

**Northern Indiana Public Service Company LLC**

**2024 Integrated Resource Planning**

**Public Advisory Meeting #2**

**SUMMARY**

**June 24, 2024**

**Welcome and Introductions**

**Alison Becker, Manager, Regulatory Policy, NIPSCO**

**Vince Parisi, President and Chief Operating Officer, NIPSCO**

**Fred Gomos, Senior Director, Environmental and Sustainability, NiSource**

Ms. Alison Becker, Manager, Regulatory Policy welcomed participants to the meeting and provided information on MeetSafe for the location and a safety moment. She then reviewed the meeting protocols and agenda. Mr. Vince Parisi, President, provided opening remarks for the meeting and Mr. Fred Gomos, Senior Director, Environmental and Sustainability, provided a recap of the April 23, 2024 Public Advisory meeting and responded to Stakeholder feedback received at that meeting.

**Scenario Analysis Overview**

**Patrick Augustine, Vice President, Charles River Associates (“CRA”)**

Mr. Patrick Augustine, Vice President, CRA began with a recap of NIPSCO’s first Public Advisory meeting, reiterating the resource planning approach and describing the key modeling and analytical tools that NIPSCO uses when developing its Integrated Resource Plan (“IRP”). Next, Mr. Augustine summarized the five IRP scenarios NIPSCO will consider in the 2024 IRP, which include the Reference Case (“REF”), Slower Transition (“ST”), Domestic Resiliency (“DR”), Aggressive Environmental Regulation (“AER”), and Accelerated Innovation (“AI”). Finally, Mr. Augustine provided a macro view of NIPSCO’s five IRP scenarios with a summary of the major drivers, including commodity prices, carbon policies, technology costs, demand, and market design.

**Scenario Analysis: Key Drivers of NIPSCO Load Uncertainty**

**Pat Augustine**

**Vince Parisi**

**Rick Calinski, Director, Public Affairs and Economic Development, NIPSCO**

**Fred Gomos**

**Mike Leikin, ElectroTempo**

Mr. Augustine kicked off this section by reviewing the key drivers of load uncertainty for each of NIPSCO’s five IPR scenarios. Mr. Augustine then turned over the presentation to Vince Parisi for a recap of recent data center news stories that have led NIPSCO to make a significant update to its reference case load forecast. Mr. Parisi then walked through slides showing the recent growth in the data center industry and how this could impact utility loads in Indiana.

Mr. Rick Calinski, Director, Public Affairs and Economic Development then discussed data center incentives provided by the state of Indiana and how these incentives are driving data centers to consider locating in NIPSCO's service territory. In addition, Mr. Calinski discussed details of Indiana's Data Center Gross Retail and Use Tax Exemption, which was passed in 2019 and noted that NIPSCO is receiving inquiries from data centers on a weekly basis, highlighting how quickly the data center industry is growing. Mr. Calinski then provided some of the reasons why data centers are looking to locate in northern Indiana, including a robust transmission network and reliability, available land, connectivity and fiber, and access to water, among other drivers. Mr. Calinski also mentioned how data center size and need for load has increased over just the last few years. Mr. Calinski then provided details about six active data center projects where NIPSCO has advanced in discussions with the potential customers and made an initial determination that the company has the ability to serve them. Their combined load was estimated to be up to 8,600 MW by 2035.

Mr. Gomos then presented NIPSCO's approach to evaluating new large load customers utilizing sensitivity analysis, and showing the potential load growth that will be analyzed in the IRP. He noted that emerging large load customers will be used as a sensitivity factor across NIPSCO's five IRP scenarios.

Next, Mr. Augustine discussed each of the main inputs that factor into NIPSCO's load growth scenario analysis, beyond new large loads, beginning with an Electric Vehicle ("EV") Forecasting Overview. Mr. Augustine recapped the EV reference case forecast presented in the April stakeholder meeting and presented high and low scenario ranges for light and medium duty EVs. Mr. Mike Leikin with ElectroTempo then presented a highway corridor EV charging demand forecast. Mr. Leikin showed the methodology that ElectroTempo used to determine its projections and then provided a summary, with key takeaways.

