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STATE OF INDIANA
INDIANA UTILITY REGULATORY COMMISSION

INDIANA MICHIGAN POWER COMPANY
COMMENTS
ON
THE DIRECTOR'S DRAFT REPORT
FOR THE COMPANY'S 2021
INTEGRATED RESOURCE PLAN

Submitted to:

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Introduction

Indiana Michigan Power (I&M) submitted its 2021 Integrated Resource Plan (IRP) on January 31, 2022, pursuant to Rule 170 IAC 4-7, Guidelines For Integrated Resource Planning by an Electric Utility. Numerous individual, organizational, and governmental stakeholders participated throughout the IRP development process and submitted comments in response to I&M's IRP filing. On May 9, 2023, the Indiana Utility Regulatory Commission (IURC or "the Commission") Electricity Division Director submitted a draft report (Director's Draft Report) regarding I&M's 2021 IRP. I&M appreciates the instructive guidance offered by the Director's Draft Report and the significant effort by the Director and the Staff to create the Draft Report. Please accept these comments in response to the Director's Draft Report and stakeholder comments that were discussed in the Director's Draft Report.

I&M's Next IRP

I&M's management uses the IRP as an important planning tool and guide for assessing the energy and capacity needs of I&M's customers, along with the resources that may be used to meet those needs and how those resources may change in the future. The comments received from the Director and the stakeholders recognize the importance, complexity, and evolving nature of the IRP regulatory review process.

The IRP process reflects a balancing of a diverse set of stakeholder interests, state and federal policies and goals, and needs and goals unique to I&M and its customers. While there are and will continue to be certain limitations inherent to the IRP process, I&M is committed to working with stakeholders to continue to evolve and optimize the process and plan. The comments received from the Director and stakeholders clearly recognize the industry as a whole is changing rapidly and there are different views on how these changes will materialize and what the preferred resource plan should include. Inevitably, there will be differences that arise in the Company's implementation of future resource decisions as market factors change from IRP assumptions, but that doesn't discount the value the IRP process provides to informing the steps taken and the decisions made to ensure I&M is able to continue to provide customers with safe, reliable, and affordable power. However, that reality does underscore the fact that in order to best manage change for the benefit of customers, utilities require maximum flexibility to address ongoing resource requirements and take into consideration changes in the market, Regional Transmission Organization (RTO) policy changes,

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and federal and state legislation. I&M appreciates the Directors recognition of the importance of this reality and the need for balance between IRP plans and future resource decisions.

I&M appreciates the engagement and interest of the participating parties and the feedback that has been provided throughout this process. As I&M looks to continually improve its IRP and incorporate the input of its stakeholders, I&M is already planning to undertake the following steps in the preparation of its next IRP:

- Continue to work with stakeholders to optimize the evaluation of demand-side technologies;
- Further explore and adopt new methods to evaluate changes in future load requirements, including factors influencing both the amount and timing of customer load requirements;
- Continue to evaluate the integration of transmission, distribution and demand-side solutions in the IRP process considering current RTO policies and industry practices.

As discussed further in this document, many of these steps are responsive to and supportive of the Director's Comments. The commitments related to its next IRP will help move the discussion forward produce meaningful studies for the consideration of how best to serve the Company's customers over the planning period.

I. RESPONSE TO DIRECTOR'S DRAFT REPORT

Inherently, an IRP represents a snapshot in time. I&M's 2021 IRP is a reflection of the best information available at the time it was prepared. As recognized by the Director and stakeholders, I&M is in the midst of a major generation transformation as Rockport Unit 1 will retire by the end of 2028, and Rockport Unit 2 is fully removed from the Company's capacity plan after the PJM 2023/2024 Planning Year. In total, Rockport represents nearly one-half of I&M's generation fleet and presents both a significant opportunity and an obligation for I&M to transition its fleet in a way that supports affordability, sustainability, reliability and resource diversification for I&M's customers in the future. Because changes that may impact this IRP can, and do, occur without notice, this IRP must be flexible and not be considered a commitment to a specific course of action. The implementation action items as described in the IRP must be subject to change as new information becomes available or as circumstances warrant. As an example, since I&M completed its 2021 IRP, there have been several factors which are influencing the availability and cost of supply-side resources. These factors include changes in federal laws and tariffs, supply chain and labor constraints, and reforms to RTO interconnection procedures. It is imperative that I&M is able to

