CAC Exhibit 1 (Public)

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE VERIFIED PETITION OF INDIANA MICHIGAN POWER COMPANY FOR APPROVAL OF MODIFICATIONS TO ITS INDUSTRIAL POWER TARIFF – TARIFF I.P.	)))))	**CAUSE NO. 46097**

HIGHLY CONFIDENTIAL REDACTED

DIRECT TESTIMONY OF BENJAMIN INSKEEP

ON BEHALF OF

CITIZENS ACTION COALITION OF INDIANA, INC.

OCTOBER 15, 2024

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I. INTRODUCTION

Q. Please state your name, position, and business address.

A. My name is Benjamin Inskeep, and I am Program Director at Citizens Action Coalition of Indiana, Inc. ("CAC"). My business address is 1915 West 18th Street, Suite C, Indianapolis, Indiana 46202.

Q. Please describe your current responsibilities.

A. I have served as CAC's Program Director since March 2022. In that role, I work to advance CAC's policy and programmatic priorities related to energy, utilities, and consumer affordability and protection.

Q. Please briefly summarize your prior employment and educational background.

A. My prior employment includes working as a policy analyst at the North Carolina Clean Energy Technology Center at North Carolina State University (2014-2016). I also worked for EQ Research LLC, a clean energy policy consulting firm, from 2016-2022. In that role, I managed EQ Research's general rate case subscription service, contributed as a researcher and analyst to other policy service offerings, such as a legislative and regulatory tracking services, and performed customized research and analysis for clients. My client engagements included participation in state utility regulatory proceedings, including serving as an expert witness on ratemaking and energy policy issues.

I earned a Bachelor of Science in Psychology with Highest Distinction from Indiana University in 2009 and both a Master of Science in Environmental Science and a Master of Public Affairs from the O'Neill School of Public and Environmental Affairs at Indiana University in 2012. I completed the EUCI's Utility Accounting 101 course in April 2023.

Q. Have you previously filed testimony before the Indiana Utility Regulatory Commission?

A. Yes. Attachment BI-1 identifies the cases in which I have previously filed testimony.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of CAC.

Q. Are there attachments to your testimony?

A. Yes. I am sponsoring the following attachments:

- Attachment BI-1: Testimonial Experience of Benjamin Inskeep
- Attachment BI-2: Relevant Discovery Responses and Attachments
- Attachment BI-2-HC: Relevant Highly Confidential Discovery Responses and Attachments

Q. What is the purpose of your testimony in this proceeding?

A. On July 19, 2024, Indiana Michigan Power Company ("I&M") filed a petition requesting approval of certain updates to its Industrial Power Tariff – Tariff I.P. to incorporate certain terms to accommodate large load customers whose contract demands exceed 150 MW. My testimony addresses why it is critical for utility tariffs to properly mitigate the risks posed by new large load customers and responds to I&M's specific proposed changes.

My silence on any issue raised by I&M in its case-in-chief should not be construed as an endorsement or approval of I&M's position.

Q. Please summarize your testimony and recommendations.

A. The new large loads anticipated for I&M's service territory are unprecedented and staggering, including facilities that will be among the single largest electric users in the state. Without the prompt implementation of robust consumer protections and enhanced transparency, existing ratepayers are at extraordinary risk from these new large loads. To its credit, I&M has proactively proposed several constructive tariff revisions that

meaningfully address these concerns, while still allowing for some flexibility and customization to address individual customer circumstances. Accordingly, I recommend the Commission approve I&M's proposed tariff revisions with certain modifications as discussed herein.

II. REASONABLENESS AND NECESSITY OF CHANGES

Q. What are the underlying reasons I&M is proposing tariff changes for new large load customers?

A. I&M does not currently have any customers who use 150 MW or more. However, new "hyperscaler" data centers with loads in the hundreds to thousands of MW are now planning to locate in I&M's service territory.[1] These new large loads will require billions of dollars in I&M investments for electric service. I&M is proposing tariff changes to ensure that it has reasonable terms and conditions of service in place that recognize and address the different needs and unique risks that these large load customers present.

Q. Please expound on how these large loads will impact I&M.

A. Announced hyperscaler projects, including Amazon's data center campus in New Carlisle[2] and Google's data center in Fort Wayne,[3] along with other hyperscaler data center projects

[1] [redacted]. I&M Response to CAC DR 1-8 Confidential and Competitively Sensitive Attachment 1 (Attachment BI-2-HC).

[2] "AWS plans to invest $11 billion in Indiana, the largest capital investment in the state's history," April 25, 2024, accessed September 26, 2024 at https://www.aboutamazon.com/news/aws/aws-indiana-investment-11-billion.

[3] "Gov. Holcomb announces Google is building a $2B data center in northeast Indiana," April 26, 2024, accessed September 26, 2024 at https://iedc.in.gov/events/news/details/2024/04/26/gov.-holcomb-announces-google-is-building-a-2b-data-center-in-northeast-indiana.

such as a prospective Microsoft data center in Granger,[4] are expected to grow I&M's current Indiana peak load of approximately 2,800 MW to more than 7,000 MW by 2030[5] based on anticipated new hyperscaler load of 4,400 MW[6] associated with [redacted] new data centers[7] and possibly more on the way.[8] This load growth is equivalent to an approximate I&M-Indiana-jurisdictional peak load increase of 157% over six years.[9] The enormity of this load increase is visualized in Figure 1, which compares this anticipated new data center load with the 2022 coincident peak loads of all of I&M-Indiana's current Tariff I.P. customers, other C&I customers, and residential customers, respectively, as reported by I&M in its most recent rate case.[10] As can be seen in Figure 1, a single data center with a contract capacity of 1,000 MW would have a higher load than *all* of I&M's roughly 420,000 residential customers combined, who had a coincident peak of 959 MW in calendar year 2022.[11]

[4] Eniola Longe, "Microsoft acquires land in Granger for data center," Inside Indiana Business, June 4, 2024, accessed October 1, 2024, at https://www.insideindianabusiness.com/articles/microsoft-planning-for-new-data-center-in-granger

[5] Williamson Direct 5:1-13.

[6] I&M has [redacted] of additional large load interest in its interconnection queue beyond the near-term 4.4 GW by 2030 forecast. See I&M Response to CAC DR 1-11 Confidential and Competitively Sensitive Attachment 7, slide 3 of 8 (Attachment BI-2-HC).

[7] I&M Response to CAC DR 1-8 Confidential and Competitively Sensitive Attachment 1 (Attachment BI-2-HC).

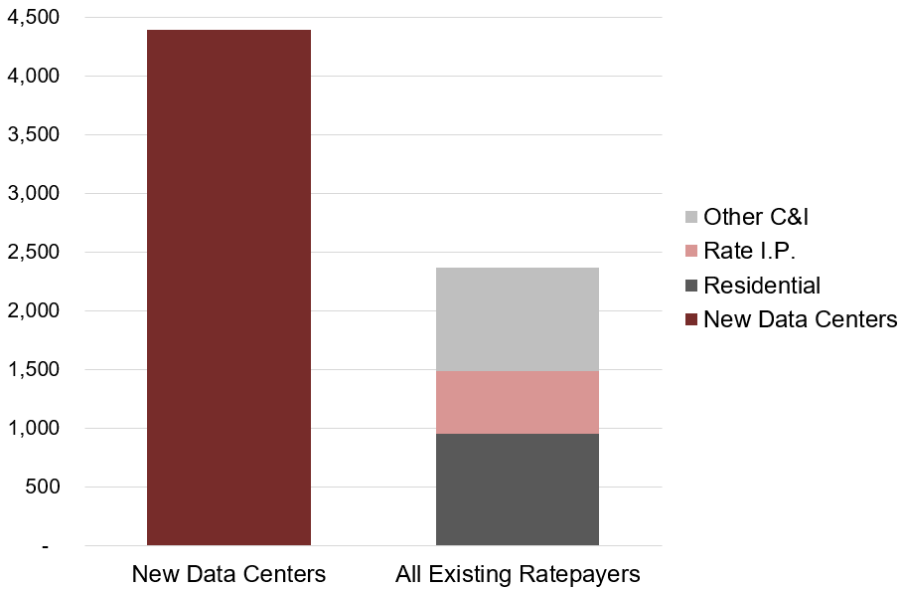
[8] Workpaper AJW-2, tab "Figure AJW-5 Support."

[9] 4,400 MW / 2,800 MW * 100% = 157% increase.

[10] See Cause No. 45933, Workpaper MSS-5 thru MSS-16. See Workpaper BI-1 for details.

[11] Cause No. 45933, WP-MSS-11 (showing a Maximum monthly coincident peak of 958,796 kW in the sample period ended December 31, 2022).

Figure 1. I&M-Indiana Peak Demand (MW)

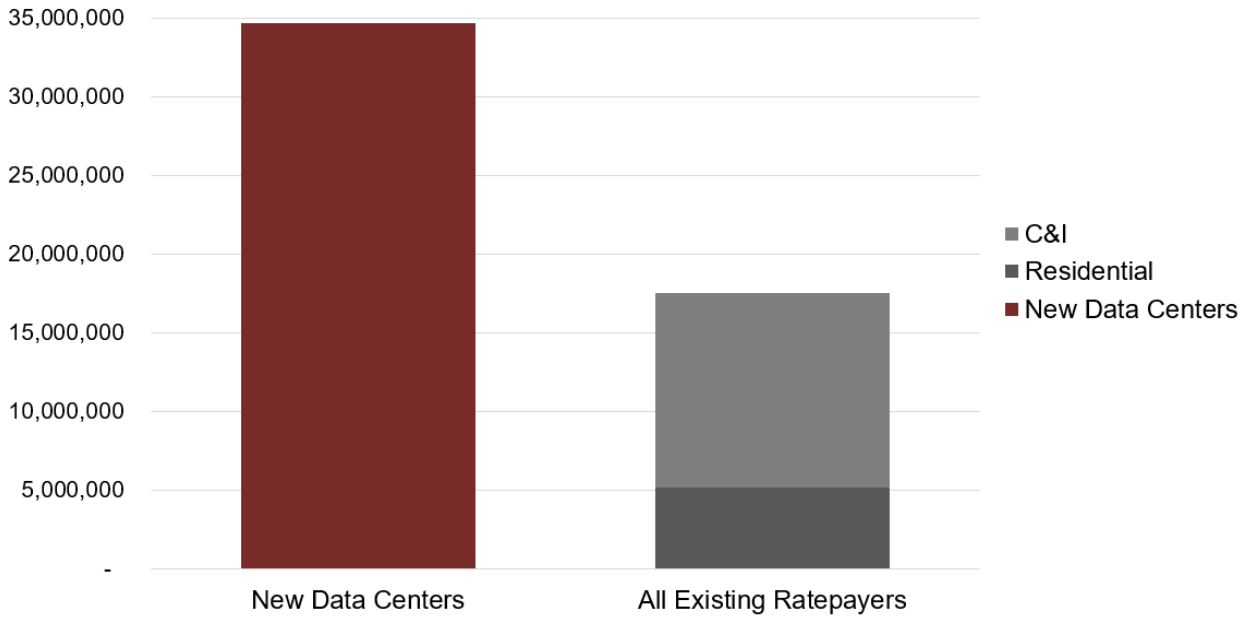


This astounding additional peak load (MW) will result in an even larger percentage increase in retail sales (MWh) to serve these data centers, because they are expected to have high load factors of 85-90%,[12] or possibly even higher.[13] A single 1,000 MW data center is expected to use about 7.9 million MWh per year,[14] which is 52% more electricity than the annual usage of all of I&M-Indiana's 420,000 residential customers combined (5.2 million MWh per year[15]). As shown in Figure 2, I&M's annual retail sales of approximately 17.5 million MWh will grow by 34.7 million MWh–a 198% increase–assuming 4,400 MW of data center load growth at a load factor of 90%.[16] By 2030, a handful of new hyperscaler

[12] See Workpaper AJW-1 (showing a load factor of 85%) and I&M Response to CAC DR 1.1(f) (Attachment BI-2).
[13] For example, NIPSCO's integrated resource planning is using an assumed load factor of 95% most of the year and 98% during the summer.
[14] 1,000 MW * 8,760 hours per year * 90% load factor = 7,884,000 MWh per year.
[15] Workpaper AJW-2.
[16] Workpaper AJW-2.

data centers will consume 6.7 times more electricity than all of I&M's residential customers use today.[17]

Figure 2. I&M-Indiana Retail Electric Sales (MWh)