Mr. Augustine then provided information on load ranges due to additional electrification and customer-owned distributed energy resource ("DER") penetration. Mr. Augustine summarized the Reference Case customer-owned DER projections provided in the April stakeholder meeting and described the key drivers of future customer DER adoption and how they were mapped to the other four scenarios. Mr. Augustine then closed the section by providing a summary of NIPSCO's all-in load forecast, showing total energy sales by customer segment, summer peak load by customer segment, all-in summer and winter peak load ranges (base and high large load sensitivity), and total energy sales across scenarios and sensitivities.

**Participants had the following questions/comments, with answers provided by NIPSCO:**

- When did NIPSCO become aware of each of the six prospective data centers in its service area? Did NIPSCO begin discussions and studies with any of these data centers prior to its April IRP meeting?
  - The conversation related to data centers in Indiana has been going on for some time and has been very robust. It has been happening relatively quickly and more information continues to become available. Although NIPSCO has been looking at this for the past several months, along with other utilities in the state, the Company has gotten more information in the last couple of weeks to have more certainty related to what should be considered with respect to a reference case, as well as in the overall IRP process.

- What does it mean that you're releasing an updated Reference Case (I don't think we've gotten any data from NIPSCO thus far in this process)?
  - The updated Reference Case is simply different from what was shared in April.
- Does that mean NIPSCO will be sharing updated data related to the Reference Case (I don't think we've seen any load forecast data)? When can we expect the data?
  - Yes, NIPSCO will share the Reference Case data in this meeting, along with the scenarios. If you would like additional information, NIPSCO can take the request up one-on-one.
- Will the data centers be expected to run 24 hours a day?
  - Typically data centers run 24/7 and they do not have significant ramp up or ramp down expectations. They typically will run around the clock without a lot of downtime.
- Will there be the possibility of interruptible load during high demand times?
  - That is being considered as part of NIPSCO's demand response study. Some data centers can transfer load to other parts of the country, if required. That potential is being considered as part of the market potential study.
- How far into the interconnection process is NIPSCO with these new data center loads? Are these loads that have signed some sort of agreement saying that they are likely to take power and willing to pay for any network upgrade study or other costs that are developed out of that study? Where are you in the interconnection process for each one of these data centers?
  - One of the things NIPSCO has to explore is the interconnection process. The Company has been looking at this new load relatively recently, over the last several months, and the interconnection process will have to be part of what is considered. The Company will continue to work with the Midcontinent Independent System Operator, Inc. ("MISO") to understand how to meet the load requirements as they continue to develop.
- Will you obligate each data center to any network upgrade charges regardless of whether they interconnect or not?
  - One of the things to consider through the process is how we ensure and protect the current customers in the system with respect to any new load that is developed so we will certainly look at those types of issues and come up with good ways to resolve them.
- I'm still a little unclear. Are these inquiries, and how firm are these data center load requests? Is the Chesterton project canceled?
  - NIPSCO has had a number of different groups and organizations ask about data centers in the northwest part of the state, and across the northern part of the state in our system. The Company has examined those and looked at the commercial decisions that have been made. When a potential customer has made a significant commercial decision, an example of that being land acquisition, then we consider the project more plausible. However, most projects are still early in the process.

The Reference Case is certainly not everything related to the various discussions, but includes what we believe has a little more certainty.

