Integrated Resource Planning (IRP)
Scenario Planning Comments

Comments Submitted By:

Name: Julia Friedman

Company or Organization: Oracle

Email: julia.friedman@oracle.com

Phone: 216-973-1685

Company or Organization Website Address: www.oracle.com

Oracle appreciates the opportunity to respond to E3's presentation of possible scenarios, presented on April 7th. We are only responding to select questions posed by E3 and the state agencies.

Are there additional scenarios that should be considered to better capture plausible future outcomes? If so, which of the current proposed scenarios would you remove? What data sources, studies, or inputs should be used to inform key scenario parameters?

Oracle encourages the E3 team to look more closely at the role of behavior change in the scenarios, possibly adding a behavior change scenario. Examples of the role of behavior change in energy strategy planning can be found in the International Energy Agency's 2023 Net Zero Roadmap update and the Washington 2021 State Energy Strategy. These studies show that behavior change can be policy driven or influenced by market forces. The current E3 scenarios focus heavily on technology, and it is unclear how changes in energy consuming behaviors are considered in the modeling, especially for smaller commercial and residential utility customers. Issues of affordability within the utility sector and beyond, return-to-office policies, behavioral responses to rate design could all be considered in a behavior change scenario. Absent a behavior change scenario, affordability could be considered in a sensitivity analysis.[1] It would be helpful for E3 to provide additional information regarding behavioral trends and forecasts that are included, or excluded, from the modeling while considering whether a behavior change scenario should be developed.

We do not have a recommendation as to what scenario is removed from the study.

---

[1] Affordability is a requirement of the electric utilities' multi-year grid plans and should be a consideration in the IRP and RA process. The 2024 U.S. Census Bureau's Household Pulse Survey shows that in Illinois, approximately 2% of households kept their home at a temperature that felt unsafe or unhealthy at some point during the year due to affordability concerns. This dangerous behavior likely shows up in modeling as lower demand for energy, but without clearly stating the cause. It is important that the modeling call out this kind of impact, especially if the price of electricity in any of the scenarios is forecasted to increase. Stakeholders and policymakers in Illinois should understand how energy consuming behaviors are affected by the price of electricity, especially if it shows up as lower energy use, and take this into consideration when studying the appropriate resource mix.

For this study, sensitivities are defined as changes to a single input or assumption within a given scenario. Please suggest 1-3 sensitivities that you believe are particularly valuable to test. For each sensitivity include:

- **Which input should be varied?**
- **What scenario the sensitivity should be applied to**

1. Opt-out vs. Opt-in Program and Rate Design Implications: Illinois appears to favor an opt-in approach to many initiatives to help manage energy use from demand response programs to time-of-use (TOU) rate offerings. While Oracle supports this approach, it would be helpful to test the implications of moving to an opt-out design for certain rate and demand response offerings. For example, ComEd's Peak Time Savings program is an opt-in design with approximately 10% of households currently enrolled. Baltimore Gas and Electric runs a similar program on an opt-out basis and sees approximately 70-80% participation rates. We recommend modeling a sensitivity that expands behavioral demand response offerings statewide on an opt-out basis. The impacts of BDR have been studied for over a decade. Oracle can provide additional evaluations to inform modeling, if needed.

   Similarly, TOU rate adoption varies significantly depending on an opt-in versus opt-out design. It is not inconceivable that during the time horizon covered by the IRP, the utilities and state agencies may consider moving to an opt-out, or default, TOU rate.

   These kinds of program and rate design sensitivities should be applied to the "High Flexible Future" and "High Flexible, High Load Future" scenarios.