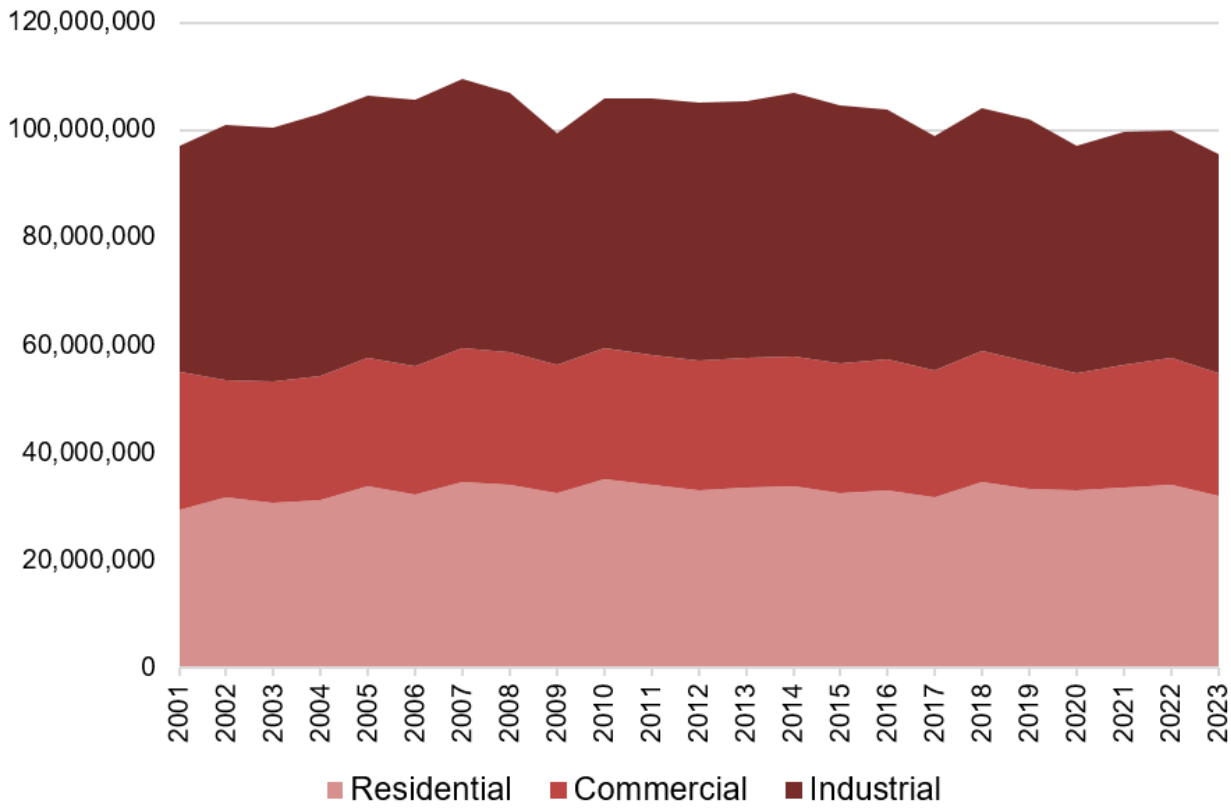
This nearly unfathomable load growth projected over a very short time for new data centers does not include other expected load growth in I&M's service territory, including other economic development, rising customer counts, building electrification, electric vehicle charging, and potential technological breakthroughs like green hydrogen, which are also likely to push I&M's capacity and energy needs even higher.

Q. Can you put this in the context of what it means for the State of Indiana's retail electric sales?

[17] Workpaper AJW-2, calculated by dividing 34,689,000 MWh data center consumption by 5,176,396 MWh residential consumption.

A. Yes. Since at least 2001, annual retail sales of electricity have been relatively stable. After peaking at about 109 million MWh in 2007, retail sales of electricity have slowly decreased to about 98 million as of 2023 (Figure 3).

Figure 3. State of Indiana - Retail Electric Sales (MWh)

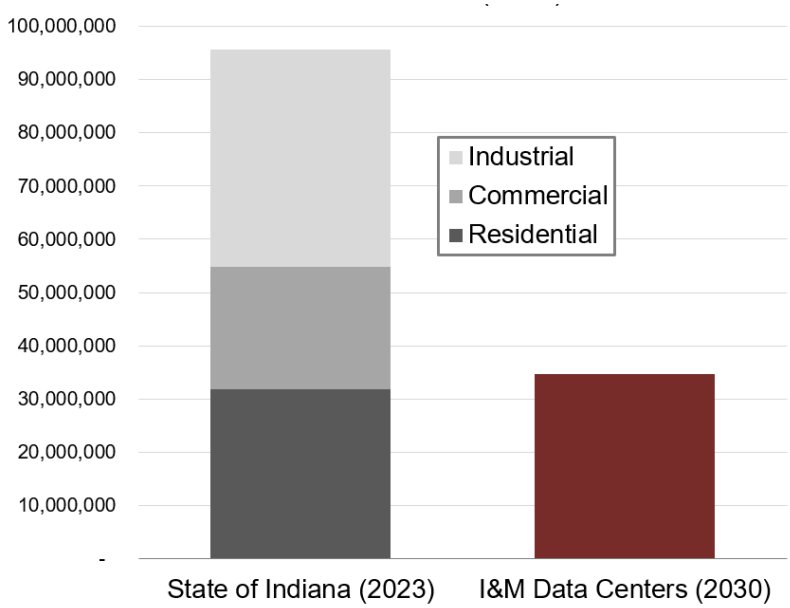


As shown in Figure 4, I&M's expected data center load growth by 2030 (35 million MWh[18]) is equivalent to 35.5% of the State of Indiana's total retail electric sales across all utilities in 2023 (98 million MWh[19]). Just a handful of new I&M data centers will soon have retail sales that eclipse total Indiana statewide residential retail sales (31.9 million MWh) and commercial retail sales (22.9 million MWh). In other words, just a few

[18] Workpaper AJW-2.
[19] U.S. Energy Information Administration, https://shorturl.at/4H0zL

hyperscaler data centers used for applications like artificial intelligence, or AI, will use more electricity than all 6.8 million Hoosiers use at their homes.

Figure 4. Retail Electric Sales (MWh)



Indiana utilities NIPSCO and AES Indiana have also indicated that they anticipate substantial data center load growth this decade and into the 2030s. The scale of load growth associated with serving new hyperscaler facilities is completely unprecedented in recent decades in Indiana.

Q. What costs does I&M expect to incur to provide electric service to these new large load customers?

A. I&M estimates that the incremental cost of transmission investment (local upgrades and direct connect costs) required to serve new large load customers will be between $840 million and $1.05 billion.[20] For example, AEP submitted a transmission cost estimate of

[20] I&M Response to Data Center Coalition DR 1-6(b) and I&M Response to OUCC DR 2-7 (Attachment BI-2).

$155.69 million to implement the upgrades necessary to interconnect a single 1,100 MW load customer by 2026.[21]

I&M also anticipates spending billions on new generation. Using I&M witness Williamson's example portfolio that has an average resource cost of $2,000/kW and has an average accredited capacity of 50%,[22] I&M will also need to make $17.6 billion in new generation investments to serve 4.4 GW of new hyperscaler load.

Q. Does this level of investment create any new risk?

A. Yes. There is project execution risk associated with each new build, which could be magnified by undertaking many of these projects all at once due to the pressure to bring a large amount of generation online in time to meet data center load ramps. It could also create a cash flow risk to I&M if it is spending large amounts on projects years prior to the costs reflected in rates.

Q. Does the composition of I&M's new large load customers pose any unique risks?

A. Yes. The concentration of a majority of I&M's future load and retail sales in one industry at a small handful of facilities significantly increases risk to I&M and to ratepayers. The new large load customer additions that have been announced or reported on to date are all in the same industry, with each operating one or more new data centers. While some power used by the data centers could be used for cloud computing, it appears that a substantial portion of the power needs for large, new "hyperscaler" data centers like these is for so-called AI. Each data center will use hundreds of megawatts of power or more, further

[21] Transmission Expansion Advisory Committee meeting, AEP Supplemental Projects, June 4, 2024, https://www.indianamichiganpower.com/lib/docs/ratesandtariffs/Indiana/IM_IN_TB_20_09-27-2024v1.pdf)

[22] Williamson Direct 7:6-10.

concentrating risk at just a small handful of facilities. Negative impacts to the tech industry, demand for AI and computational power,[23] or to specific data center facilities could have a ripple effect: power demand could abruptly decline significantly, eroding I&M revenues and resulting in rate increases and credit downgrades, which would lead to a higher cost of capital and changes to cost allocation, possibly resulting in more rate increases to customers.

Q. Do the new large load customers create risks to future economic development in I&M's service territory?

A. Yes. While I acknowledge there will be large investments initially made to build data centers, it is possible that these data centers ultimately restrict, rather than foster, additional economic development in I&M's service territory. These unfathomably large loads—possibly the largest in the State of Indiana—will strain the grid in numerous ways that could have negative repercussions for prospective economic development opportunities. For example, customers with new or expanding load could face challenges securing sufficient capacity from I&M within a reasonable timeframe, given the enormity of the task I&M has ahead of it to secure sufficient power for 4.4 GW of data center load. The addition of the large load will result in significant transmission congestion on I&M's Indiana transmission system, meaning other prospective customers could have to wait years to begin service.

[23] Some investors are now warning that the disproportionate hype has created an AI bubble. E.g., see generally, "Gen Ai: Too Much Spend, Too Little Benefit?" Goldman Sachs Global Macro Research, Issue 129, June 25, 2024, https://www.goldmansachs.com/images/migrated/insights/pages/gs-research/gen-ai--too-much-spend,-too-little-benefit-/TOM_AI%202.0_ForRedaction.pdf

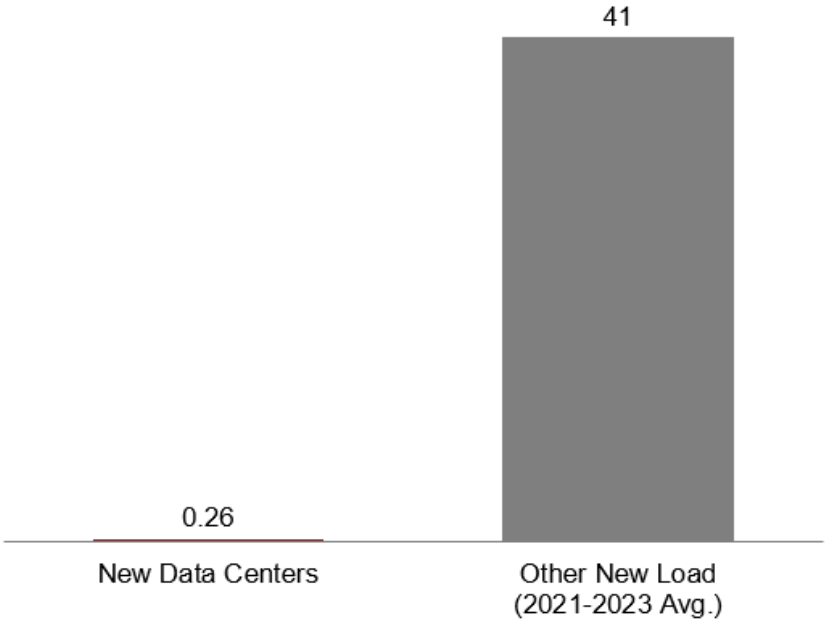
The large loads will also result in substantial changes to cost allocation, with far more PJM costs being allocated to I&M, more I&M company-wide costs being allocated to its Indiana jurisdiction, and more I&M-Indiana costs being allocated to the Tariff I.P. class. These higher cost allocations could undermine affordability for other ratepayers, including non-data center prospective Tariff I.P. customers who could decide to site new facilities elsewhere.

Q. Will the data centers create many jobs?

A. No. As depicted in Figure 5, the data centers will create shockingly few jobs relative to their power demand compared to other economic development. According to I&M's calculations, the three new large load customers will create only 0.26 jobs per 1 MW.[24] In comparison, new or expanding I&M customers whose incremental demands were less than 150 MW, the overall jobs created per 1 MW were 15.2 in 2023, 11.3 in 2022, and 96.5 in 2021, or an annual average of 41 jobs per MW. In other words, the same power provided to a data center could produce over two orders of magnitude more jobs if it was used in another Indiana industry or business instead.

[24] I&M Response to Amazon DR 1-28 (Attachment BI-2).

