Volume 1 of 2, Section 8.4.1 Stochastics.

At the request of stakeholders, CEI South conducted an analysis focused on DG Solar scenarios. Advanced Energy United opposed CenterPoint's decision to exclude a DG incentive to reduce system load, suggesting instead that CenterPoint should consider implementing such incentives in future IRPs. They stated that a projected 137 MW reduction in non-coincident system load by 2045 is notable. However, CEI South refers to page 142 of the IRP, noting that this 137 MW from distributed generation does not align with the system's peak demand. According to the IRP, "While the incentive program would decrease energy needs, planning is still mainly driven by capacity requirements. Additionally, the cost savings from lower operational expenses were not enough to balance out the incentive program's costs; ultimately, the total expense of the optimized DG portfolio was about $10 million more than the Reference Case portfolio."[14] In summary, the incentive program increased overall costs without delivering significant benefits for planning or capacity.

> *"...we acknowledge and appreciate CenterPoint's willingness to engage with stakeholders on DER-focused strategies in their most recent IRP..."*
>
> - CAC / ELPC / SUN / Vote Solar

Risk Assessment & Scorecard

Risk Assessment

Citizens Action Coalition (CAC), Solar United Neighbors (SUN), and Vote Solar contended that CEI South's modeling indicated "willingness to pay capacity penalties" since some scenarios had capacity shortfalls. CEI South would like to clarify that the IRP model was allowed no more than 50 MW of short-term market capacity purchases per year after 2034 (far below the Planning Reserve Margin Requirement), explicitly to limit exposure to MISO's capacity market risks. Allowing the capacity expansion model to source a small amount of market capacity simply helped optimize the timing of new builds; it does not indicate any intent to incur deficiencies or penalties.

Reliable Energy requested more detail on market purchases and sales in terms of volumes, average price and economic value added – versus if the market is "turned off" and CEI compensates for the lost market generation using its own resources. During October 23rd Stakeholder Meeting,[15] CEI South shared that the stochastics varied the market sales limits between 660MWs, 330MWs, and 165MWs. CEI South will continue to work with stakeholders to evaluate potential alternate methodologies in future IRPs.

[14] CEIS 2025 IRP Volume 1 of 2, Section 4.1.1.1.3. Distributed Generation Resource Portfolios.
[15] Public Stakeholder Meeting #4 – October 23, 2025, Slide 58.

Scorecard

Reliable Energy recommended that CEI South clarify how scorecard metrics are applied in portfolio decisions, suggesting explicit weighting for criteria like affordability, environmental sustainability, and risk. In response, CEI South would like to note that the scorecard is a tool designed to evaluate tradeoffs across several key risks - it does not produce a definitive answer. Rather, it provides CEI South with information to be considered alongside qualitative analysis and sensitivity results. Applying explicit weightings would imply that the scorecard can generate a single outcome that narrows the field. However, stakeholder views on the relative importance of different risks vary significantly, and no common set of weightings exists.

> *"CEI wisely supplements the traditional IRP scenario analysis performed by utilities with additional decision-focused scenarios. In general terms, an IRP is less of a year-by-year generation plan, than a set and sequence of decisions that a company is likely to face, often well before an actual generator is connected to the grid. By adding more specific analysis that sheds light on the nearer term and significant long-term decisions, CEI adds rigor and substance to its analysis."*
>
> - Reliable Energy

Reliable Energy noted that relying on the 5% and 95% confidence levels of each portfolio's NPVRR distribution does not provide meaningful differentiation between portfolios. They commented that any simulation analysis is only as robust as the assumptions underpinning it: if those assumptions are flawed or lack sufficient substantiation, the resulting outputs offer minimal practical value or insight for decision-making. CEI South included the 5th percentile of NPVRR in response to a comment in the draft 22/23 CEI South IRP Director's Report. In that report, the Director suggested that the 5th percentile could provide insight into scenarios where portfolio costs may be lower, thereby capturing potential upside opportunity in addition to downside risk. Together, these metrics complement the average NPVRR and help CEI South assess low-probability, high-impact outcomes across portfolios.