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utilize its IRP to inform how it navigates these changes but also that the IRP does not become a constraint to action. I&M has an obligation to serve which necessitates the need to move forward beyond planning and take action to ensure it maintains its ability to meet the needs of its customers. In recognition of this, I&M utilizes a robust all-source competitive procurement process that compliments the IRP process. I&M appreciates the Directors recognition of these realities and the need for maximum flexibility to provide balance between IRP plans and future resource decisions.

The following sections provide I&M's responses to each of the comments and questions identified in the Director's Draft Report.

A. Load Forecasting

a. Comments on Load Forecasting (Director's Report pp. 4-6)

Director's Comments: *I&M's forecasting methodology appears to be reasonable and sound overall and has not changed in any significant way since the 2018 IRP. Load over the planning horizon is a large and significant source of uncertainty for any electric utility, given the potential for changes driven by EV adoption, the spread of DERs, and the likely increasing electrification of end-use consumption across customer classes. I&M recognizes this by developing several different load forecasts that are bounded by a high economic growth and a low economic growth scenario. These uncertain drivers are not likely to cause large changes in load over the next several years, but longer term the potential is considerable.*

However, it appears that all 14 portfolios are based on the base load forecast, including the three optimized scenarios. No optimized scenario appears to have been based on a high- or low-load forecast. The Director recognizes that the impact of higher load, for example, will play out over time with relatively small impact on resource choices over the next few years. Nevertheless, it would have been informative to understand how sensitive the level of resources to be acquired over time is with different load forecast assumptions.

Some additional thoughts:

- 1. I&M states that the long-term residential models are 30-year monthly models that are driven by economic and demographic variables. It seems unlikely that projections for explanatory variables are available (or would be credible) on a monthly basis for 30 years. It seems more likely that the models use annual projections, and the monthly forecast is derived from the annual numbers. I&M uses binary variables to capture monthly variations in customers. (See I&M IRP, Customer Forecast Models, pp. 36 -37)*

I&M's response: The Company utilizes monthly forecasts for income, population, households, and housing stock produced by Moody's Analytics. Some drivers have a seasonal pattern applied to them in the Statistically Adjusted End-Use (SAE) process, such as saturation and efficiencies. The SAE process ultimately models monthly energy with a combination of the various drivers.

Notwithstanding, the Company acknowledges the Director's comments and will plan to evaluate the optimized resource selections under different load forecast assumptions in the next IRP.

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2. *I&M states that weather drivers are assumed to be normal for the forecast period, but they do not state what was used for normal weather. (See I&M IRP, p. 43)*

I&M's response: The Company uses a thirty-year average of heating and cooling degree days for weather normal.

3. *I&M for this IRP presented several load forecast scenarios with different adjustments (e.g., No new DSM, EE 2021 scenario, EE extended scenario, Base case, etc.) What are the benefits of considering these various load forecast adjustments? How were these forecasts used? Were the forecasts developed to provide a better understanding of the sensitivity of the load forecast to changes other than for high and low economic growth?*

I&M's response: The extreme weather scenario was developed in response to questions raised in a past stakeholder meeting about a Purdue University paper (Indiana's Past & Future Climate: A Report from the Indiana Climate Change Impact Assessment, March 2018) on forecast climate change impacts. The EE 2021 scenario enables us to evaluate the impacts from appliances and equipment energy efficiency on the load forecast. The No New DSM scenario illustrates what the load forecast would be like without any further DSM impacts. The Extended EE scenario is helpful for identifying impacts from potential government mandates that increase the energy efficiency standards in the future. The DSM load forecast were prepared as sensitivities to the Companies load forecast. The key scenarios are the High and Low Economic Growth forecasts, which bound the range of expected future outcomes. The Company expects that reasonable scenarios will fall within this bandwidth.