Figure 5. Hoosier Jobs Created per 1 MW



Q. What reliability risks are associated with large data center load growth?

A. The new large loads being sited in Indiana are likely to be the single largest electricity consumers in the State of Indiana, or among them. The rapid addition of these enormous, inflexible loads could negatively impact reliability for other customers.

PJM has found that data center load growth could significantly contribute to increased reliability risks, with reserve margin falling to 8% by the 2028/2029 Delivery Year, and beyond, under the "Low New Entry" scenario levels. In 2023, PJM found that, "For the first time in recent history, PJM could face decreasing reserve margins […] should these trends – high load growth, increasing rates of generator retirements, and slower entry of new resources – continue."[25] The North American Reliability Corporation's ("NERC") 2023 Long-Term Reliability Assessment summarized the findings:

[25] PJM, "Energy Transition in PJM: Resource Retirements, Replacements & Risks," p. 17, https://www.pjm.com/-/media/library/reports-notices/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx

> PJM found increasing reliability risks due to the potential for the timing of generator retirements to be misaligned with load growth and the arrival of new generation on the system. Trends toward higher demand, faster generator retirements, and slower resource entry could expose PJM to decreasing Planning Reserve Margins and reliability challenges from imbalanced resource composition and resource performance characteristics.[26]

NERC has established a Large Loads Task Force to better understanding the reliability impacts of emerging large loads such as data centers.[27]

Since then, data center load growth projections have continued to skyrocket, with PJM tripling its growth rate projection at the beginning of 2024.[28] PJM's capacity auction held in 2024 also produced a price of $269.92/MW-day for most of the PJM footprint, including Indiana, which is an 830% increase over the prior auction ($28.92/MW-day), illustrating reserve margins are tightening, resulting in cost increases to consumers. The reserve margin fell from 20.4% in the 2024/2025 Delivery Year to 18.5% in the 2025/2026 Delivery Year.[29]

Q. Do credit ratings agencies identify data center load growth as a risk to utilities and customers?

A. Yes. A recent report by Moody's warned:

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[26] https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2023.pdf

[27] NERC, "Large Loads Task Force (LLTF), https://www.nerc.com/comm/RSTC/Pages/LLTF.aspx#:~:text=Large%20Loads%20Task%20Force%20%28LLTF%29%20The%20purpose%20of,their%20impact%20on%20the%20bulk%20power%20system%20%28BPS%29.

[28] Ethan Howland, "PJM triples annual load growth forecast to 2.4% driven by data centers, electrification," Utility Dive, January 9, 2024, https://www.utilitydive.com/news/pjm-interconnection-load-forecast-data-center-ev-dominion-firstenergy/704040/

[29] https://insidelines.pjm.com/pjm-capacity-auction-procures-sufficient-resources-to-meet-rto-reliability-requirement/

> The complications of serving new, large-scale data centers leaves utilities exposed to two fundamental risks. **On the demand side, utilities could overbuild system capacity for load that never materializes or that serves the new load for a period of time that is shorter than the useful life of the new power asset.** On the supply side, utilities could promise capacity to a data center customer that is not actually available by the time the customer requires it.
>
> **Cost allocation and rate design are key for financial stability and to avoid cross-customer subsidization.** If a data center ceases operations or simply does not use as much power as originally envisioned, some of the infrastructure costs incurred to serve this expected demand could be socialized to other customers.[30]

(Emphasis added.) It concluded that "[f]or now, the risk of overbuilding is most acute for utilities that are short on power or at capacity to serve existing demand in their service territory," which describes conditions I&M anticipates facing this decade.[31]

A July 2023 Fitch Ratings report found that data center load growth could have negative impacts on utility affordability and environmental sustainability, while emphasizing the importance of utility tariff revisions to ensure long-term commitments from data centers:

> Data center growth will increase commercial margins for electric utilities and the high load factors of these customers can make the system more efficient and help keep retail rates affordable, a credit positive. But there is a risk that utilities could overestimate the demand from data centers and overbuild given inconsistent methodologies for forecasting load. **Long-term commitments from data centers will be key along with alternative rate designs and tariffs to ensure utilities can recover costs to serve these large loads as well as balance the cost of service across all customers**.

[30] Cited by Robert Walton, "Data centers can drive revenues for Dominion, Pinnacle West, Southern, but there are risks: Moody's," July 23, 2024, UtilityDive, https://www.utilitydive.com/news/data-centers-can-drive-revenues-for-dominion-pinnacle-west-southern-Moodys/722084/

[31] Allison Good, "Credit risks loom for utilities that overestimate datacenter demand," S&P Global, July 26, 2024, https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/credit-risks-loom-for-utilities-that-overestimate-datacenter-demand-82567534

> Meeting the upsurge in power demand will require significant power generation and transmission capex driving rate-base and earnings growth for utilities. **However, higher capex will put pressure on retail rates, unless offset by cost reductions, as well as will stress the credit metrics in the near-term**. Utilities will also have to balance the need for new natural gas generation for reliability purposes against their energy transition goals.
>
> The increase in power demand is coming at a time when new supply is being constrained by grid interconnection delays, supply chain bottlenecks and stricter environmental rules. **Fitch expects gencos to benefit from higher wholesale power prices as well as from higher margins on bilateral power purchase agreements**, in particular for carbon free generation.[32]

(Emphasis added.)

Q. Are there examples in Indiana of data center load growth preventing new economic development from coming to a region?

A. Yes. The Meta (operating under the name Blocke, LLC) data center that is being built at the River Ridge Commerce Center in Clark County is an example of how large data center load can overwhelm the grid, preventing any additional economic development from locating in a region for five or more years. In Cause No. 46038, River Ridge Property Owners' Association testified that it is now facing extreme difficulty in bringing new economic development to the area following the announcement of the new data center:

> Duke Energy may not be able to currently serve any additional businesses at the RRCC [River Ridge Commerce Center] with required electric loads as low as 5MW without a delay of several years, which means that, absent an alternative avenue for securing necessary electric service, River Ridge may well be required to sit on the sidelines to attract investment from new or expanding companies.[33]

[32] Fitch Ratings, "Upcoming Power Surge from Data Centers Boom ," July 23, 2024, accessed October 1, 2024 at https://www.fitchratings.com/research/corporate-finance/upcoming-power-surge-from-data-centers-boom-23-07-2024.

[33] Cause No. 46038, Staten Direct 4:9-13.

River Ridge Property Owners' Association went on to explain that the majority of current and prospective companies would have to wait an additional 48-60 months for necessary grid upgrades to access the power needed for their operations, significantly curtailing any hope of economic development through 2029 or later.[34] As a result of these grid constraints, Duke Energy Indiana was unable to meet the electric needs in the timeline identified for a prospective economic development project that was the subject of an Indiana Economic Development Corporation request for information.[35]

Q. Could the new large load facilities coming to I&M's service territory delay future economic development projects?

A. Yes. Adding 4.4 GW of large load customers by 2030 could severely limit I&M's ability to interconnect other prospective customers in a timely and cost-effective manner, resulting in lost economic development projects and job growth opportunities. According to I&M, the 4.4 GW of new large load customers only have direct connect and local upgrade costs, but not regional transmission system upgrade costs, which can be far more expensive and slow to complete because they can include the construction of new transmission lines and substations. To the extent the new data centers use up all or a significant amount of the remaining transmission system capacity in Indiana, it could result in any additional

[34] IURC Cause No. 46038, Staten Direct Testimony, pp. 9-11 (July 11, 2024).
[35] *Id.,* pp. 10-11.

prospective customers being unable to cost-effectively locate their new or expanded facilities in Indiana, harming the future economic prosperity of the State.[36]

III. COMMISSION AUTHORITY

Q. Are the terms proposed by I&M, as modified by your recommendations below, consistent with the Commission's authority?

A. I am not an attorney and do not offer any legal opinions in my testimony. That said, I believe they are, based on my understanding of the plain language of the statutes. The Commission has authority pursuant to the provisions of the Public Service Commission Act, including Ind. Code § 8-1-2-38, 39, and 42, among others, to approve I&M's terms and conditions of service. I&M's proposals, as modified herein, are reasonable and appropriate for addressing the risks to I&M and its ratepayers associated with new large load customers. Failure to adequately protect existing customers could result in existing customers facing large cost shifts and being assessed unjust and unreasonable charges in contravention of the plain language of Ind. Code § 8-1-2-4.

[36] *See* I&M Response to CAC DR 1-11 Confidential and Competitively Sensitive Attachment 1, slide 15, stating, [redacted]. *See also* I&M Response to CAC DR 1-11 Confidential and Competitively Sensitive Attachment 7, slide 5 [redacted] (Attachment BI-2-HC)

Q. What are the Five Pillars of Electric Utility Service?

A. The General Assembly enacted I.C. § 8-1-2-0.6 in 2023, providing that "it is the continuing policy of the state that decisions concerning Indiana's electric generation resource mix, energy infrastructure, and electric service ratemaking constructs must consider" certain enumerated attributes of electric utility service referred to as the "Five Pillars of Electric Utility Service" ("Five Pillars" or "Pillars"). The Five Pillars are reliability, affordability, resiliency, stability, and environmental sustainability.

Q. Of what relevance are the Five Pillars to this proceeding?

A. New large load customers create significant risk of negative impacts that could undermine the Five Pillars if action is not taken. Of particular relevance to this proceeding is affordability. The tariff changes are necessary to protect the affordability of rates for all existing customers in the event one or more data centers cease operations or otherwise seek to substantially reduce their load.

I should also note that the Indiana General Assembly has consistently recognized the importance of affordability in utility rates. In 2016, the General Assembly enacted I.C. § 8-1-2-0.5, which provides:

> that it is the continuing policy of the state…to ***use all practicable means and measures***, including financial and technical assistance, in a manner calculated to create and maintain conditions under which utilities plan for and invest in infrastructure necessary for operation and maintenance while ***protecting the affordability of utility services for present and future generations of Indiana citizens***.

(Emphasis added). Even if the tariff revisions proposed by I&M and modified herein are not actually needed for many years, adopting them now will help protect future generations of Indiana citizens should such a scenario arise.

Q. Is making adjustments to utility tariffs to address new concerns specific to new large load customers a reasonable response to recent industry trends?

A. Yes. As I have shown, new data centers pose unprecedented, enormous risks to I&M's ratepayers. These risks were not contemplated when I&M's current rates and tariffs were designed and approved, and they cannot be effectively mitigated in a transparent, consistent manner without significant, substantive changes to I&M's tariffs.

IV. TARIFF I.P. ENHANCEMENTS

Q. What is I&M proposing with respect to Tariff I.P.?

A. I&M is proposing to modify Tariff I.P. to address large load customers whose contract capacity exceeds 150 MW or is reasonably expected to grow to exceed 150 MW at one or more aggregated premises. The proposed terms include:

1) A contract term for an initial period of 20 years and provisions to address assignment of rights or delegations of obligations under the Contract;
2) A Contract Termination Fee that would only apply should there be a permanent closure during the contract term;
3) Provisions that allow a customer to reduce its contract capacity by up to 20% during the contract term;
4) A 90% monthly minimum billing demand; and
5) An increased amount of collateral to be provided by the customer.

These terms would only apply to new loads, as I&M does not have any current customers that come close to meeting the 150 MW threshold on Tariff I.P.

Q. What aspects of I&M's proposed tariff revisions do you generally agree with?

A. I broadly support I&M's proposed tariff revisions as necessary and reasonable, although I recommend certain revisions to address specific issues identified below. I appreciate that I&M is seeking reasonable changes to its existing tariff to accommodate new load, while taking a proactive approach to protecting existing customers from potential negative impacts. I also strongly agree with I&M's decision to serve new large load customers under a published tariff rather than through individually negotiated special contracts, which are often kept confidential.[37] Such an approach is more transparent, administratively efficient, and fair to existing and potential new customers.

Q. Please respond to I&M's first term regarding a 20-year contract term.

A. I concur with witness Williamson that a minimum 20-year contract term, with a five-year advanced notice of cancellation, is reasonable and necessary for customers with loads of 150 MW or larger. An even longer contract term could be reasonably justified by I&M, because generation and transmission assets are typically designed and constructed to last much longer than 20 years, and often are depreciated over a term longer than 20 years. Therefore, a 20-year contract term still carries risk that I&M would not be made whole if the customer were to cease taking service after 20 years.