Additionally, Reliable Energy felt the Energy Burden Metric lacked appropriate context and relied on forecasted income. They also commented that it only reflects cost increases relative to recent high inflation, potentially skewing baseline comparisons. They believe NPVRR alone does not fully capture affordability or rate stability; it should be supplemented with rate impact analyses to assess the immediate effects on customers.

CEI South considered affordability from many angles, not only through long-term NPVRRs (stochastics, scenarios, and multiple sensitives), it also considered near and mid-term

impacts to show when costs occur. During the stakeholder process, Reliable Energy requested that CEI South evaluate additional measures to better assess affordability. CEI South addressed this request by calculating 5-year and 10-year incremental electric bill impacts to illustrate the near-term and mid-term affordability impacts of each portfolio. While these impacts were expressed as energy burden measures in the scorecard at stakeholder request, that approach did not preclude CEI South from also considering the underlying bill impacts themselves. As stated in the CEIS 2025 IRP Volume 1 on page 50, "Ultimately, near- to mid-term affordability proved to be one of the key differentiators in the selection of the 2025 Preferred Portfolio."[16]

Demand-Side Management (DSM) & Demand Response (DR)

Stakeholder feedback on DSM and DR centered on **modeling integration, cost-effectiveness calculations, and transparency of assumptions.**

Demand-Side Management

Reliable Energy emphasized that energy efficiency (EE) and DR should be modeled concurrently with other resources in the portfolio optimization to ensure the optimization fully considers DSM potential. They also cautioned that avoided cost calculations used to screen DSM should be properly adjusted for differences in capacity accreditation among resource types. CEI South agrees with stakeholders that ensuring an unbiased comparison is crucial. **CEI South modeled EE and DR resources on a consistent and comparable basis alongside supply-side options.** The resource optimization runs allowed DSM bundles to compete directly with generation alternatives.[17] Further, CEI South did not "penalize" DSM in cost-effectiveness tests by reducing avoided costs for capacity differences. The cost-effectiveness outputs[18] were calculated at face value, not adjusted downward for lower accreditation.

> *"...we commend CenterPoint for its increased emphasis on energy efficiency and demand response. These resources are among the most cost-effective tools available to reduce system costs, lower customer bills, and improve grid reliability...We commend CenterPoint for expanding this program in the near term."*
>
> - Hoosier Environmental Council

The IRP's Preferred Portfolio includes significant DSM and DR, accounting for 46 MW of capacity in the first year of the study period and increasing

[16] CEIS 2025 IRP Volume 1 of 2, Page 50.
[17] CEIS 2025 IRP Volume 2 of 2.
[18] CEIS 2025 IRP Volume 2 of 2, Attachment 8.1 2025 MPS Slide Decks for Stakeholders; Demand Response Cost-Effectiveness, Page 1055.

steadily to 156 MW by 2045[19] and demonstrating that these resources were allowed to contribute fully where cost effective. Any comparison of the first year DSM and DR amounts to EE DSM Plans must consider both DSM and DR to be consistent on a comparable basis. If any methodological improvements are identified (for example, applying expected accreditation explicitly in future avoided cost projections), CEI South will evaluate those for the next IRP, but the current IRP's DSM integration was materially concurrent and fair.

CAC and other stakeholders focused on how DSM bundle costs and impacts were derived, and whether stakeholders had access to validate these inputs. They pointed out a specific threshold—$70/MWh levelized cost cut-off between residential Tier 1 (low/medium cost) and Tier 2 (high cost) measures—and wanted to ensure levelized cost calculations were done correctly. They cited potential pitfalls such as discount rate selection, failing to account for post-horizon savings, and ignoring T&D benefits. They also pointed out a concern with bundling Tier 1 and Behavioral savings into a single bundle.

CEI South would like to note that the DSM Market Potential Study (MPS) models and data were shared with stakeholders (specifically the DSM Oversight Board)[20], enabling them to independently calculate levelized costs. CEI South is open to discussing more opportunities to collaborate in the next IRP but believes the data provided (including MPS models, and an Enhanced RAP scenario collaboratively built with stakeholders) provided sufficient transparency for review.