B. Demand Side Management (DSM)

a. Comments on DSM (Director's Report pp. 6-9)

Director's Comments: *The Director appreciates the collaborative effort used by I&M and GDS Associates to develop the MPS. Based on comments by other stakeholders, it is clear that I&M and GDS listened to the suggestions provided by the other stakeholders and included a number of suggestions into the MPS development process. Also, the Director supports I&M's inclusion of avoided T&D costs in the MPS evaluation of DSM measures and the IRP modeling.*

Questions

- *The EE savings estimated with the Net-to-Gross EE bundle approach show higher EE capacity additions in the alternative portfolios for the period 2029-2041 than in the reference case portfolio that uses the SAE factor approach. Since there were already some refinements applied to the original Reference Case to get the Preferred Portfolio, why not consider the addition of more savings identified with the NTG approach? Why was the NTG approach not the main approach to be used for all the portfolios instead of the SAE approach?*

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I&M's response: Although the NTG approach identified more cumulative savings than the SEA approach, the NTG approach used in certain portfolios introduced inconsistency with the assumptions included in the Company's load forecast that already accounts for some energy efficiency. This inconsistency results in some degree of double-counting for certain levels of energy efficiency, and as a result, the Company chose to maintain consistency between the load forecast and the EE included in the load forecast by using the SEA approach. Given the stakeholder interest in using a different approach for modeling EE, the Company committed to adjust its load forecasting methodology to be consistent with the use of an NTG-like approach for EE resources in future IRPs.

- *What drives the decline of the EE capacity expansion plan of the Preferred Portfolio and other alternative portfolios beyond 2034 (Exhibits C-1 through C-16)? Is it expected the EE programs to achieve their cumulative maximum capacity savings in that year?*
- *What is the reason for the DSM/EE energy and demand savings to decline to zero by 2037 (Exhibit A-12) and then show an increase in savings starting in 2038? A similar pattern is observed with the summer and winter demand savings. Furthermore, the demand savings do not seem to change consistently with the increase/decrease of the DSM/EE energy savings numbers.*

I&M's response: The cumulative EE capacity in the modeling reflects the incremental impact of EE programs selected through their respective program lives. In the years beyond 2034, the effect of the incremental EE programs to the Company's load forecast along with the reduced economic selection of EE resources in later years of the planning period results in a decline in the amount of optimized cumulative capacity.

EE load represented in Exhibit A-12 includes the level of EE in the Company's 2020-2022 DSM plan and the EE resources previously optimized in the Company's 2018 IRP. In the previous IRP, new commercial heating and cooling EE resources were selected in 2038 resulting in the increase in savings referenced. For the purposes of the 2021 IRP, however, the previously optimized EE is removed from the Load Forecast for modeling purposes. Exhibit A-17 identifies the amount of approved EE that is recognized within of the Company's Load Forecast for the purpose of the IRP modeling.

- *In the IRP optimization, did I&M test the use of the levelized EE program costs over the bundle life so the costs are on equal basis with supply-side resources? Or are the EE costs being analyzed as incurred (in year one), and does this represent a fair comparison to all other competing resources?*

I&M's response: In the IRP optimization, the Company did not test the use of a levelized EE program cost over the bundle life as this is not how the costs would be realized as these costs (i.e., expenses, not capitalized costs) would be incurred in the year of measure installation, or the first-

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year of the measure's effective useful life. Modeling as a first-year cost does not harm energy efficiency resources compared to other supply-side capital resources since the model is assumed to have perfect foresight of future year benefits - which means the cost and benefits of the EE programs were consistently recognized against other capital supply-side resources.

- *Why did all the DR programs receive a "non-optimized" treatment (Table 17, Page 120) in the IRP modeling process (Aurora)?*

I&M's response: The two DR resources were modeled as "non-optimized" resources in the IRP as a simplifying assumption for the modeling to limit the number of resources available for optimization. This was considered a reasonable assumption given the magnitude of potential available relative to the total demand. The integration of these resources as a non-optimized resource, however, still allowed the Company to recognize the value they provide in the total portfolio of resources. The Company will review its modeling methods of DR resources in future IRPs.