- As a follow-up, obviously we have concerns about the impact to other ratepayers and we would like to have further conversations about how to protect other ratepayers as the nation is grappling with this issue. For the 8,600 MW jump that NIPSCO is predicting, how much of that is a situation where the land has been acquired and the customer is moving forward?
  - It is still the early stages and what you will see in the Reference Case is not tied back to any specific end-user. It is really a look at the different parties that NIPSCO is working with and what stage we are in with that development, so it should reflect generally what might come to fruition out of all of that possible load.
- How much of this load is related to artificial intelligence (“AI”)? Is NIPSCO seeing an uptick in current data center usage because of AI?
  - There is some, but there are not a lot of data centers currently on NIPSCO’s system. There is certainly a desire for them to continue to grow and AI is part of that conversation, but it is not all of the conversation. As for potential new load, NIPSCO is not far enough down the path to determine whether it is going to be AI load or more traditional data center load. That is something that will be considered as part of the process and the Company will ultimately decide what kind of capacity is going to be needed to serve them.
- How many MWs is the LaPorte data center?
  - The load for the Microsoft data center that is being referenced has not been finalized. That announcement was a few weeks ago and we are in conversations with the customer now. As there is more information on what that load ultimately looks like, that information will be shared.
- With data centers using load during the 'on peak', are you creating a special rate for the data centers to account for their use during higher locational marginal price (“LMP”) times? Other ratepayers will not want their rates raised because data centers are moving to NIPSCO territory.
  - It is certainly something that NIPSCO is considering, and the Company is studying the best way to serve data centers and creating a new rate is a potential. However, when thinking about rate design, there are other processes for that outside of the IRP. For the IRP, NIPSCO is studying supply and demand, and the conversation here should focus on the demand and the potential ways for NIPSCO to supply that demand.
- Does the data center load modeling include the closing of Michigan City and Schahfer?
  - NIPSCO’s current Reference Case still includes both Schahfer and Michigan City retirements. The planning assumptions on the supply side have not changed.
- Is the large load customer (including data centers) interconnection process in your tariffs?
  - Yes.

- In the reference case, what is the compound annual growth rate (“CAGR”) for the commercial sector if we keep aside data centers for a minute?
  - Without data centers, and this is documented in the April meeting slides, it is 0.37% per year for summer peak growth.
  
- In addition to more demand on the grid, how much pollution will impact frontline communities? How much projected CO2 emissions in general?
  - It is very early on with respect to the process of really understanding what that potential load would be and then ultimately how that load is served. It is known that this is the type of load that is more 24/7/365 and that will be taken into consideration. The Company is not at a point yet where we can identify the type of generation that will match up with it.
  - This is just one aspect of the resource plan. The process starts with the demand side and then the process considers how to supply that demand. That will be distilled in the scorecard depending on the portfolio selected. The scorecard will provide information on items such as emissions projections. Part of the reason that policy makers are seeking data centers across all jurisdictions is that there is some economic value for the communities, such as construction of the facility. The Company is focusing on the value that these projects can provide to the community from an economic development perspective.
  
- I think it is important to include the full costs of serving these new loads in the IRP. If cost allocation is uncertain at this point, we should be putting all of them in.
  - One of the things considered in 2018, when NIPSCO started looking at retirements, was including the transmission and interconnection costs associated with those retirements in the analysis. There could be a way of building some sort of infrastructure cost associated with the new load growth from data centers as a proxy. The challenges NIPSCO has now and by the time that this IRP is submitted is that some of these data center project locations are not certain and some of the studies around transmission upgrades are not finalized. But, for every MW added, there is this corresponding amount of transmission and distribution (“T&D”) cost that could be built into the model.
  - With regard to other costs, those would certainly be core to the IRP process, so if there are incremental capacity and energy needs, estimating those would be core to the analysis that is being done for these different scenarios.
  
- Will the portfolio optimization include the costs of new transmission? Where could I find information on NIPSCO's available transmission capacity?
  - Incremental T&D costs will be incorporated as part of the modeling.
  
- I think the environmental justice metric needs to be developed in time to include these data center impacts.
  - NIPSCO would absolutely love to have a suggested environmental justice metric. Getting suggestions is the best way for people to get value out of that particular metric.