Regarding the questions of levelized cost miscalculation, CEI South discussed the discount rate with the Oversight Board (OSB) in February 2025. Long-term savings beyond the 20-year IRP horizon were accounted for by using incremental annual savings, the weighted average useful life, and the levelized cost of the lifetime savings (ensuring full measure life benefits are credited). T&D benefits were netted out of DSM costs, which CAC explicitly acknowledged as an improvement in this IRP.

Addressing stakeholder questions about the inclusion of Behavioral measures in Tier 1 bundling, CEI South supplied the Residential Tier 1 bundle levelized cost both with and without behavioral components. CEI South demonstrated that bundling behavioral measures separate from Tier 1 would lead to a significant decrease in savings. The OSB agreed to mapping behavioral with Tier 1 and the slide explicitly stated that "Residential

[19] CEIS 2025 IRP Volume 1 of 2, Section 5.1.1 Description of the Preferred Portfolio.
[20] The Oversight Board comprises CEI South, the OUCC, and CAC.

behavioral will be grouped with Tier 1". The OSB agreed to the approach and never requested separate modeling that we highlighted as an option.[21]

In sum, stakeholder concerns about DSM cost calculations were addressed directly with stakeholders during the process, and CEI South demonstrated that it had already accounted for the three major factors (discount rate, full lifetime, T&D benefits) in its methodology.

Advance Energy United recommended that CEI South continue to refine methods to consider avoided transmission & distribution costs within IRP modeling for DSM. CEI South agrees, and it already makes adjustments to DSM resources to account for T&D, thereby putting them on a comparable footing with generation.

Stakeholders asked for clearer reporting of which DSM bundles were selected and the total MW of DSM in the Preferred Portfolio. CEI South acknowledges this as an opportunity for improvement. While the total contribution was not summarized, the IRP did include a comprehensive list of all DSM bundles offered to the model[22] (see IRP Volume 1, Figure 4-2, listing each bundle and characteristics). CEI South commits to providing a clearer summary of total MW of DSM selected within each portfolio in future IRPs.

Demand Response (DR)

Non-residential DR potential was a significant discussion point. CAC questioned why CEI South relied on a single third-party DR Aggregation program bid to estimate potential, rather than including common non-residential DR options like interruptible rates in the initial potential analysis. They feared a single bid may underestimate DR potential and suggested limited transparency around the aggregator's assumed technology and uptake. CEI South notes that several interruptible DR products requested by CAC duplicate those already covered by the third-party DR Aggregation program—all commercial and industrial customers can participate in the aggregator's program. Rather than model redundant programs, CEI South chose to focus

> *"We appreciate several improvements in how CenterPoint treated Demand Response in the 2025 IRP, including increasing the granularity of DR Bundles (from 5 to 13) and revisions to the line loss factor used to convert savings from the meter to the generator."*
>
> - CAC / Vote Solar / Solar United Neighbors

[21] CEIS 2025 IRP Volume 2 of 2, Attachment 8.1 2025 MPS Slide Decks for Stakeholders; Levelized Cost of Energy – RAP and Enhanced RAP, Page 1101.
[22] CEIS 2025 IRP Volume 1 of 2, Section 4.1.1.1.2 Demand Side Management Deterministic Runs; Page 141, Figure 4-2.

on the aggregator's offering as a broadly inclusive DR option. Details about the aggregator program were provided to CAC and included a comprehensive data response describing the DR aggregation program's design, target markets, and included technologies.[23] Additionally, CEI South believes that an aggregator can better serve our customers by providing a tailored solution to fit their business needs. CEI South therefore applied focus to this path and less focus on tariffs that have been traditionally underutilized.

The anticipated DR potential included in the IRP was based on a study performed by the selected aggregator, which showed *higher* potential in CEI South's territory than GDS had modeled for other utilities. Thus, CEI South reasonably relied on the aggregator's expertise for realistic DR levels and performing a separate, duplicative potential study was unnecessary.