C. I&M Scenario/Risk Analysis

a. Comments on Scenario/Risk Analysis (Draft Director's Report pp. 10-13)

Director's comment (starting on p.12 of Draft Report): In this IRP, I&M did not examine how the focused six portfolios would perform under scenarios they were not derived from. Usually, this type of analysis is part of the risk assessment to check the robustness of a portfolio under various futures. It might be helpful to have this analysis conducted before developing the Preferred Portfolio.

As was noted earlier, the three optimized scenarios all use the base load forecast. It appears that all 14 portfolios are based on the base load forecast. No optimized scenario appears to have been based on a high or low load forecast. The Director recognizes that the impact of higher load, for example, will play out over time with relatively small impact on resource choices over the next few years. Nevertheless, it would have been informative to understand how sensitive the level of resources to be acquired over the planning period is with different load forecast assumptions.

I&M's response: I&M appreciates the feedback on the ways to analyze the focused portfolios, including I&M's internal load forecast variation. For clarity, the Company did run 200 separate iterations of each of the focused candidate portfolios as described in the Draft Report on page 11. These 200 iterations included variations in peak and average load to understand how each of these portfolios would hold up under varying load conditions. As stated previously, however, the Company will evaluate the capacity expansion solutions related to a high and low load forecast as well as review the risk analysis methods for its Portfolios in its next IRP.

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Director's comment: *According to the discussion in the section titled "Supply-Side Resource Options and Costs" (I&M IRP p. 94, third paragraph), the IRP modeling did not consider ownership structure, but the availability dates for different resources, which seems to be driven by the time it takes to self-build rather than considering the option to execute a PPA or buy an existing facility. This is seen in several places, such as solar (I&M IRP pg. 101) and wind (I&M IRP pg. 102) not being available until 2025. It is also used as justification for excluding some portfolios, such as the Rockport 2026 (I&M IRP pg. 140). It should be noted that the availability dates potentially had an impact on the model selections, since the maximum amount of wind and solar were always selected in the first year available.*

I&M's response: The Draft Report is correct as stated on page 12 that the Company purposefully did not consider ownership structure when developing the candidate portfolios. The concern raised is that such differences may have an impact on the first years available. I&M appreciates this concern. I&M carefully considers the PJM queue and market intelligence to develop its first-year available dates. Allowing generation to be available and selected in the modeling in a year that is sooner than it can be obtained in the marketplace will be problematic in meeting the near-term PJM capacity obligation and how the selection of resources influence the amount and timing of other resources selected in the IRP. In fact, what I&M is experiencing is that the lead time for new resources is longer than assumed in the IRP due to delays related to the PJM interconnection queue, certain permits, and other market factors.

I&M has recently used short-term capacity market purchases as needed to fulfill near term capacity obligations to allow time for longer term resources to be available. The Company does not anticipate that given the fairly stable near-term load, current tax credits and other inputs that allowing the same resources available in the modeling one or two planning years sooner would lead to a different resource selection over the long-term planning period. The same or similar resources would likely be selected, just some amount sooner.

Director's comment: *All optimized portfolios have at least 25% of off-system sales as a percent of load. This points to a disconnect between the regional capacity expansion, which determines the wholesale market, and the I&M capacity expansion runs, which take the regional market as a given. There is some level of overbuilding in the I&M runs to sell into the market. Thus, there is an economic interest in additional capacity outside of I&M that was not captured in the regional capacity expansion. In developing the Preferred Portfolio (which was not an optimized case), I&M chose to postpone the addition of some generation. This reduces off-system sales to slightly less than 20%.*

I&M's response: Off-system sales was an important metric for the Company to consider in this IRP given the energy rich renewable resources that are included. While there is a potential economic interest at the regional level, the Company's decision to postpone some of this renewable generation served to mitigate risks related to fuel price uncertainty and potential carbon emissions price effects. The Company appreciates the Directors acknowledgement of the differences in the regional and

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Company specific capacity expansion modeling and will continue to pursue as much consistency between the modeling analyses.