I&M has also included a term addressing the proposed assignment of rights or delegation of obligations, which includes a commitment from I&M that it will not unreasonably withhold consent for such an assignment or delegation. This provision strikes a reasonable balance between the need for I&M to have a minimum level of certainty,

[37] Williamson Direct 6:23-26 notes that I&M is open to special contracts to address specific customer issues, such as demand response or sustainability goals.

while still allowing reasonable flexibility for new large loads by allowing them to transfer rights or delegate obligations to another party. Accordingly, I recommend the Commission approve this proposal.

Q. Are there examples of 20-year contract terms being used by large load customers outside of I&M's Indiana service territory?

A. Yes. In Cause No. 45975, the Commission approved a contract term of 20 years between Duke Energy Indiana and Blocke, LLC, i.e., Meta, for electric service to a new hyperscaler data center.

Long-term contracts are also commonly entered into by large load customers like data centers with specific energy-generating resources. For instance, Constellation announced that it has entered into a 20-year agreement with Microsoft to power its PJM data centers by bringing the Three Mile Island nuclear power plant back online.[38] Amazon is developing an up to 960 MW data center campus at the Susquehanna nuclear power plant, which includes a 10-year PPA to receive energy and capacity from the nuclear plant with two 10-year extension options.[39] Oklo announced it had signed a non-binding letter of intent outlining its intention to enter into a 20-year PPA with Wyoming Hyperscale for

[38] "Constellation to Launch Crane Clean Energy Center, Restoring Jobs and Carbon-Free Power to The Grid," September 20, 2024, accessed October 4, 2024 at https://www.constellationenergy.com/newsroom/2024/Constellation-to-Launch-Crane-Clean-Energy-Center-Restoring-Jobs-and-Carbon-Free-Power-to-The-Grid.html

[39] AWS Acquires Talen's Nuclear Data Center Campus in Pennsylvania," March 4, 2024, https://www.datacenterdynamics.com/en/news/aws-acquires-talens-nuclear-data-center-campus-in-pennsylvania/

100 MW of power to the data center operator's campus.[40] And Google has executed 20-year PPA agreements for hundreds of megawatts of renewable energy as far back as 2010.[41]

Q. Please respond to I&M's proposed Contract Termination Fee and provision limiting a reduction in contract capacity to 20% with a five-year advanced notice.

A. The sudden closure or reduction to contract capacity of a large load facility poses a grave risk to I&M and its existing customers, as it could result in hundreds, if not thousands, of megawatts of generation and associated transmission investments totaling billions of dollars made to serve new large load customers being suddenly shifted onto existing customers. Such a scenario would be financially ruinous to I&M and its customers.

Accordingly, I agree that both a Contract Termination Fee and a limitation on reductions to a large load customer's contract capacity are reasonable and necessary tariff modifications. I&M's proposed Contract Termination Fee that would only apply if there is a permanent closure during the contract term provides I&M and existing customers with reasonable assurance that a material portion of stranded assets caused by a large load customer would be covered by the customer, even if they were to cease operations. This provision would not have any negative impacts on these large load customers if their facilities operate as planned.

Q. Are you recommending any changes to these two proposed terms?

A. Yes. First, the Contract Termination Fee proposed by I&M would be equal to only five years of minimum bills. As I&M witness Williamson's figures AJW-1 and AJW-2

[40] "Oklo Partners with Wyoming Hyperscale to Deliver 100 Megawatts to its Data Centers," May 23, 2024, accessed October 4, 2024 at https://oklo.com/newsroom/news-details/2024/Oklo-Partners-with-Wyoming-Hyperscale-to-Deliver-100-Megawatts-to-its-Data-Centers/default.aspx

[41] "Google Sustainability," https://sustainability.google/operating-sustainably/stories/ppa/

illustrate, there is still significant risk to existing ratepayers of experiencing a substantial net cost under the proposed Contract Termination Fee. I&M's analysis shows that customers are only fully protected under the five-year scenario In contrast, ratepayers could experience net cost shifts of up to nearly $3 billion over the other timespans considered. For example, both the "Low Market" (Figure AJW-1) and "High Asset" (Figure AJW-2) sensitivities showed net costs to existing ratepayers under the 10-, 15-, and 20-year periods, and the "Medium Market" (Figure AJW-1) and "Medium Asset" (Figure AJW-2) sensitivities showed net costs to existing ratepayers under the 15-year and 20-year periods. A Contract Termination Fee equivalent to five years of minimum bills is therefore insufficient for protecting existing customers from large potential cost shifts in the event of the closure of a large load facility.

I recommend the Contract Termination Fee be modified so that it is equivalent to eight years of minimum bills instead of only five years. This adjustment would significantly reduce the risk to ratepayers over a 10-year period, as shown in the figures below that were modified from I&M's workpapers to reflect this change in the Contract Termination Fee amount. This adjustment reduces the potential exposure existing customers will have should these new facilities cease operations early.

Figure 6. Net Benefit / (Cost) at Assumed Average Resource Cost (Modified from Figure AJW-1)

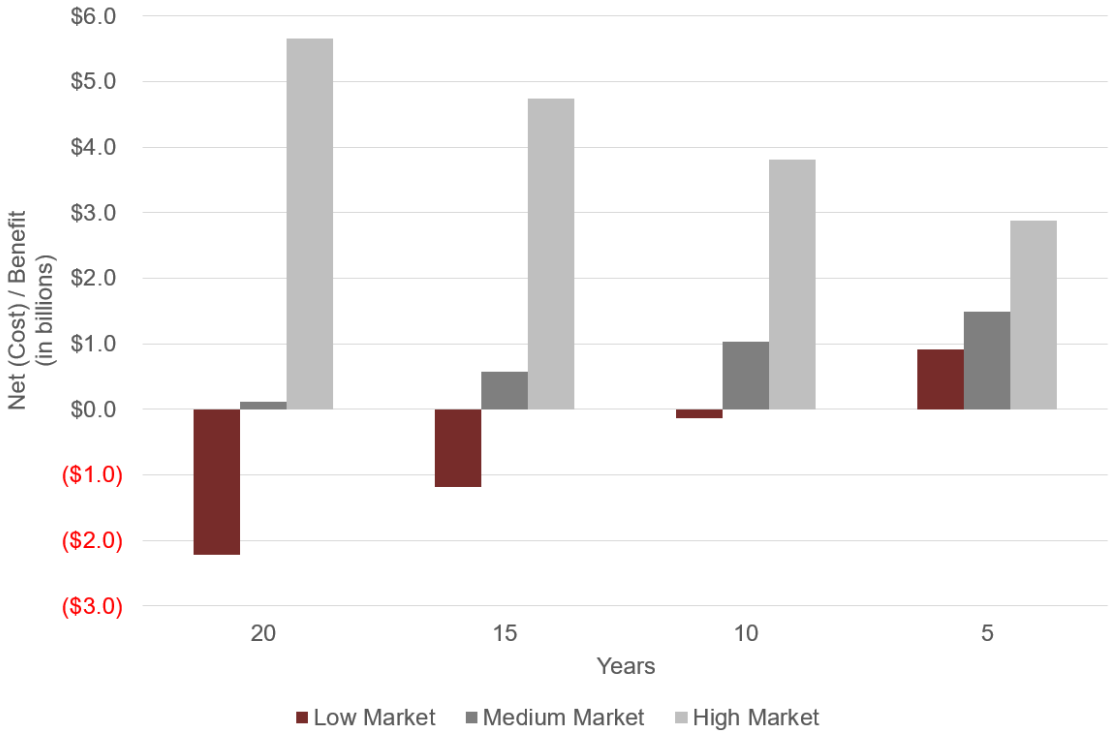
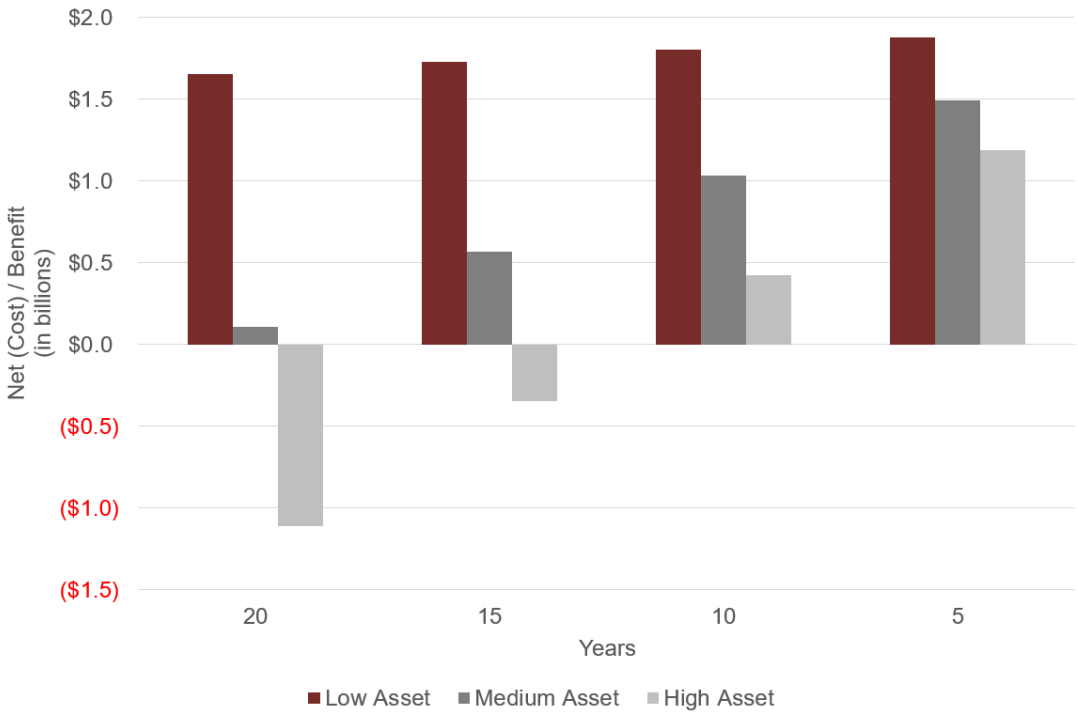


Figure 7. Net Benefit / (Cost) at Assumed Average Market Value of Generation (Modified from Figure AJW-2)



Second, the term to allow a customer to reduce contract capacity by up to 20% with a five-year notice is not adequately protective of existing customers, so I recommend adding two reasonable limitations to contract capacity changes. I&M's proposal to allow a reduction of 20% to contract capacity would mean that a very large load, such as a 2,000 MW data center campus, could reduce contract capacity by an astounding 400 MW—equivalent to approximately 14% of I&M's current Indiana peak load—with only a five-year notice.[42] It would also mean that should I&M realize its expected 4.4 GW of data center load growth by 2030, these large load customers could *collectively* reduce their loads by 880 MW within a five-year period. Such an extreme reduction could impose significant financial stress on I&M and its existing ratepayers, who could be left "holding the bag" on excess capacity in what could be a weak market under such a scenario. Therefore, I&M's proposed term, while a step in the right direction, ultimately provides inadequate protection for current ratepayers.

Therefore, I recommend revising this provision in two ways: (1) capping individual customer reductions to 100 MW in any given year (with a five-year advanced notice); and (2) capping overall reductions across large load customers to 5% of the prior calendar year's I&M-Indiana jurisdictional peak load, on a first-come, first-served basis. These provisions would limit the capacity reduction "cliff" I&M could otherwise face from one

[42] Williamson Direct 4:6.

or more very large customers reducing their contract demand by an amount so large it could be difficult to effectively manage.

Q. Please elaborate on your proposal to cap individual customer reductions to 100 MW in a given year.

A. This modification would only place an additional constraint for customers with a demand of 500 MW or larger, as a 20% load reduction would be equivalent to less than 100 MW for customers that have a load of less than 500 MW.

For example, say a 1,000 MW customer decides to reduce their load by the maximum 20% reduction allowed as quickly as possible. Such a customer would give I&M a 5-year advanced notice of this intention to reduce contract capacity by 20%, or 200 MW. After five years, such a customer would be allowed to reduce their contract capacity by the lesser of 20% of their contract capacity or 100 MW. In this case, the 100 MW limit would be binding, so the customer would be allowed to reduce their contract capacity by 100 MW in Year 6, then further reduce their contract capacity by an additional 100 MW in Year 7, fulfilling their request to reduce total contract capacity by 200 MW. In this example, my proposed modification would spread the impact out over two years instead of one.