- I have yet to meet anyone in any community that is excited about data centers in their territory. Your current peak load is 2,300 MW, correct? And you're estimating that these six data center projects will have roughly four times your current load?
  - Yes. With those six developers, what they are saying is, if NIPSCO can meet their needs, that is the amount of load that they estimate that they could use within the next ten years. It is still early in the process with discussions happening about NIPSCO's ability to meet these developer requests.
  - The projected load figure for data centers is based on what developers have told NIPSCO they want. NIPSCO has taken more than 30 inquiries from developers and asks those developers to provide an estimate of load need. NIPSCO must then go through a process to determine how serious the developer is and if they have taken any commercial steps yet. The potential data center load is higher than what is on the slides, but NIPSCO does not know which inquiries will come to fruition. NIPSCO is planning for what happens if the six projects do come online.
  - While there are communities that have pushed back on data centers, there are also communities that have taken significant steps to attract data centers and the economic opportunities that they can bring.
  
- Just because a law or ordinance got passed does not mean that the community necessarily supported it or even knew about it. We hope NIPSCO is considering customers that are already struggling to pay existing bills and that NIPSCO does not add costs to them in this drive to go after data center load.
  - Understanding that there are customers today that are struggling to pay their utility bill will absolutely inform what NIPSCO does with respect to taking on data center load. NIPSCO will look at how everything integrates into the system and what that looks like for all of its customers, including new customers.
  
- What is NIPSCO offering data center customers, in terms of incentives? Stakeholders would like to be a part of those conversations. They want any data as soon as possible after agreements are made and felt left out of conversations in previous rate cases regarding industrial customers.
  - There was media early on about NIPSCO providing incentives to data centers, but those reports were incorrect. As the Company continues to work with data centers, it will share information as it becomes available.
  
- How feasible is adding 8,600 MW of new capacity in only a decade?
  - This is why NIPSCO has this IRP process, to analyze what is feasible. Similar questions were asked in the past about how feasible it was for NIPSCO to transition away from coal in ten years. This process sets the path for NIPSCO to be able to execute on this amount of load, should it materialize in the future.
  
- Could you describe further what was included in the high-level load studies for the six data centers?
  - So far studies have been more focused on the transmission side and what is NIPSCO's ability to deliver power to a particular site. Determining generation needs is the purpose of the IRP process. A few data centers have compensated NIPSCO for extended engineering studies, but none of those studies are complete.

- On Slide 34, should I-69 instead be I-65?
  - I-69 in the northeast corner of the state would be in NIPSCO's service territory. The appropriate interstate reference will be confirmed.
- Does NIPSCO have a dedicated EV charging rate today?
  - There are two rates today: a dedicated rate for NIPSCO-owned charging stations; and an EV-charging rate that does not have the demand charge associated with it. This is a favored rate with EV charging companies as they are beginning to ramp up. When you get into these larger sized loads in the future, customers would be on some sort of demand combination rate, which could drive specific rate designs for those types of loads.
- On Slide 34, why do all curves look flat after 2035 in the chart?
  - The analysis was a ten-year study that only went through 2035, so NIPSCO is holding things constant after that. There could be more growth after 2035 and that is something that can be explored in the future, if load growth for heavy duty vehicle charging on highway corridors does take off.
- Will you place 40% of EV charging in disadvantaged communities?
  - NIPSCO does not currently have any funds to deploy chargers beyond the ten that already exist. NIPSCO did a study and there is quite a bit of distribution in environmental justice communities, and that is one of the factors the Company considered when conducting the initial deployment.
- How will disadvantaged communities, or DACs benefit from air pollution reduction and EV charging as a form of resiliency if they are not prioritized?
  - NIPSCO can share a map of what is being done thus far and is happy to have a one-on-one discussion if that is helpful.
- NIPSCO should consider rethinking the naming of its Accelerated Innovation ("AI") scenario.
- Are we to assume that NIPSCO views DERs merely as customer-owned resources and is NIPSCO modeling with the assumption that all DERs will be on the customer side?
  - The customer-owned DER study presented here is explicitly focused on customer-driven penetration. However, from a practical modeling perspective, NIPSCO thinks of and models DERs as a supply-side resource. In addition to customer-owned resources, the Company is starting to look at Company-owned DERs with the DER RFP Event that just closed.
  - In the MPS, NIPSCO has storage incentives on the customer side that would potentially be layered on to this, like DSM or time-of-use rates, which would incentivize behavioral change.
- Are you projecting the inclusion of the Climate Pollution Reduction Grant, the Indiana Office of Energy Development Energy Efficiency Program or other investments that will spur DER?