***Director's comment:** The Director appreciates the attempt to measure resource diversity as one of the scorecard metrics. It is doubtful there is a perfect measure of resource diversity, so it is important to keep the limits of any given metric in mind. The "Number of Unique Generators" and the "Number of Unique Fuel Types" metrics can be misleading if there is a substantial difference in the size of generators or if one fuel type provides a disproportionate amount of the total. For instance, a system with one huge generator and several tiny generators would score well on the metric but provide almost no resource diversity.*

I&M's response: Resource diversity was one of four main IRP objectives. The Director's comments raise important considerations, particularly as I&M and the industry transition toward more decentralized generation that is relied upon to reliably serve customer needs. In response to the Director's comments on this metric, the Company will seek to identify and consider alternative methods to evaluate resource diversity during the stakeholder process of I&M's next IRP.

***Director's comment:** The Director is of the opinion that we are in a planning environment where it is probably impossible to fully appreciate the extent of uncertainty, much less evaluate and thoroughly understand the implications. To some degree this uncertainty might be of less concern where resources can be brought online more quickly and in smaller increments than was the case years ago. Nevertheless, it is important to focus attention on those near-term resource choices that are similar across different portfolios being evaluated with an eye on those choices that have a least regrets perception.*

Given this perspective, the Director believes that I&M provided a good narrative on how they viewed the information provided by the IRP analysis and how this information was used to inform the next step in the development of the resource plan. Such a narrative allows one to better understand where and why I&M exercised judgement in the planning process. The exercise of judgement is critical in an environment characterized by extensive uncertainty.

I&M's Response: The Company appreciates the Director's feedback related to the narrative regarding how the process informed the decisions related to the identification of a Preferred Plan. The IRP reflects a plan based on the best information at the time but in the current environment where change is occurring rapidly, the need to retain as much flexibility around the IRP remains an important factor. The Company will continue to strive to provide a transparent and robust analysis behind the decisions leading to the identification of its Preferred Plan in future IRPs.

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D. Future Improvements to Planning Methodology

a. Comments regarding Future Enhancements to I&M's IRP Process (pp. 13-14)

Director's Comments: The Director wishes to recognize some areas being considered by I&M (and AEP more broadly) to improve the long-term resource planning process over the next several years.

- 1. I&M recognizes that rate design will become an increasingly important element of future utility regulation and resource planning as the industry changes, particularly how and when electricity is used and produced. I&M cites increasing levels of DERs, EVs, and overall electrification that will have a significant and uncertain impact. AMI technology will provide useful and necessary information to better evaluate and disaggregate loads and support future rate design changes. (See I&M IRP, p. 74)*
- 2. I&M thinks that continuing to provide safe, reliable, and affordable energy in the future will require an integrated approach between transmission, distribution, and resource planning. A fully integrated planning process will require new tools, models, processes, and capabilities. To address this need, AEP has engaged a consultant to produce a roadmap for AEP and I&M to achieve a fully integrated planning process. (See I&M IRP, p. 88)*
- 3. I&M expects deployment of AMI meters across all I&M's service territory will be complete by 2024. I&M expects AMI data will improve the company's understanding of customer usage patterns, especially regarding emerging technologies such as EVs and DERs, and be a key input to the load forecast. I&M expects to be able to use AMI data to inform the load forecast for I&M's next IRP. (See I&M IRP, p. 56)*

The Director appreciates the emphasis on developing the tools and data to better understand how and when customers consume electricity. EVs and DERs, for example, have the potential to impact not only the amount of energy consumed but will also likely cause changes in the load shape across the day and year. These changes will affect the economics of resource choices.

The Director agrees with I&M that rate design will be an increasingly important tool for a utility to use. This recognizes that both the magnitude and shape of load is to some degree controllable through rate design. Rate design induced changes to load can affect resource choices. Thus, rates need to be seen as a component of sound resource planning.

Lastly, the Director agrees that economics, technology, and the provision of good utility service increasingly require an integrated approach between transmission, distribution, and resource planning. The Director expects that the next IRP Contemporary Issues Technical Conference will focus on this issue.