Finally, I note that I&M's proposed revisions also allow for an increase or decrease in contract capacity of more than 20% *upon mutual consent*. I do not object to this optionality, although I am concerned by the opacity of this process and the criteria I&M might use to make this determination with limited, if any, Commission oversight. This would, for example, allow a large load customer to reduce their demand by more than 20%

and by more than 100 MW in a year if I&M is in a position to effectively manage such a reduction without negative impacts to other customers.

Q. Please elaborate on your proposal to cap collective overall reductions across large load customers to 5% of I&M-Indiana jurisdictional peak load of the prior calendar year, on a first-come, first-served basis.

A. The intention of this proposal is to mitigate the risk of a scenario where multiple large load customers seek significant reductions in contract capacity at the same time (e.g., in response to a recession or technological changes to hyperscaler data center operations) by phasing in the load reduction rather than allowing for a steep and sudden cliff.

For example, take a scenario where I&M adds 4,400 MW of large load to its current I&M-Indiana peak of approximately 2,800 MW such that its peak load is 7,200 MW in 2029. In the event four large load customers each with a contract capacity of 1,000 MW come to I&M at the beginning of 2030 and request to reduce their contract capacity by 100 MW each, it would result in a 400 MW collective load reduction when implemented in 2035. In this situation, I&M would cap the collective load reduction to 5% of its peak load, i.e., 360 MW. The first three companies to notify I&M of their reduction to contract capacity would therefore be allowed to reduce contract capacity by the full 100 MW requested in 2035, and the last company to provide notification to I&M would be allowed to reduce their contract capacity by the remaining 60 MW available in 2035 (with the

remaining 40 MW contract capacity reduction requested by this customer delayed until 2036).

Q. Are there any cautionary examples from Indiana of the scale of cost shift that can occur when large load customers significantly reduce their contract demand?

A. The adoption of Rate 831 in NIPSCO's rate case (Cause No. 45159) provides a poignant example of the significant interclass cross-subsidy that can occur when large customers suddenly reduce their contract capacity, shifting legacy costs onto remaining customer load. NIPSCO did not have a customer termination or other "exit" fee in place, nor did it limit load reductions to a reasonable level to prevent large cost shifts. As a result, approximately $40 - $94 million annually in legacy costs were shifted from a small handful of large industrial customers onto other customer classes.[43] Since the approval of Rate 831, NIPSCO's residential rates have soared to the point that they are now the highest electricity bills in Indiana, according to the IURC's most recent bill survey.[44] It is prudent for I&M to take reasonable steps to avoid a similar outcome for its ratepayers should its large load customers discontinue or significantly reduce service in the future, even if the conditions today make such a scenario appear unlikely to some.

Q. Please respond to I&M's fourth Tariff I.P. revision, which would raise the monthly minimum billing demand from 60% to 90%.

A. I strongly agree with I&M's proposal to increase the minimum billing demand. I&M will be making large generation and transmission investments to serve these 24/7, large, inflexible loads. As I&M witness Williamson noted, "the difference between a 60 percent

[43] IURC Cause No. 45772, Direct Testimony of Ron Nelson 51:16 through 52:5.
[44] IURC Residential Electric Bill Survey, July 2024.

and 90 percent minimum billing demand can be the revenue requirement associated with the cost of service of one or more power plants,"[45] so "a drop in billing demand to 60 percent by just one of these customers could have significant negative financial consequences for I&M and its customers."[46] I completely agree. Modifying the minimum billing demand in Tariff I.P. for large load customers is a prudent and reasonable adjustment to mitigate this risk.

My only concern is whether I&M's proposal to increase it to a 90% billing demand minimum goes far enough. As shown in I&M witness Williamson's Figure AJW-4, a 90% minimum bill would still allow a 1,000 MW customer to reduce their expected bill from $492 million to a minimum $260 million, which could create a $232 million revenue reduction. While I think a strong argument can be made for further strengthening this provision (e.g., to a 95% minimum billing demand), I believe I&M's proposal strikes a reasonable balance at this time by reducing financial risk to I&M and its ratepayers while still providing some amount of flexibility to large load customers. Therefore, I recommend the Commission adopt this term as proposed by I&M.

Q. Do I&M's demand charges cover all its "fixed" demand-related costs?

A. No. The $10.194/kWh demand charge is comprised of only about 56% of all production costs classified as demand-related, according to I&M. The remaining 44% of production demand-related cost is included in Block 1 energy charge of $0.05703/kWh.[47] The minimum demand charge of $14.7/kW is comprised of approximately 69% of all

[45] Williamson Direct 14:21-23.
[46] *Id.* at 14:17-20.
[47] I&M Response to DCC DR 1-7 (Attachment BI-2).

production costs classified as demand-related.[48] Therefore, even under a 90% minimum billing demand, a large load customer might not pay its full cost of service, depending on their electricity usage.

Q. Please respond to I&M's fifth term, which addresses collateral requirements.

A. I&M is proposing to require customers with loads of above 150 MW to provide collateral based upon the creditworthiness of the customer. I&M does not expect large load customers to post collateral in the form of a cash deposit, however, given the collateral requirements. Instead, it anticipates that large load customers would use other means of posting collateral, such as a letter of credit or parent guarantee.[49]

I agree with I&M that this is a necessary and reasonable term to address the size and concentration risk of large load customers. Big tech companies like Amazon, Google, and Microsoft planning large data centers in I&M's service territory should be easily able to fulfill this requirement given their creditworthiness and parent companies that are among the wealthiest entities in human history. This provision would therefore significantly mitigate risk to I&M and its customers without imposing an unreasonable or undue burden on large load customers.

Therefore, I recommend the Commission adopt this term as proposed by I&M.

[48] I&M Response to DCC DR 1-8 (Attachment BI-2).
[49] I&M Response to Google DR 2-13 (Attachment BI-2).

V. COST ALLOCATION

Q. What issues relating to cost allocation are appropriate to address in this proceeding?

A. Most cost allocation issues, such as the appropriate cost allocation methodologies and allocators, will be determined in separate proceedings, e.g., rate cases, and could be considered outside the scope of the instant proceeding. However, given the size of the near-term investments contemplated for new large loads, this proceeding is the appropriate venue for considering whether new large loads should have the costs of all I&M investments made to serve them co-mingled with investments made by I&M to serve existing customers. I believe it is prudent for the Commission to take action to protect current ratepayers from paying the costs associated with certain investments planned for these large load customers.

Q. What provisions govern the costs of interconnecting a new large load customer?

A. I&M summarized this issue as follows:

> Costs to interconnect new customers can generally be categorized two ways: direct connect facilities and required upgrades. Direct connect facilities include the work required to attach the customer load to the larger transmission network, including a new station and line work to tie the station to the grid. Required upgrades can include any work outside the direct connect facilities to address any identified reliability violations attributed to the new load. Per the Indiana Tariff Terms and Conditions of Service, 14. Extension of Service**, customers are only assigned costs for direct connect facilities if those costs exceed 2.5 times the expected revenue of the new load.**[50]

(Emphasis added.) In other words, it is unlikely that new large load customers will be directly assigned the costs for direct connect facilities, given the revenue from a new large load customer would exceed the threshold. This could shift hundreds of millions of dollars

[50] I&M Response to CAC DR 1-2(c) (Attachment BI-2).

in direct connect facility costs caused by new data centers owned by multi-trillion-dollar companies onto I&M's current ratepayers, creating significant cross-subsidization concerns. While I believe the tariff is reasonable for smaller load customers that have more limited connection costs, large load customers can have extraordinarily large connection costs. It is unreasonable for these costs, unquestionably caused by the large load customers, to be passed on to other ratepayers.

Q. What do you recommend with respect to assignment of direct connect facilities?

A. I recommend that these costs be directly assigned to the large load customer causing the costs and that I&M Schedule of Tariffs Terms and Conditions of Service, 14. Extension of Service, be waived for new large loads so that they are ineligible under this provision. To the extent necessary to implement this proposal, I request the Commission grant a waiver 170 Ind. Admin. Code 4-1-27 with respect to large load customers.

Q. In general, is it appropriate for new large load customers to be allocated transmission costs as part of class cost of service studies?

A. Yes. New large load customers will be using existing transmission assets to deliver power to the customer facilities.[51] It is therefore appropriate to include them in the cost of service study and allocate a share of transmission costs to their customer class accordingly.

Q. How should generation costs be allocated to new large load customers?

A. New large load customers will require an entire new fleet of resources to be brought online with extraordinary haste to meet their enormous, inflexible loads. Furthermore, to my knowledge, these large load customers all have ambitious zero-carbon emission goals, meaning the entire resource fleet I&M will need to procure will likely need to be zero-

[51] I&M Response to OUCC DR 2-7 (Attachment BI-2).

carbon resources. To the extent I&M procures fossil-based resources to meet new large load customer needs, I am concerned that large load customers will use accounting tricks to claim their facilities are powered by carbon-free electricity,[52] while undermining the environmental sustainability of I&M's portfolio and creating substantial risk to other ratepayers of future costs of associated environmental regulations.

The cost of procuring a new generation fleet to meet the more than doubling of load by the end of the decade could be quite high relative to I&M's existing resources given recent capacity conditions in PJM and the premium placed on zero-carbon resources to meet state clean energy requirements and corporate sustainability commitments. I&M has seen significant cost increases to generation resources in recent years, including the current IRP cycle that reflects an approximate doubling of the capital cost of most types of resource options relative to its 2021 IRP (Table 1). Given these constraints, including the inability to procure these resources in an orderly and measured manner due to the massive short-term need, the new resource portfolio necessary to meet new large load customers has a unique and unprecedented nature to it. It is likely that it will be significantly more costly than I&M's existing resources that were procured and have been paid for by existing

[52] Isabel O'Brien, "Data center emissions probably 662% higher than big tech claims. Can it keep up the ruse?" September 15, 2024, https://www.theguardian.com/technology/2024/sep/15/data-center-gas-emissions-tech

customers. Lumping large new load customers with existing customers could create significant cross-subsidization concerns, raising costs for current I&M customers.

Table 1. I&M's IRP Resource Cost Assumptions (Overnight Cost in First Year Available)[53]

	Upfront Capital Cost ($/kW)		
Technology	2021 IRP	2024 IRP	Change
New CT	$ 738	$ 1,500	103%
New CC	1,031	2,000	94%
SMR	6,750	11,700	73%
4hr Battery	1,319	2,000	52%
Solar	1,350	2,500	85%
Solar+Storage	1,535	3,100	102%
Wind	1,449	3,000	107%

Q. What do you propose instead?

A. I recommend that the portion of a new large load customer's load in excess of 150 MW be "firewalled" from existing ratepayers with respect to the cost allocation and cost recovery of generation costs. In other words, I&M would procure a separate resource portfolio specifically for new large loads to meet their capacity, energy, and ancillary services needs. These costs would then be exclusively allocated to the new large load customers. The new large load customers would have the first 150 MW of load included in I&M's class cost of service study as if it was any other Tariff I.P. customer's load, and the large load customer would pay the Tariff I.P. rates and charges associated with the first 150 MW of load. I&M would establish separate, additional charges for large load customers that would apply to

[53] 2021 IRP cost assumptions based on Exhibit D, https://www.indianamichiganpower.com/lib/docs/community/projects/IM-irp/2021IMIRPReportRevised.pdf; 2024 IRP cost assumptions based on slides 18-20, https://www.indianamichiganpower.com/lib/docs/community/projects/IM-irp/IN_Stakeholder_Meeting_2.pdf

usage above 150 MW, designed to recover I&M's return of and on generation resources procured exclusively for large load customers. This ensures non-discriminatory access for loads of up to 150 MW, while making additional terms for the portion of loads in excess of that amount to properly allocate those costs and avoid rate subsidization.

VI. DEMAND RESPONSE AND LOAD SHEDDING

Q. Please describe the relevance of demand response to this case.

A. New large load customers could provide a substantial additional demand response resource for the grid. Demand response is an affordable and environmentally sustainable option that can enhance reliability of the system. It is reasonable and prudent to include participation in a demand response program as a condition for taking service for loads above 150 MW.

Q. You previously noted that hyperscaler data centers are inflexible loads. Notwithstanding this fact, are there still opportunities for demand response?

A. Yes. My understanding is that data centers typically have on-site backup generation, which could potentially allow such a customer to shift certain loads behind the meter during a grid emergency when a data center is called upon to reduce demand. (Given the harmful air pollution impacts of what typically are diesel generators, this option should be utilized only during a grid emergency.)