- Not specifically, but NIPSCO did take a closer look at the Solar for All program that was brought up in the last meeting, so if there is additional detail that you could provide that would change these bands or change some of the assumptions, NIPSCO would welcome that.
- Under the different scenarios, I would argue that in the scenario that had restoration of net metering or some other compensation package you would probably see larger systems deployed.
- Are you considering any of these DERs being aggregated together and deployed as virtual power plants to reduce peak demand and provides other benefits to the grid? Is that something that you are considering as part of your modeling efforts?
  - The DSM study in the MPS, which will be covered in more detail in August, is going to incorporate certain potential for those resources to be incentivized to deliver during the times that matter.
- Are you thinking about any of the data centers deploying behind the meter resources as part of your forecast or have you had conversations with any of the customers on the topic?
  - That is a topic of discussion to be worked through with the customers. There is a real mix in terms of what data centers like to do for backup generation.
- There is a fixed amount of DER supply that gets included in your models, correct? It is not a matter of the model taking a portion of it or taking more than is shown in those forecasts, correct?
  - That is correct. The scenario range has been developed, but there is not additional DER capacity to be “selected” in the portfolio development phase.
- To develop those DER supply side forecasts do you know how this was approached in the MPS? Was it assumed that there were incentives given across some or all of the scenarios for generation not just storage, or was it just a matter of natural adoption?
  - The DER scenario range was developed via the PenDER model described today and in the April stakeholder meeting. Referring back to the table on the economic analysis slide, according to the wholesale rate growth and incentive structure, the Excess Distributed Generation (“EDG”) program would compensate extra generation at the wholesale rate and across the different scenarios we have different wholesale rate growth and one scenario that includes net metering.
  - Separately, in the MPS, this information was provided to inform the potential for new rate designs or other programs to encourage additional customer-owned storage, for example.
- I would like to see additional energy-producing DERs with some sort of incentive structure over and above EDG that could be selected by the model. Is that something NIPSCO can add as a resource option? You might wind up with huge amounts of wholesale market energy purchases if you do not have enough energy-producing resources in your model, especially through 2030 when you are going to be most constrained.
  - It is something that can be considered. There is a question of how much of that is feasible and what type of incentives would need to be provided.



- When you look at the load factors for these data center customers that it is capacity and energy that is needed to serve them and that is something that NIPSCO will need to think through. The Company is happy to have the conversation about ideas that could be incorporated into the model but is constrained by state policy in terms of DERs and EDG.
- When I see slide 46 and slide 47 I go straight to cost causation and cost allocation and I would hope that NIPSCO would consider using those slides for cost allocators moving forward. Since data centers are such an extraordinary part of these graphs, does it make sense to consider some sort of sensitivity around data centers being Rate 531 or Rate 531-like customers?
  - This is a process of estimating demand and considering what type of supply resources could meet that demand and I am not sure if the Rate 531 construct falls in the purview of the planning conversation. NIPSCO will continue to look at rate design as it goes through this IRP process to determine what makes sense for these data center customers because they have very different profiles than the Rate 531 customers. The Company has to figure out the best way to serve multiple customers in this arena, not just a single customer. Data centers were not contemplated when NIPSCO was designing what is now Rate 531.
- These constructs and agreements and terms will influence whether or not the data center comes here, so I just want to elevate that this topic is very front of mind for us.