I&M's response: The Company continues to monitor the growth of EVs and DERs in its service territory and expects AMI meter data and information to play an increasing role to evaluate the impact of these on its load. As more AMI data-driven insight becomes available, the opportunity to explore alternative methods for managing peak loads, including the timing, duration, and level, and developing solutions to mitigate peaks will become more apparent. I&M also recognizes the importance integrated planning will play in the future and is committed to continuing to expand the

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integration of this approach in future IRPs. The upcoming IRP Contemporary Issues Technical Conference is expected to be insightful and the Company looks forward to participating.

E. Stakeholder Comments

a. Comments regarding Director's Report on Stakeholder Comments (Director's Draft Report pp. 14-23)

Director's Comments: The following comments are intended to be a representative sampling of the public input into I&M's 2021 Integrated Resource Planning. There were similar comments raised by more than one commenter. To reduce redundancy, the Director selected some of the more salient and representative commentary.

Office of Utility Consumer Counselor (OUCC)

Director Response: All technology requirements and costs used in the IRP development should be made available to entities that have signed a non-disclosure agreement. The behavior of commodity markets over the last several months and the extent of ongoing uncertainty, especially in fossil fuels, highlights the need to consider a broad range for critical drivers in the resource planning process. Fortunately, integrated resource planning is an ongoing activity that provides opportunities to incorporate new information as circumstances are continuously changing

I&M's Response: The Company appreciates the feedback from the OUCC and will continue to work with all Stakeholders to provide a robust and transparent process. Consistent with past practice, I&M is willing to provide confidential information to entities, other than those who are competitors, pursuant to the terms of an executed non-disclosure agreement.

Indiana Advanced Energy Economy (AEE)

Director Response: While the Preferred Portfolio includes 1,000 MW of CT resources in 2028, I&M commits to conducting future competitive procurement processes to determine the optimal resource selections based on market conditions at that time. (See I&M IRP Report, p. 146) The Director expects that the modeling and analysis of energy storage will also be improved, especially intra-hour analysis to better account for ancillary service benefits that are not normally captured with hourly dispatch models

The Director has already commented on and supports I&M's intention to begin a transition to a more expansive form of planning to bring together distribution, transmission, and more traditional resource planning into a more integrated whole. An important element needs to be a broader analysis of the potential for Evs and DERs (including EE) to affect load, both the magnitude and shape, to better understand potential changes needed at the distribution level and the implication for the bulk power system over time.

The Director also supports the evaluation of various rate structures and other programs that focus on the capability to influence the timing and level of energy consumption. Of course, it is especially important, and complicated, to evaluate how DERs, Evs, rate design, and utility-scale generation resources interact with each other. Increasingly, utility resource choices must account for these interactions among technologies across all stages of the provision of electric service to retail customers.

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I&M's Response: The Company continues to work towards improving its modeling capabilities for all resources including storage, NWAs and the integration of Transmission and Distribution planning.

Reliable Energy

Director Response: The Director appreciates Reliable Energy's well-intentioned thoughts on how to improve the IRP stakeholder process and, more generally, the development of the IRP methodology and content. Reliable Energy does an excellent job highlighting the difficulty of making utility-specific resource choices in a complex and rapidly changing environment. However, almost all these difficulties were explicitly addressed in the IRP itself or the stakeholder meetings. Long-term resource planning is continually improving. Much of Reliable Energy's comments question the effectiveness of the IRP stakeholder process, the usefulness of the Director's review of the IRP and process, and the usefulness of any commission review in a subsequent regulatory proceeding. The Director's response is that the process has seen a massive improvement in the IRP quality and stakeholder input. It is undeniable that there is room for improvement. It is also open to debate how much of these changes would have occurred anyway. Surely the process developed by the Commission has facilitated much of these improvements.

Methodological Considerations

It is important for a utility to discuss how it evaluated the impact of specific resources, and potential future resource portfolios, on its ability to provide reliable and economic service while operating within an RTO region experiencing similar resource portfolio changes. To the Director's knowledge, this is work at the forefront of integrated resource planning. Consideration of how a utility makes resource choices within a broader region experiencing significant portfolio changes begins with a clear statement of the problem and the corresponding questions that need to be asked to reasonably structure the analysis. As is the case for any risk and uncertainty analysis, there is not likely to be a clear answer that satisfies all criteria. Rather, the key will be to develop the questions to be addressed, explore how these questions can be evaluated, and to provide a well-developed discussion of how the company used and interpreted the information developed in the planning process.