In addition, hyperscaler data centers are being utilized for AI. This includes AI training, which involves feeding large quantities of data into an AI model to "teach" it how to perform a task, and AI inference, which uses a trained AI model to generate new output (e.g., words, images, music) based on that training. AI training models are relatively curtailable, whereas AI inferencing is far less flexible (e.g., you want an instant result when

asking an AI chatbot a question).[54] The challenge with obtaining curtailable power from data centers could be more of an economic issue, with data center owners desiring to operate their facilities at high utilization rates given the large capital investments, rather than a technical issue, meaning reasonable financial incentives may be inadequate for inducing participation.

Q. Did I&M propose any demand response provisions as part of serving large load customers?

A. No.

Q. What are some options available to incent demand response?

A. There are several options. First, I&M can promote demand response to its prospective large load customers and consider special arrangements with such customers specific to demand response to the extent existing tariffs are insufficient for addressing unique issues of these customers.

Second, as a condition of service, I&M could include a provision that provides that new large load customers who do not participate in one of their demand response offerings would be prioritized for involuntary load shedding in the event there is insufficient generation available and PJM directs I&M to conduct load shedding.

Alternatively, or in addition, I&M could require that once a given threshold in new large load has been added to its system, additional large load above that will be required to participate in demand response as a condition of service. This could be implemented after

[54] *See, e.g.,* Shayle Kann's interview with Microsoft's former VP of Energy, "Under the Hood of Data Center Power Demand," at 22:12 through 24:00 https://www.latitudemedia.com/news/catalyst-under-the-hood-of-data-center-power-demand

a certain level of new large load customers begin service, e.g., for all new large loads after I&M has interconnected the first 2,000 MW of large load.

Q. What do you recommend?

A. It is critical that I&M and the Commission affirm and take the necessary actions now to ensure that residential customers will be protected, to the maximum extent possible,[55] from potential rolling blackouts that could arise as a result of the enormous load growth from data centers. I&M should never disconnect a residential community—putting people's lives in danger—if it can disconnect or reduce load from a data center instead.

Second, I recommend that the Commission add a requirement for all new large load customers who have not executed a transmission Letter of Agreement as of the date of the Commission's final order that they take service under an existing demand response tariff as a condition of service.

In addition, I recommend the Commission consider holding a public technical conference, collaborative, or round table on demand response opportunities for new large load customers that would be open to all Indiana utilities and stakeholders. Given this issue impacts multiple Indiana utilities, it would be beneficial and efficient to have a forum for collectively coordinating on this issue and charting commonsense solutions that are consistent with Indiana's Five Pillars.

[55] I acknowledge there could be specific situations where there could be load shedding required for residential customers based on the nature of the emergency. My proposals in no way should be construed to constrain the actions I&M can take in an emergency to ensure the provision of safe and reliable power.

VII. REPORTING REQUIREMENTS

Q. What challenges with transparency exist with respect to new large loads?

A. There has been a significant lack of transparency with these new loads—both generally, and in response to specific data requests. For example, with respect to new large loads coming to I&M's service territory, Google and Microsoft refused to answer CAC data requests about their anticipated load and electricity consumption,[56] and Microsoft also refused to identify its forecasted load factor.[57] CAC counsel reached out to counsel to these parties and requested to execute a non-disclosure agreement with each respective company so that CAC could obtain this pertinent information, but, thus far, we have not received a proposed non-disclosure agreement or the confidential information.

I&M has also refused to answer pertinent questions about the investments being made to serve these customers, citing to non-disclosure agreements.[58] There has been no information provided about other critical aspects of these projects, such as their water consumption, noise and light pollution, and amount of sales tax avoided under the State's exemption for data centers.

Q. Do you have any other recommendations at this time?

A. Yes. First, the Commission should order I&M not to enter into any new or modified NDAs with large load customers that would preclude I&M from sharing pertinent information with parties like CAC that do not have a competitive interest under an appropriate NDA in a regulatory proceeding. Utilities like I&M should not be able to hide relevant information

[56] Microsoft Response to CAC DR 1.1 and 1.2; Google Response to CAC DR 1.1 and 1.2 (Attachment BI-2).
[57] Microsoft Response to CAC DR 1.3.
[58] I&M Responses to CAC DR 1.5(d) and (e), 1.6(d) and (e),

from parties and the Commission on such basis. Such extreme secrecy is the antithesis to the Commission's aims of making decisions in the public interest and ensuring utilities provide safe and reliable service at just and reasonable rates.

Given the significance of these new large load customers and the rapid pace at which load will be increasing, it is also critical that stakeholders be kept apprised of developments with respect to new large load customers. Therefore, I recommend that the Commission direct I&M to submit on a quarterly basis going forward a report in this docket that provides the following information with respect to large load customers:

- Executed electric service agreements and transmission Letters of Agreement (quarterly additions and cumulative total)
- Breakdown of investments made by I&M to serve large load customers (quarterly additions and cumulative total) for (1) direct connect facilities; (2) local network upgrades; (3) other transmission investment; (4) other distribution system investment (if applicable); and (5) generation investment.
- A copy of each executed Transmission Letter of Agreement and electric service agreement (to the extent not previously provided in a quarterly report)
- Description of each new resource procured for large load customers (name, location, MW)
- MW load in service (quarterly additions and cumulative total)
- MWh sales (prior quarter and cumulative total)
- Contract Termination Fees assessed (number of fees assessed and dollar amount of each)
- Notice of reduction to contract capacity (for each notice submitted to I&M of an intention to reduce contract capacity, identify the MW reduction)
- Status update on prospective large load customers that provides the number of customers and total load at the following development stages: (1) expressed interest; (2) undergoing AEP Transmission Planning internal analysis; (3) Executed LOA; (4) executed electric service agreement; (5) facility in service.

CAC is open to collaborating in good faith with I&M, the OUCC, and other interested stakeholders on such reporting requirements to further clarify and refine these reporting metrics and ensure confidential information is protected, while still providing an appropriate level of transparency on this important issue of public interest.

VIII. RECOMMENDATIONS

Q. Please summarize your recommendations.

A. In response to the five Tariff I.P. revisions proposed by I&M, I recommend the following:

I&M Proposal	**CAC Recommendation**
20-year term	Adopt as proposed
Contract Termination Fee based on 5 years of minimum bills	Contract Termination Fee based on 8 years of minimum bills
Up to 20% reduction to contract capacity	Adopt as proposed and add two constraints to contract capacity reductions: 1) Capped at 100 MW per large load customer 2) Capped at 5% of I&M-Indiana's prior-year peak load across all large load customers
90% monthly minimum billing demand	Adopt as proposed
Increased collateral	Adopt as proposed

I also make the following additional recommendations with respect to serving large load customers, I recommend the Commission:

- Directly assign all direct interconnect facility and local upgrade costs to new large load customers by waiving, to the extent necessary, provisions in Indiana Administrative Code and I&M's terms and conditions, 14. Extension of Service.
- Direct I&M to establish a separate "firewalled" portfolio of generating resources to serve the energy, capacity, and ancillary service needs for the portion of a new large load customer's load in excess of 150 MW, and to allocate the costs of this portfolio exclusively to large load customers.
- Direct I&M to clarify how it will protect residential customers from rolling blackouts should large load customer load growth lead to insufficient resource availability that results in mandatory load shed conditions.
- Add a requirement for all new large load customers that have not executed a transmission Letter of Agreement as of the date of the Commission's final order that they take service under an existing demand response tariff as a condition of service.
- Consider holding a public technical conference, collaborative, or round table on demand response opportunities for new large load customers.

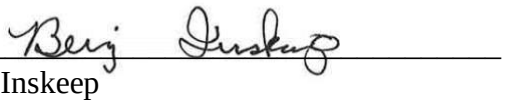
- Order I&M not to enter into any new or modified NDAs with large load customers that would preclude I&M from sharing pertinent information with parties like CAC that do not have a competitive interest under an appropriate NDA in a regulatory proceeding.
- Establish a quarterly reporting requirement for I&M on its large load customer load growth and associated investments, as detailed above.

Q. Does this conclude your testimony?

A. Yes.

VERIFICATION

I, Ben Inskeep, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



October 15, 2024

Ben Inskeep

ATTACHMENT BI-1

Attachment B-1: Benjamin Inskeep's Expert Witness Experience

Indiana Utility Regulatory Commission

Cause No.	Case Description
46038	Duke Energy Indiana 2024 Rate Case
45947	NIPSCO CT CPCN
45990	CenterPoint 2023 Rate Case
45564 S1	CenterPoint and Texas Gas Transmission Agreement Cost Allocation
45967	NIPSCO 2023 Gas Rate Case
45933	I&M 2023 Rate Case
45911	AES Indiana 2023 Rate Case
45903	CenterPoint Culley East Coal Ash Compliance Project (Re-filed)
45894	CenterPoint 2024-28 TDSIC
45870	Indiana-American Water 2023 Rate Case
45849/45850	NIPSCO Electric/Gas 2024-26 DSM
45816	IURC Investigation regarding the Infrastructure Investment and Jobs Act
45868	I&M 4 Solar Projects
38703 FAC 133-S1	AES Indiana Eagle Valley Outage
45504	AES Indiana Excess Distributed Generation Tariff
45505	NIPSCO Excess Distributed Generation Tariff
45506	I&M Excess Distributed Generation Tariff
45508	Duke Energy Indiana Excess Distributed Generation Tariff
45700	NIPSCO Michigan City Coal Ash Compliance Project
45701	I&M Demand-Side Management Plan 2023-2025
45722	CenterPoint Securitization of AB Brown
45740	Duke Energy Indiana and International Paper Special Contract
45749	Duke Energy Indiana Coal Ash Compliance Project
45772	NIPSCO Electric Rate Case
45775	Duke Energy Indiana Low-Income Consumer Protections

45795	CenterPoint Culley East Coal Ash Compliance Project
45797	NIPSCO Schahfer Coal Ash Compliance Project
45803	Duke Energy Indiana Demand-Side Management Plan 2024-2026
45836	CenterPoint Wind Project CPCN
45843	AES Indiana EV Portfolio

Kentucky Public Service Commission

Case No.	Case Description
2020-00174	Kentucky Power's 2020 Rate Case
2020-00349	Kentucky Utilities' 2020 Rate Case
2020-00350	Louisville Gas & Electric's 2020 Rate Case

ATTACHMENT BI-2

INDIANA MICHIGAN POWER COMPANY
CITIZENS ACTION COALITION OF INDIANA, INC
DATA REQUEST SET NO. CAC Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO CAC 1-1

REQUEST

Please refer to the direct testimony of Andrew J. Williamson.
Please refer to 5:1-13, identifying approximately 4,200 MW (i.e., 7,000 MW future load – 2,800 MW current load) of hyperscaler load growth by 2030. Please also refer to I&M IRP slides, 6/27/2024, slide 26 ("Considerations for New Hyperscaler Loads (HSL) in IRP," identifying approximately 4,400 MW of hyperscaler load growth by 29/30).

a. Please confirm that these separate references refer to identical data center loads. To the extent Mr. Williamson's testimony has factored in or made changes to the hyperscaler load forecast since the information was presented on slide 26 at the 6/27/2024 IRP meeting, please describe in detail those changes that have occurred.
b. Please provide in spreadsheet format I&M's monthly load forecast (both forecasted peak or contract MW capacity and MWh of electricity purchases) associated with new data center / hyperscaler loads for the longest period of time available (e.g., 20-year forecast).
c. To the extent I&M has hyperscaler load forecasts for different scenarios or sensitivities (e.g., a low or high growth case), please provide those load forecasts in spreadsheet format and provide a narrative describing how such scenarios or sensitivities were constructed, the main differences from the base case, and key differences in assumptions regarding the hyperscaler load growth.
d. Please describe the factors considered by I&M to determine which data centers are included in I&M's base load forecast for the IRP and the "more than 7,000 MW [of total peak load] by approximately 2030." E.g., does the customer need to have a signed energy services agreement?
e. Of the approximately 4,200 MW to 4,400 MW of new hyperscaler load by 2030 identified by I&M, please identify:
    i. the total MW associated with new AWS data centers (see https://www.aboutamazon.com/news/aws/aws-indiana-investment-11-billion)
    ii. the total MW associated with new Google data centers (see https://www.iedc.in.gov/events/news/details/2024/04/26/gov.-holcomb-announces-google-is-building-a-2b-data-center-in-northeast-indiana)
    iii. the total MW associated with other data centers not included above. Please describe how this total MW was calculated and provide any underlying calculations or support used to determine this forecast in spreadsheet format, to the extent available. To the

extent specific additional hyperscaler data center projects have been announced for I&M's service territory other than the AWS and Google announcements identified above, please identify and describe them.

f. With respect to converting a data center's forecasted MW load into a forecast of MWh sales, what load factor does I&M believe is appropriate to assume for a typical hyperscaler data center facility located in its service territory if more facility-specific information is not available or has not been provided? Please explain.
g. What is the type and scale (MW) of backup generation that new hyperscaler facilities are considering or planning to install in I&M's service territory, based on communications that I&M or AEP have had with hyperscaler facility owners or other research that I&M or AEP is aware of?
h. What is the amount of demand response potential from the new hyperscaler forecasted load? Please provide in spreadsheet format any analysis that has been conducted or forecast that has been completed to analyze demand response potential from new hyperscaler load.
i. Are hyperscaler facilities bringing or developing firm power? If so, what type/fuel and MW?
j. Are the hyperscaler facilities deploying back up storage? If so, what fuel and MW?