**NIPSCO’s Supply-Demand Position: MISO Resource Accreditation and Load Obligation Uncertainties**

**Pat Augustine, Vice President, CRA**

Mr. Augustine began by presenting a slide from NIPSCO’s last stakeholder meeting, which summarized MISO’s March 28, 2024 Direct Loss of Load (“D-LOL”) filing. Although FERC approval of MISO’s filing is still required, and stakeholders have raised several questions and concerns, NIPSCO’s 2024 IRP will evaluate the potential impacts associated with D-LOL implementation. After providing this introduction, Mr. Augustine presented slides showing potential seasonal resource accreditation under D-LOL for solar, wind, gas and storage, as well as NIPSCO’s potential seasonal obligation impacts from D-LOL. Finally, Mr. Augustine walked through NIPSCO’s current capacity position compared to what it would be under D-LOL, for summer (reference load and high load sensitivity) and winter (reference load and high load sensitivity) seasons.

**Participants had the following questions/comments, with answers provided by NIPSCO:**

Just for the record, we are still calling for NIPSCO to retire Michigan City ASAP or no later than early 2026. Coal ash, air pollution and negligible job benefits to the residents of Michigan City plus housing declination because of power plant.

- NIPSCO acknowledged the comment and followed up that the Michigan City plant retirement date is scheduled for 2028, not 2026.

**Scenario Analysis: Commodity Prices, Environmental Policy, and MISO Market Outcomes**

**Pat Augustine**

**Stephen Holcomb, Director Environmental Policy & Sustainability, NiSource**

Mr. Augustine began with a review of CRA’s fundamental market model, which simulates fuel and power markets to produce integrated outlooks for commodity prices, environmental policy, and power market outcomes. He then explained how natural gas price forecasting is done and discussed the key drivers and pricing outcomes across the five IRP scenarios.

Mr. Stephen Holcomb discussed environmental policy and current assumptions that NIPSCO is making regarding the United States Environmental Protection Agency’s (“EPA”) greenhouse gas (“GHG”) rule. The Aggressive Environmental Regulation scenario assumes carbon emissions from the power sector are regulated more heavily.

Next, Mr. Augustine discussed the MISO market Reference Case and how MISO’s evolution could impact NIPSCO’s portfolio. EPA power sector emissions rules are expected to result in coal retirements or conversions and a diverse mix of new resources. Mr. Augustine then closed out this section by discussing MISO capacity mix projections across all five of NIPSCO’s IRP scenarios and key outcomes associated with MISO market generation and market prices.

**Participants had the following questions/comments, with answers provided by NIPSCO:**

- On Slide 63, is this flow diagram an iterative process? How do you iterate between the Aurora Power Market Model and the Natural Gas Fundamentals Model, which influence each other?
  - It is partially iterative, since natural gas demand impacts price, which then impacts power market dispatch and resource economics and consequently natural gas demand. However, NIPSCO is not running a full set of convergence iterations across each scenario. Instead, some testing is done to make sure that the narrative around demand and price across scenarios holds together.
- In the Accelerated Innovation scenario, you’re assuming that gas prices are lower than they are in the Reference case, which you say is the product of a different model that you are not doing any runs in (the Princeton Model). But the reason for that reduction in price is not visible at all to Aurora and it is hard not to see how that would not potentially compel Aurora to consume more gas if you were modeling the same footprint. It feels like NIPSCO is predetermining the outcome in terms of price, especially for the Accelerated Innovation scenario. But that is going to have the opposite impact from the reason that you lowered that price to begin with, when you get to Aurora.
  - When we get to the Aurora outputs you will see that the gas demand is quite low in the Accelerated Innovation scenario because that is part of the narrative. This is because the scenario construct explicitly incorporates technology improvements, like hydrogen, long duration energy storage (“LDES”), or advanced nuclear, that pick up the slack associated with increased power demand. This is one of the cases where some iterative testing on power sector gas demand and gas price was performed to ensure broad consistency. The overall point is fair, but NIPSCO has tried to develop an internally consistent scenario with some feedback modeling and other assumptions that drive these cases. Those are good comments, but when we get to the Aurora output it should become clear that the narrative holds together.