The behavior of commodities markets over the last several months and the extent of ongoing uncertainty, especially in fossil fuels, highlights the need to consider a broad range of critical drivers in the resource planning process. Fortunately, integrated resource planning is an ongoing activity that provides opportunities to incorporate new information as circumstances are continuously changing.

The Director disagrees with the preference Reliable Energy expresses for sensitivity analysis compared to stochastic analysis. Scenario analysis, sensitivity analysis, and stochastic (probabilistic) analysis are all useful tools for evaluating different risks in a world where the future is unknowable. Decisions to acquire resources cannot be avoided and the information provided by these forms of analysis (if used well) provides a better foundation for making these decisions.

The Director appreciates the numerous helpful suggestions provided by Reliable Energy to improve the IRP itself, both methodology and evaluation metrics. The Director would find it helpful if Reliable Energy would cite specific examples of these recommended improvements being used by other utilities and states across the country

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I&M's Response: I&M IRP was conducted, completed, and presented pursuant to, and consistent with, Indiana statute and IURC Rules. I&M's IRP included a robust stakeholder process that allowed ample opportunity for all interested stakeholders to provide input at any time during stakeholder meetings or via I&M's IRP website. I&M appreciates the Director's acknowledgement that I&M worked to address issues during the IRP and stakeholder process.

I&M acknowledges the challenges that an ever-changing environment impacting the utility industry as a whole presents to resource planning and resource decisions and appreciates the recognition of this complexity by stakeholders and the Director. It will be important for I&M to continue to engage with stakeholders to evaluate how such challenges are evaluated in future IRPs.

I&M also agrees that it is important to discuss how a utility evaluated the impact of specific resources and potential future resource portfolios on its ability to provide reliable and economic service within an RTO experiencing portfolio changes. The robust stakeholder process allows for such concerns to be presented, evaluated and addressed.

Citizens Action Coalition, Earthjustice, and Vote Solar (Joint Commenters)

Director's Response: The Director appreciates the detailed review by Joint Petitioners of EE in the I&M IRP. It is the Director's perspective that the importance of projecting the impact of EE resources over the full 20-year planning horizon is less significant than it once was.

Generation facilities today can be brought online in three to five years compared to the 8 – 10 years for more traditional generation facilities. The average size of utility scale generation additions is also much smaller today. Generation additions are 300 MW or less, and often in the 100 MW – 150 MW range. This compares to 500 MW to 800+ MW for coal-fired facilities. Shorter periods to commercial operations for new units and smaller capacity increments lessens the importance of projections of EE for the full 20-year planning horizon.

Given this circumstance, it is critical that the EE potential over the next 5 – 8 years be thoroughly evaluated in both the MPS and the IRP optimization process. Also, it is important to capture in both the MPS and the IRP the interactions between EE resources and other forms of DERs. EE potential is reassessed in every iteration of the IRP cycle.

Also, the Director thinks EE should be evaluated to better understand how it can lessen or otherwise modify utility and customer exposure to the potential implications of uncertainty and the resulting risks. The Director thinks this is an area that is generally overlooked and underappreciated.

I&M's Response: The Company remains committed to the continued evaluation of EE and DSM resources within its IRP and encourages the CAC and other interested stakeholders to continue to provide input in this area during the stakeholder process in future IRPs.

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Conclusion

I&M appreciates the opportunity to participate in the comment process. As recognized by the Director and I&M's stakeholders who submitted comments, the complexity and dynamic nature of the IRP process continues to grow and evolve. This is underscored by the growing number of stakeholders and the diversity in their interests. The feedback and input provided by stakeholders during the IRP process provided valuable opportunities for I&M to modify its IRP in order to address and incorporate a number of the interests of I&M stakeholders.

The Company is committed to working with stakeholders in Indiana and Michigan to continue to advance the modeling in its next IRP, among other elements, and looks forward to continuing to improve the IRP process.