RESPONSE

I&M notes the phrases "data center" and "hyperscaler facility" are not defined in the request. For the purposes of this response, I&M interprets data center and hyperscaler facility to refer to an individual customer site. Additionally, I&M objects to subparts, b., e., g., h., i., and j., as these questions seek customer specific information that is confidential, proprietary, competitively sensitive, and/or trade secret. Moreover, such information was provided to I&M pursuant to Non-Disclosure Agreements that restrict I&M for providing such customer-specific information to third parties. Finally, I&M objects to subpart j. as "firm power" is not defined. Subject to and without waiver of the foregoing objections, I&M provides the following response.

a. Confirmed. These refer to the same data center loads and as noted in Mr. Williamson's testimony on page 5, line 6, he indicates, "...approximately 2,800 MW **to more than** 7,000 MW by approximately 2030." Emphasis added. Mr. Williamson's testimony has not factored in or made changes from the slide referenced.
b. Subject to the above objection, please see the 46097_I&M_CAC_1-01b_Confidential and Competitively Sensitive Attachment 1 for the preliminary hyperscale load forecast through 2032. The forecast is still in development and subject to change.

INDIANA MICHIGAN POWER COMPANY
CITIZENS ACTION COALITION OF INDIANA, INC
DATA REQUEST SET NO. CAC Set 1
IURC CAUSE NO. 46097

c. I&M understands this question to refer to I&M's IRP. I&M's 2024 IRP will include a scenario that uses I&M's base load forecast, that includes the hyperscaler load, along with a high and low load forecast. These scenarios are still under development.
d. One factor considered for the base load forecast for the IRP is executed or in progress Transmission Letters of Agreement. A customer does not need to have a signed energy services agreement for inclusion in the load forecast.
e. As indicated in the above objections, I&M is not permitted at this time to reveal customer-specific information related to the identified data centers.
f. I&M uses a 90% load factor. This is consistent with load factors AEP has observed at existing hyperscale locations in its territory and estimates provided by the respective customers.
g. It is I&M's understanding that hyperscaler customer operations may include on-site backup generation, however I&M does not have further details on the specific resources that will be utilized or its potential to operate in situations other than for emergency backup.
h. I&M and these customers are in preliminary discussions evaluating demand response potential, however no specific demand response opportunities have been identified at this time.
i. See above objection. Firm power has not been defined and it is unclear what is meant by firm power.
j. In the discussions I&M and these customers have had to date, no specific back up storage has been identified at this time.

INDIANA MICHIGAN POWER COMPANY
CITIZENS ACTION COALITION OF INDIANA, INC
DATA REQUEST SET NO. CAC Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO CAC 1-2

REQUEST

Please refer to I&M's process for interconnecting a hyperscaler load in Indiana.

a. Please describe and provide documentation that details I&M's policy and procedures for interconnecting a hyperscaler load or other new large industrial customer.
b. Please describe each step of the process for interconnecting a hyperscaler load (e.g., what studies are conducted, how long do those take, what negotiations are conducted, etc.).
c. Please identify each type of cost associated with interconnecting a hyperscaler load. For each type of cost, please identify whether it is directly assigned to the prospective hyperscaler load.
d. Please describe and identify the range of total interconnection costs for a prospective hyperscaler load of 150 MW or larger.
e. Please confirm that no hyperscaler has entered into an interconnection service agreement with I&M at this time. If not confirmed, please explain.
f. Please confirm or deny with explanation that it is I&M's intention to require the following data centers to take service under the Industrial Power tariff, as modified and proposed in I&M's case-in-chief.
    i. New AWS data centers (see https://www.aboutamazon.com/news/aws/aws-indiana-investment-11-billion)
    ii. New Google data centers (see https://www.iedc.in.gov/events/news/details/2024/04/26/gov.-holcomb-announces-google-is-building-a-2b-data-center-in-northeast-indiana)

RESPONSE

a. AEP's requirements for connecting new loads to its transmission system can be found here: https://www.aep.com/assets/docs/requiredpostings/TransmissionStudies/Requirements/AEP_Interconnection_Requirements_Rev5.pdf.
Further, the needs and solutions for known, signed load additions must go through the PJM M-3 process (OATT, Attachment M-3 (pjm.com)). The M-3 process is the process through which all supplemental projects, including new customer requests, must go through so that PJM and PJM stakeholders can understand and evaluate impacts all projects proposed by a Transmission Owner have on the overall transmission system.

b. Generally, once a customer has indicated their desire to move forward with an interconnection, AEP Transmission Planning will perform an internal analysis to understand what impact the proposed load will have on the system. Depending on the location, amount, and other loads being requested, this study can take several weeks to perform and upgrades identified. The scope of work required to connect the new load is then passed to the AEP engineering and project management teams to develop a timeline and estimate for the work to be completed, which takes 4-6 weeks to develop. This information is then included in a Letter of Agreement between the Company and the Customer with other terms and conditions included that are negotiated on a customer by customer basis. This negotiation can vary by customer. Once the agreement is signed by both Company and the Customer, the load is then submitted as a need and, subsequently, a solution to PJM to comply with the M-3 process to include the new load in future RTEP cases. Through the M-3 process, PJM may identify other upgrades required to serve the requested load which could impact the scope of work required to connect in the requested load. If at any point in the development of the above, the customer elects to change a component of their project or AEP is made aware of a change that impacts the system in this area, timelines may be extended. The AEP and I&M teams meet as needed with the customer to confer on technical specifications and align on plans.

c. Costs to interconnect new customers can generally be categorized two ways: direct connect facilities and required upgrades. Direct connect facilities include the work required to attach the customer load to the larger transmission network, including a new station and line work to tie the station to the grid. Required upgrades can include any work outside the direct connect facilities to address any identified reliability violations attributed to the new load. Per the Indiana Tariff Terms and Conditions of Service, 14. Extension of Service, customers are only assigned costs for direct connect facilities if those costs exceed 2.5 times the expected revenue of the new load.

d. There is not a direct correlation between megawatts and costs. Cost is dependent upon the transmission voltage at which the customer is connecting, location of the customer in relation to existing facilities, strength of the existing transmission system in the area, number of customer owned transformers, and other factors.

e. I&M has signed Transmission Letter of Agreements with two customers.

f. It is I&M's intention that the customer's listed will take service under the IP tariff as modified. The Company confirms that it is the electric utility that will serve all data centers within the Company's assigned service area. The Company does not understand the meaning of the phrase "based on information currently known or believed to be likely by I&M" in the context of the data request. The Company states that its confirmation is based on the company's current understanding of Indiana law. The Company proposes to provide electric service to such customers pursuant to the terms reflected in the proposed Tariff IP modifications presented in this Cause.

INDIANA MICHIGAN POWER COMPANY
CITIZENS ACTION COALITION OF INDIANA, INC
DATA REQUEST SET NO. CAC Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO CAC 1-5

REQUEST

Please refer to the Amazon Web Services announcement regarding $11 billion investment in Indiana data centers (see https://www.aboutamazon.com/news/aws/aws-indiana-investment-11-billion).

a. Please confirm that I&M is the electric utility that will serve all these data centers, based on information currently known or believed to be likely by I&M.
b. Please confirm or deny with explanation that it is I&M's intention to require the new load associated with this announcement to take service under the Industrial Power tariff, as modified and proposed in I&M's case-in-chief.
c. Please identify the number of data centers associated with this announcement.
d. Please identify all investments (e.g., upgrades and additions to transmission), their current estimated cost, and whether each cost will be directly assigned to AWS or allocated to I&M customers for investments that I&M plans to make between 2024 and 2030 to interconnect and serve load for these AWS data centers. To the extent some, but not all, investments needed for interconnection have been identified, please provide the information available at this time.
e. Please provide each interconnection service agreement entered into between I&M and AWS associated with these data centers. To the extent no such agreement has been finalized, please describe the current status of negotiating such an agreement and I&M's current estimate on when such agreements are likely to be finalized.

RESPONSE

I&M objects to the request on the grounds and to the extent the request seeks customer-specific information that is confidential, proprietary, competitively sensitive, and/or trade secret. Moreover, such information was provided to I&M pursuant to Non-Disclosure Agreements that restrict I&M for providing such customer-specific information to third parties. Subject to and without waiver of the foregoing objections, I&M provides the following response.

a. Confirm. The Company confirms that it is the electric utility that will serve all data centers within the Company's assigned service area. The Company does not understand the meaning of the phrase "based on information currently known or believed to be likely by I&M" in the context of the data request. The Company states that its confirmation is based on the company's current understanding of Indiana law. The Company proposes to provide electric service to such customers pursuant to the terms reflected in the proposed Tariff IP modifications presented in this cause.

b. Confirm. It is I&M's intention that the customer listed will take service under the IP tariff as modified. The Company does not understand the word "require" in the context of this request. The Company cannot force a customer to locate within its service area. The Company confirms that it seeks to establish a consistent set of reasonable terms and conditions for large load customers and the proposed modifications to Tariff IP are presented to ensure the company has reasonable terms and conditions in place that recognize and address the different needs and unique risks that large load customers present. See Mr. Williamson's direct testimony (page 13) for the company's position regarding customers that have unique needs beyond standard service under the tariff.
c. Please see 46097_IndMich_CAC DR 1-5 Confidential and Competitively Sensitive Attachment 1.
d. As indicated in the above objections, I&M is not permitted at this time to reveal customer-specific information related to the identified data centers.
e. As indicated in the above objections, I&M is not permitted at this time to reveal customer-specific information related to the identified data centers.

INDIANA MICHIGAN POWER COMPANY
CITIZENS ACTION COALITION OF INDIANA, INC
DATA REQUEST SET NO. CAC Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO CAC 1-6

REQUEST

Please refer to the Google announcement regarding a $2 billion investment in Indiana data centers (see https://www.iedc.in.gov/events/news/details/2024/04/26/gov.-holcomb-announces-google-is-building-a-2b-data-center-in-northeast-indiana).

a. Please confirm that I&M is the electric utility that will serve this data center, based on information currently known or believed to be likely by I&M.
b. Please confirm or deny with explanation that it is I&M's intention to require the new load associated with this announcement to take service under the Industrial Power tariff, as modified and proposed in I&M's case-in-chief.
c. Please identify the number of data centers associated with this announcement.
d. Please identify all investments (e.g., upgrades and additions to transmission), their current estimated cost, and whether each cost will be directly assigned to Google or allocated to I&M customers for investments that I&M plans to make between 2024 and 2030 to interconnect and serve load for these Google data centers. To the extent some, but not all, investments needed for interconnection have been identified, please provide the information available at this time.
e. Please provide each interconnection service agreement entered into between I&M and Google associated with these data centers. To the extent no such agreement has been finalized, please describe the current status of negotiating such an agreement and I&M's current estimate on when such agreements are likely to be finalized.

RESPONSE

I&M further objects to the request on the grounds and to the extent the request seeks customer-specific information that is confidential, proprietary, competitively sensitive, and/or trade secret. Moreover, such information was provided to I&M pursuant to Non-Disclosure Agreements that restrict I&M for providing such customer-specific information to third parties. Subject to and without waiver of the foregoing objections, I&M provides the following response.

a. Confirm. The Company confirms that it is the electric utility that will serve all data centers within the Company's assigned service area. The Company does not understand the meaning of the phrase "based on information currently known or believed to be likely by I&M" in the context of the data request. The Company states that its confirmation is based on the company's current understanding of Indiana law. The Company proposes to provide electric service to such customers pursuant to the terms reflected in the proposed Tariff IP modifications presented in this cause.

b. Confirm. It is I&M's intention that the customer listed will take service under the IP tariff as modified. The Company does not understand the word "require" in the context of this request. The Company cannot force a customer to locate within its service area. The Company confirms that it seeks to establish a consistent set of reasonable terms and conditions for large load customers and the proposed modifications to Tariff IP are presented to ensure the company has reasonable terms and conditions in place that recognize and address the different needs and unique risks that large load customers present. See Mr. Williamson's direct testimony (page 13) for the company's position regarding customers that have unique needs beyond standard service under the tariff.
c. Please see 46097_IndMich_CAC DR 1-6 Confidential and Competitively Sensitive Attachment 1.
d. As indicated in the above objections, I&M is not permitted at this time to reveal customer-specific information related to the identified data centers.
e. As indicated in the above objections, I&M is not permitted at this time to reveal customer-specific information related to the identified data centers.