- It sounds like you've done some initial runs of the NIPSCO system specifically. Will these runs be provided as part of the data release within the next two weeks?
  - No NIPSCO-specific portfolio runs have been done, but the MISO-level data analysis, which will be discussed later in this meeting, could be part of that release. The NIPSCO portfolio analysis is coming next and will be built out against the MISO inputs.
  
- Will the data centers use natural gas as their backup generator fuel, or will they use diesel as their fuel? Will they do any peak shaving with natural gas? If they use natural gas in their process, it could be significant, so how might that change any of your modeling?
  - From a modeling perspective, NIPSCO is not making explicit assumptions about what data centers or large loads might be using for any on-site generation. That is a big uncertainty, although it is something that might warrant further study at the NIPSCO portfolio level. At the MISO market level, you will see that the Company has different levels of load growth across the broader footprint and different levels of new resource types that can meet them. So, in some of the scenarios, including the Domestic Resiliency one, there is a more robust amount of natural gas in the system, whereas other scenarios like the Accelerated Innovation one are premised more on a cleaner energy future.
  
- Related to the new coal combustion residuals ("CCR") rule, Michigan City Generating Station made land/CCR area, on the lake, is included in the CCR final rule and the condition of the aging seawall has been recently downgraded. Why not clean that up ASAP as the lake levels and wave ferocity will continue to negatively impact the condition of that degraded wall?
  - The team is analyzing the final Legacy CCR rule, which was finalized around the same time as the GHG rule. The 2015 CCR rule regulated active units while the Legacy CCR rule regulates inactive units and NIPSCO is analyzing and complying with both rules and is committed to protecting human health and the environment. As far as the sea wall goes, these rules do not impact resource planning but that is something that can be addressed outside of the IRP process.
  
- My question is related to how the NiSource net zero by 2040 is reflected in the IRP?
  - The carbon prices in the aggressive environmental regulation scenario are commensurate with a net zero power sector by 2040.
  - When the discussion gets to the NIPSCO portfolio analysis, there will be an extra layer of analysis with alternative portfolio strategies with varying levels of emission reductions over time.
  
- On Slide 79, are the capacity figures on the left in terms of installed capacity ("ICAP")? Is the jump in capacity over time motivated by load growth, or by the change in seasonal accredited capacity ("SAC") under DLOL? Do you think the load growth might be understated? Does the change in load growth significantly impact the power prices that you are getting? What is going on with the gas portion of the bars on the graph; why does gas increase and then decrease?
  - Yes, the capacity figures shown are in terms of ICAP.

- The jump in capacity is due to a combination of things. In the Reference Case there is a modest amount of load growth over the next five years, on the order of 3-5 GWs system-wide. The rest of the jump would be more due to the MISO accreditation declines for wind and solar. So, in order to meet reliability needs, the MISO market will need more capacity overall, including some incremental natural gas replacing coal.
- It is possible that the Reference Case is understating MISO-wide load growth, and the Domestic Resiliency case might be an alternative benchmark that we will consider. Although there may be pockets within MISO that have disproportionately large load growth, if data center load growth does materialize at large scale, we might be shifting more into the Domestic Resiliency world, where the MISO market would have 20 GW of load growth over the next five to ten years, and then about 60 GW of load growth over the 20-year horizon.
- Yes, the change in load growth does push the price of power up and increases the amount of new resources that need to be developed, and we will get to that in a few slides.
- This graph does include retirements so there are a couple of older gas peaking across MISO that are slated to retire and by 2035, retirements start outpacing any new builds. This is an all-in view that includes net additions and subtractions.
- Duke's IRP showed CCS being ready by 2035 at the earliest. Why is NIPSCO different from Duke and showing CCS being ready by 2030?
  - That is a fair point and it could be argued that 2030 is aggressive, but from a modeling perspective NIPSCO is trying to look at the broader market system and a range of buildouts for new resources throughout MISO that might enter if the EPA rules are in place. NIPSCO-specific portfolio modeling may have different assumptions based on NIPSCO's location and available resource options.
- Is it true that the MISO prices are LMPs, which are short-run marginal costs? If so, is there concern that Aurora will select it over the long-term marginal cost of other supply resources? That is, the model will select capacity resources rather than energy resources?
  - Yes, the LMP prices that are included here are essentially short-run marginal cost prices. From a broader modeling perspective there are several constraints that must be met. The energy needs of the system and the seasonal capacity requirements have to be met. The premise of your question is correct, but we're not seeing a migration away from a diverse set of energy and capacity resources when all of the constraints are included.
- My concern comes with the NIPSCO modeling steps.
  - That is a fair point. The same constraints would exist in some fashion, though. The Company could run the model completely unconstrained and assume that it could purchase unlimited amounts of energy in the market and there might be a different outcome versus implementing some constraints for overall purchases and sales. The way that NIPSCO has approached this question in the IRP process is that we do not want to build a portfolio that is too heavily reliant on market purchases or too heavily reliant on market sales.
- On Slide 86, what does it mean when NIPSCO shows "Hydrogen" as a standalone resource?