CAC, ELPC, SUN, and Vote Solar noted that other Indiana investor-owned utilities have evaluated time-varying rates (TVRs) such as Time-of-Use (TOU), Critical Peak Pricing (CPP), and Peak Time Rebate (PTR), and in some cases found these options to be cost-effective. They requested that CEI South assess TVR offerings beyond its current TOU/CPP pilot—including standalone TOU rates and PTR options—at scale in the MPS/IRP. Stakeholders further recommend that CEI South develop a robust, program-by-program co-deployment strategy across EE, DR, TVRs, and Distributed Energy Resources (DERs), including marketing and delivery touchpoints designed to increase enrollment in enabling technologies and improve load-flexibility adoption and cost-effectiveness, while transparently avoiding double-counting across overlapping rate and program offerings.

CEI South appreciates stakeholders' recommendations regarding broader evaluation of TVRs and coordinated deployment of EE/DR/TVR/DER offerings. With respect to comparisons to other Indiana utilities, CEI South notes that while another Indiana utility evaluated PTR, TOU, and CPP, its Market Achievable Potential (MAP) and Realistic Achievable Potential (RAP) results did not include all options in both cases (MAP included TOU and CPP, while RAP included PTR—an opt-out design that assumes materially higher participation than an opt-in offering). In the 2025 IRP/MPS, CEI South screened a range of DR and TVR options and shared cost-effectiveness results with stakeholders; most emerging DR products did not pass the Utility Cost Test even when incentives and adoption assumptions were varied, reflecting low technology saturation and participation barriers in CEI South's service territory.[24] Accordingly, CEI South selected a measured TVR path forward centered on its ongoing TOU/CPP pilot and modeled C&I TOU with CPP, which

[23] CEIS 2025 IRP Volume 2 of 2, Attachment 8.2 2025 DSM Data Requests and Responses; Page 1111.
[24] See fn 16 above.

was selected in the Preferred Portfolio. CEI South did not include additional residential TVR designs at scale absent pilot performance data, and PTR remains a customer-specific construct that is difficult to generalize and may require billing system upgrades. Finally, CEI South remains mindful that simultaneously offering multiple overlapping TVR designs can risk "pancaking" (double-counting) demand reductions and overstating achievable impacts; therefore, CEI South continues to actively evaluate TVR/DR offerings in a manner intended to avoid duplication while identifying the most cost-effective, scalable options for customers.

CAC, ELPC, SUN, and Vote Solar requested that CEI South update the 2025 IRP to include a comprehensive analysis of Virtual Power Plants. CEI South recognizes that Virtual Power Plants can benefit utilities with high DER adoption and saturation. In the 2025 IRP, CEI South modeled Solar DG sensitivity, EV Managed Charging, Battery Storage, Grid Interactive Water Heaters, and established DR resources like smart thermostats. All resources were included in the MPS and IRP inputs. However, CEI South assumed that grid-enabled water heaters and smart thermostats are being installed via the customer, typically through the EE program. Thus, the full cost of installing the device is not included in the DR program and is improving cost-effectiveness. EE thermostat participation counts were examined to ensure that they are aligned with DR participation counts. MPS cost-effectiveness screening found that only existing DR programs and C&I Grid Enabled Water Heaters passed the Utility Cost Test. The IRP model was allowed to select all DR resources regardless of cost-effectiveness, and only C&I Smart Thermostats were chosen as a new DR product. We then worked with 1898 to increase and decrease incentives and corresponding adoption rates which yielded less cost-effective values. Due to the low market saturation and incentive levels to drive significant adoption, these DR products will not be selected as standalone DR products much less when grouped together with other cost-effective DR products such as smart thermostats. Adding significant MWs for these technologies in the 2025 IRP would not be reflective of CEI South's market reality.

Where contractual or practical limits affected DR, CEI South has been transparent. For example, CAC inquired about line loss factors assumed for DR resources (they were initially set at 4.2% and later updated to 8.4%), CEI South provided this clarification during the 9/11/2026 stakeholder meeting[25] and included in the IRP.[26] The line loss factor was updated to 8.4% based on the latest line loss study (grossed up to ~9-10% for peak conditions).

[25] CEIS 2025 IRP Volume 2 of 2; Page 867.
[26] CEIS 2025 IRP Volume 1 of 2, Section 3.7.2.10.2. Energy Efficiency – IRP Reference Case.

Overall, CEI South has demonstrated a willingness to share data and refine DR modeling and will continue to engage the DSM Oversight Board and stakeholders on program design and assumptions for demand response in future IRPs.

Large Load Considerations

With stakeholder support and recognition of the impact of new large loads, CEI South conducted sensitivity analyses and a full Alternate Reference Case scenario to address high load growth.

> *"We also appreciate CEI South's sentiment regarding affordability for existing customers and minimizing future cost risk in the case that such large load customers do emerge."*
>
> - CAC / Vote Solar / Solar United Neighbors

Despite general stakeholder support for consideration of large load in this IRP, some stakeholders requested that CEI South refrain from advancing prospective large-load projects until the scale/location are studied and any required transmission or generation mitigations are identified and placed in service. CEI South agrees with the underlying objective—ensuring reliability and readiness—and clarifies that any prospective large-load customer would be subject to separate interconnection and regulatory approvals. CEI South further agrees that any required mitigations should be online prior to a large-load customer reaching in-service status and notes that internal feasibility and engineering studies are conducted as an initial step in that process.

CEI South would like to reiterate that **the Alternate Preferred Portfolio is not a commitment, but a possible path to meet large load needs through a mix of resources while maintaining reliability.** The resource mix will be heavily influenced by a potential customer's need for low-cost power, along with other criteria important to the prospective customer. CEI South will work to prioritize affordability for its existing customers and minimize future cost risk should conversations turn into negotiations/contracts.

Load Assumptions

Reliable Energy suggested additional modeling of discrete high-load trajectories (e.g. +25 MW/year, +50 MW/year, +100 MW/year) to see what thresholds would trigger resource changes. CEI South could examine alternative ramp rates (like 25 or 50 MW/year); however, CEI South conducted targeted sensitivities and developed an Alternate Reference Case with incremental load, informed by direct discussions with prospective large customers. Prospective customers have not indicated interest in smaller increments to date. Importantly, across multiple scenarios, including two with load

materially higher than the reference case, the modeling consistently chose to convert the two new A.B. Brown CTs to a combined-cycle unit, with only the timing differing. CEI South's evaluation suggests that lower "large load" levels would not fundamentally alter the plan's direction, though it stands ready to refine assumptions if smaller increments become relevant.

Some stakeholders questioned the validity of CEI South's generic large load blocks and ramp assumptions. CAC/Vote Solar/SUN commented that the IRP provided three generic large load sensitivity blocks without citing specific validation, and that assuming immediate full-capacity operation of a new industrial load is "out of step" with typical ramp-up patterns. This assessment does not align with CEI South's Alternate Reference Case which does include a ramp (the 250 MW/year growth profile), not an instantaneous jump, and that ramp was developed based on discussions with potential customers. As explained during the March 19, 2025,[27] [28] May 14, 2025,[29] and October 23, 2025[30] stakeholder meetings, the magnitude and pacing used were intended to be indicative of potential large load additions. Confidential details were shared in a technical meeting (April 28, 2025) to substantiate these assumptions. Given that, CEI South believes there was sufficient basis and documentation for the high-load sensitivity levels chosen.

Cost Assumptions

Advance Energy United raised concerns about how costs associated with large new loads are represented in the IRP, noting that the extensive transmission upgrade costs identified in the separate Large Load Study were not directly factored into the NPVRR of portfolios. They worried this could undermine transparency around customer affordability if significant costs are excluded.

CEI South incorporated transmission-related costs and constraints where resource locations and system impacts were known in modeling; however, the Alternate Reference Case wasn't tied to a specific site or point of interconnection, so the truly site-specific upgrade costs (which vary materially by location) were not embedded in NPVRR calculations. Instead CEI South chose to present the results separately rather than assigning speculative transmission costs to a portfolio based on an unknown load location. The Large Load Transmission Study showed a wide range of potential outcomes. In some locations, a large load could be added with minimal upgrades, whereas in others major reinforcements or even feasibility concerns were identified. This approach avoids

[27] Public Stakeholder Meeting #1 – March 19, 2025 Presentation; Slides 39 and 40.
[28] Public Stakeholder Meeting #1 – March 19, 2025 Minutes.
[29] See fn 8 above.
[30] Public Stakeholder Meeting #4 – October 23, 2025 Presentation; Slide 63.

potentially overstating costs to all customers for a load that is still uncertain, while informing stakeholders and regulators of the possible magnitude of upgrades if/when a large load materializes.