- NIPSCO has two hydrogen categories at the MISO market level. The Hydrogen label refers to a fully hydrogen burning turbine of some sort. The 30% H2 Blend label is mostly consuming natural gas. Such capacity could blend up to 30% hydrogen and this could apply to existing facilities that do not require many upgrades or to new facilities.

### **Stochastic Analysis Review: Inputs**

#### **Pat Augustine**

Mr. Augustine provided a review of NIPSCO’s motivation for conducting an expanded stochastic reliability assessment as part of the 2024 IRP and presented methodologies and illustrative summaries of key inputs associated with the major stochastic variables: NIPSCO load, solar output, wind output, thermal unit outages, natural gas prices, and MISO power prices.

#### **Participants had the following questions/comments, with answer provided by NIPSCO:**

- Wanted to clarify why Slide 93 did not mention natural gas as a variable, but was mentioned on slide 94. Wanted to clarify that will be considered.
  - Yes, both gas and power will be part of what is considered.

### **RFP Progress Recap and Preliminary Results**

#### **Patrick d’Entremont, Manager, Planning Commercial Support, NIPSCO**

#### **Robert Lee, Vice President, CRA**

Before beginning this section, NIPSCO provided additional details from the morning session: The Company provided information on the EV charging stations in environmental justice (“EJ”) communities and those that are close to EJ communities. Out of the nine stations, five are either in or near EJ communities.

Mr. d’Entremont outlined the resource planning approach and provided an overview of the 2024 RFP process. He explained that NIPSCO issued four RFPs: two for renewable and dispatchable resources, one for bridge resources, and one for distributed energy resources.

Mr. Lee then went into more detail regarding the bids that were received as part of the RFP process, including an overview of the projects received. He provided a summary of the pricing for the non-DER bid events and provided an update on DER event, which had just closed on June 20, 2024. He closed by discussing the next steps in the process. In addition, Mr. Gomos provided information on how the RFP information is used in the development of the IRP.

#### **Participants had the following questions/comments, with answer provided by NIPSCO:**

- How many bids were from minority business enterprise/disadvantaged business enterprise?
  - That will be considered as part of the evaluation of the bids. It was not considered as part of the preliminary results. CRA is currently looking at inconsistencies, concerns, etc. before turning to more formal evaluation, which will include that type of analysis.

**Closing****Alison Becker**

Ms. Becker closed the meeting by thanking participants for their participation and their helpful feedback. She reminded participants that NIPSCO is open to both one-on-one meetings with stakeholders as well as presentations as part of the public advisory process. She also noted that this was Doug Gotham's last meeting before he retires on June 30 and expressed appreciation for his participation and valuable input as the executive director of the State Utility Forecasting Group. Finally, she noted that the next meeting will be August 21, 2024, both at Fair Oaks Farms and on Teams and that that meeting will focus on DSM and the results of the MPS.