Resource Mix

CAC raised concerns that internal discussions may favor generation solutions even where a transmission upgrade could appear more cost-effective.

CEI South acknowledges the concern; however, for certain large-load situations, adding synchronous generation (e.g., a combined-cycle gas turbine "CCGT") can provide system benefits that extend beyond simple capacity delivery, particularly for a transmission system undergoing a generation transition. Synchronous generation, such as a CCGT, helps provide steady-state and dynamic reactive power and voltage support for the area. Additional benefits these generators provide are system stability needed for transient conditions, reliable protection system operation via short circuit contributions, ability to support transmission system stability and improve power quality. The interconnections of the future generation and Large Loads are limited to known locations across our system where capacity is available. **Given the unknown load profile that a Large Load may have, generation would better support harmonic/subharmonic injection from the load as well as load ramp rate**, which contributes further to transmission system stability. Furthermore, in certain situations, the transmission option results in additional transmission costs plus costs associated with on- or off-system generation needed to meet the energy and capacity needs of the large load.

Stakeholders, such as the HEC and Sierra Club, suggested that serving speculative data center loads with new fossil resources should be scrutinized. In response, CEI South would like to clarify that the IRP is agnostic to the specific industry or origin of potential large loads: it treats increased demand neutrally and looks for the optimal method to serve it. The alternate scenario was representative of multiple inquiries across industries. Importantly, the future of F.B. Culley Unit 3 will be re-evaluated in the next IRP.

Closing

CEI South's 2025 Integrated Resource Plan reflects a **comprehensive, data-driven, and iterative planning process** designed to evaluate the optimal mix of resources to serve customers over the long term. CEI South's IRP incorporates real-world inputs, multiple planning scenarios, probabilistic and sensitivity modeling, and a structured scorecard framework aligned with Indiana's Five Pillars. The resulting plan represents a robust

analytical foundation developed to perform across a broad range of plausible future conditions.

Equally important, CEI South's IRP was developed through **extensive and meaningful stakeholder engagement**. As reflected throughout this document, CEI South incorporated stakeholder feedback directly into the IRP itself, including enhancements to scenario design, removal of manual constraint modifications, development of additional sensitivities, and refinement of demand-side and reliability analyses. CEI South will continue to evaluate opportunities for refinement and enhancement in future IRPs.

As reflected in this document, potential areas for continued evaluation may include, but are not limited to:

- **Scenario design and modeling enhancements**, including potential refinement of probabilistic reliability approaches and stochastic assumptions
- **Large load forecasting and system impact analysis**, including transmission requirements and cost implications as additional information becomes available
- **Demand-side resource evaluation**, including continued collaboration on energy efficiency, demand response, and emerging program constructs such as time-varying rates or co-deployment strategies
- **Environmental and emissions analysis**, including evaluation of additional metrics or analytical approaches as consistent with IRP scope and feasibility
- **Market and risk assessment methodologies**, including continued refinement of how tradeoffs among cost, reliability, and risk are evaluated and communicated
- **Stakeholder engagement practices**, including continuing to encourage stakeholders to provide their feedback during the planning process, as input received during planning, rather than after submission, is essential to ensure it can be meaningfully considered

CEI South emphasizes that these items reflect **opportunities for continued evaluation**, and not commitments to specific outcomes, resource decisions, or modeling approaches. Future considerations will be assessed based on evolving market conditions, regulatory requirements, stakeholder input, and customer needs at the time of the next IRP.

CEI South sincerely thanks all stakeholders—including customers, Office of Utility Consumer Counselor, advocacy organizations, and Commission Staff—for their time, engagement, and constructive feedback. This collaboration strengthened the quality and transparency of the IRP and remains a critical component of CEI South's planning process.