Citizens Action Coalition of Indiana, Inc.
Cause No. 46097
Data Request Set No. 1
Received: September 23, 2024

CAC 1-1

Please refer to IEDC press release "Gov. Holcomb announces Google is building a $2B Data Center in Northeast Indiana," (https://iedc.in.gov/events/news/details/2024/04/26/gov.-holcomb-announces-google-is-building-a-2b-data-center-in-northeast-indiana).

Request:

1-1. What is the forecasted peak load (MW), or range of likely annual peak loads, of the data center in each year through 2030?

Objection: Google objects to this request to the extent it seeks disclosure of information which is proprietary, confidential and/or fits within the definition of a trade secret under Indiana law as it would require disclosure of information directly related to Google's energy consumption and strategic business plans. Google objects to this request to the extent the request seeks information unrelated to a data center or other operation which will not be impacted by I&M's proposed revisions to Tariff IP at issue in this proceeding.

Response: See Objection.

Citizens Action Coalition of Indiana, Inc.
Cause No. 46097
Data Request Set No. 1
Received: September 23, 2024

CAC 1-2

Please refer to IEDC press release "Gov. Holcomb announces Google is building a $2B Data Center in Northeast Indiana," (https://iedc.in.gov/events/news/details/2024/04/26/gov.-holcomb-announces-google-is-building-a-2b-data-center-in-northeast-indiana).

Request:

1-2. What is the forecasted annual electricity consumption (MWh), or range of likely annual electricity consumption, of the data center in each year through 2030?

Objection: Google objects to this request to the extent it seeks disclosure of information which is proprietary, confidential and/or fits within the definition of a trade secret under Indiana law as it would require disclosure of information directly related to Google's energy consumption and strategic business plans. Google objects to this request to the extent the request seeks information unrelated to a data center or other operation which will not be impacted by I&M's proposed revisions to Tariff IP at issue in this proceeding.

Response: See Objection.

Citizens Action Coalition
Cause No. 46097
Data Request Set No. 1
Received: September 30, 2024

CAC 1.1

Request:

1.1. What is the forecasted peak load (MW), or range of likely annual peak loads, of with [sic] each data center that Microsoft has located or plans to locate in I&M's service territory that will commence operations prior to January 1, 2036?

Objection: Microsoft objects to this request to the extent it seeks disclosure of information which is proprietary, confidential and/or fits within the definition of a trade secret under Indiana law as it would require disclosure of information directly related to Microsoft's energy consumption and strategic business plans. Microsoft objects to this request to the extent the request seeks information unrelated to a data center or other operation which will not be impacted by I&M's proposed revisions to Tariff IP at issue in this proceeding.

Response: See objections.

Citizens Action Coalition
Cause No. 46097
Data Request Set No. 1
Received: September 30, 2024

CAC 1.2

Request:

1.2. What is the forecasted annual electricity consumption (MWh), or range of likely annual electricity consumption, of each data center that Microsoft has located or plans to locate in I&M's service territory that will commence operations prior to January 1, 2036?

Objection: Microsoft objects to this request to the extent it seeks disclosure of information which is proprietary, confidential and/or fits within the definition of a trade secret under Indiana law as it would require disclosure of information directly related to Microsoft's energy consumption and strategic business plans. Microsoft objects to this request to the extent the request seeks information unrelated to a data center or other operation which will not be impacted by I&M's proposed revisions to Tariff IP at issue in this proceeding.

Response: See objections.

Citizens Action Coalition
Cause No. 46097
Data Request Set No. 1
Received: September 30, 2024

CAC 1.3

Request:

1.3. What is the forecasted, or likely range of, load factors of each data center that Microsoft has located or plans to locate in I&M's service territory that will commence operations prior to January 1, 2036?

Objection: Microsoft objects to this request to the extent it seeks disclosure of information which is proprietary, confidential and/or fits within the definition of a trade secret under Indiana law by seeking disclosure of information directly related to Microsoft's strategic business plans. Microsoft further objects to the extent that the request seeks disclosure of information related to the location of land or property which is not related to a facility which is not, or will not, be subject to revised Tariff IP, and is therefore outside the scope of this proceeding.

Response: See objections.

INDIANA MICHIGAN POWER COMPANY
INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR
DATA REQUEST SET NO. OUCC Set 2
IURC CAUSE NO. 46097

DATA REQUEST NO OUCC 2-7

REQUEST

Please identify all proposed capital projects in I&M's current project plans, budgets, forecasts, or long-range plans that include transmission or distribution assets that will be used by potential Tariff I.P. customers. Please identify them by location and project number and include expected cost.

RESPONSE

I&M objects to the request on the grounds and to the extent the request is vague and ambiguous. In support of this objection, I&M notes that given the interconnected nature of the electric system, it is unclear what is meant by "transmission or distribution assets that will be used by potential Tariff I.P. customers". I&M further objects to the request on the grounds and to the extent the request seeks an analysis, compilation, calculation, or study that I&M has not performed and to which I&M objects to performing. Subject to and without waiver of the foregoing objections, I&M provides the following response.

The current project plans for potential customers that have started the PJM M-3 process, including estimated costs and timeline, were presented at the June 4, 2024 Transmission Expansion Advisory Committee (TEAC) meeting: 20240604-item-05---aep-supplemental-projects.ashx (pjm.com). Any additional loads that are signed by I&M will also go through the PJM M-3 process. Please see below table for total capital transmission cost estimates, pending PJM review. In addition to the specific projects to interconnect the "potential Tariff I.P. customers," these customers will also be using existing transmission assets to deliver power to the customers facilities. See also response I&M's to DCC DR 1-6(b).

INDIANA MICHIGAN POWER COMPANY
INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR
DATA REQUEST SET NO. OUCC Set 2
IURC CAUSE NO. 46097

Interconnection Projects				
Location	**Authorization Limit**	**State**	**PJM Needs Submittal**	**PJM Solutions Submittal**
Allen Station 345kV &138kV Expansion	$90,732,920	IN	Complete	Complete
Allen Station 345kV &138kV Expansion, Allen-Zodiac 138kV Line Rebuild	$78,281,118	IN	Complete	Not Complete
345kV Station New Carlisle	$68,007,008	IN	Complete	Complete
Kenzie Creek - Thompson 345kV Line	$91,508,043	IN/MI	Complete	Complete
Olive 345kV CBs and Olive-Sorenson 345kV Line By Pass	$92,444,187	IN	Not Complete	Not Complete
Kenzie Creek - Judy Creek 345kV Line	$264,376,826	IN/MI	Complete	Not Complete
Additional System Upgrades				
Location	**Estimate**	**State**	**PJM Needs Submittal**	**PJM Solutions Submittal**
Olive 345kV CB Replacement	$9M	IN	Complete	Complete
Allen-Maddox 345kV Line Rebuild	$107M	IN/OH	Complete	Complete
Meadow Lake 345kV CB Replacements	$34M	IN	Not Complete	Not Complete
Dumont 765kV CB Replacement	$3.9M	IN	Complete	Complete

INDIANA MICHIGAN POWER COMPANY
CITIZENS ACTION COALITION OF INDIANA, INC
DATA REQUEST SET NO. AMAZON Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO AMAZON 1-28

REQUEST

Has I&M analyzed whether its proposed Tariff I.P. modifications may prevent future economic development activities by large loads in its service territory?

a. If so, please describe how such analysis informed its decision for the Tariff I.P. modifications.

RESPONSE

Yes.

a. I&M evaluated past economic development activity. It evaluated the load levels and projected job creation associated. In the past 3 years, new or expanding customers whose incremental demands were less than 150 MW, the overall jobs created per 1 MW were 15.2 in 2023, 11.3 in 2022, and 96.5 in 2021. The jobs created per MW by AWS, as announced on April 25, 2024, is estimated to be less than 1. The three new large load customers together will create an estimated 0.26 jobs per 1 MW. Prior to these three large load customers, I&M's largest economic development project was approximately 100 MW. I&M does not believe the tariff modifications will prevent future economic development. In addition, I&M's proposed tariff modifications do not prevent I&M from entering into customer-specific arrangements with new customers to the extent reasonable, appropriate and necessary, and subject to Commission approval, in support of economic development in Indiana.

INDIANA MICHIGAN POWER COMPANY
GOOGLE LLC
DATA REQUEST SET NO. DATA CENTER COALITION Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO DCC 1-6

REQUEST

Please refer to Williamson Direct Testimony, p. 5, regarding the anticipated growth in Tariff IP load.

a. Please provide a general description of the transmission investment that is required to accommodate an increase in I&M's Indiana peak load from 2,800 MW to 7,000 MW.
b. Please provide I&M's best estimate (or range) of the incremental cost of the transmission investment required to accommodate an increase in I&M's Indiana peak load from 2,800 MW to 7,000 MW.
c. Does I&M anticipate that a portion of the transmission investment required to accommodate an increase in I&M's Indiana peak load from 2,800 MW to 7,000 MW will be considered Regional Facilities as defined in Schedule 12 of the PJM Tariff? If not, please explain.
d. Please provide a general description of generation investment that is required to accommodate an increase in I&M's Indiana peak load from 2,800 MW to 7,000 MW.
e. Please provide I&M's best estimate (or range) of the incremental cost of the generation investment required to accommodate an increase in I&M's Indiana peak load from 2,800 MW to 7,000 MW.

RESPONSE

a. See I&M's responses to CAC DR 1-2(c) and OUCC DR 1-8.

b. A range of incremental cost of the transmission investment required to accommodate this increase in I&M's load is estimated to be between $840 million and $1.05 billion, subject to further evaluation within the PJM framework.

c. No. It is I&M's expectation that these facilities will not be considered Regional Facilities. As described in I&M's response to OUCC DR 1-8, at this time only direct connect and local upgrades are expected to be needed to accommodate the load additions, pending PJM review.

d.-e. I&M will serve these new loads as it does its current load, through a slice of its system, using a diversified set of resources. The future generation resources I&M will require to serve its growing system load will be informed by the Preferred Portfolio I&M develops during its Indiana Integrated Resource Plan process. I&M expects to submit its next IRP to the Commission in March, 2025 and update its IRP approximately every three years thereafter. Future generation needs will be met through a combination of owned

resources (i.e. investments) and contracted purchases (e.g. purchased power contracts, capacity purchase agreements, etc.). The type and cost associated with future generation investments will be informed by a number of factors, including I&M's IRP process, competitive procurement practices, Commission approvals, and financing requirements.

INDIANA MICHIGAN POWER COMPANY
GOOGLE LLC
DATA REQUEST SET NO. DATA CENTER COALITION Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO DCC 1-7

REQUEST

Please refer to Workpaper Attachment AJW-3.

a. What cost functions (production, transmission etc.) are recovered in the Demand Charge of $10.194/kW?
b. What proportion of the $10.194/kW Demand Charge recovers production-related costs?
c. What proportion of the $10.194/kW Demand Charge recovers transmission-related costs?
d. What proportion of the $10.194/kW Demand Charge recovers costs other than production-related and transmission-related costs? Please specify the nature of these costs.

RESPONSE

I&M objects to the request on the grounds and to the extent the request misconstrues the regulatory process, particularly with respect to the terms “recovered” and “recovers”. Customers pay for electric service, not for individual components of that service. Subject to and without waiver of the foregoing objection, I&M provides the following response.

a. The $10.194/kW demand charge is comprised of approximately 56% of all production costs classified as demand-related including non-Network Integration Transmission Service (NITS) Load Serving Entity (LSE) Expense. The remaining 44% of production demand-related cost is included in the Block 1 energy charge of 5.703 cents/kWh.

b. For the purposes of cost allocation and rate-setting, all cost included in the computation of the kW demand charge are classified as production demand related.

c. See I&M’s response to subpart b.; however, the non-NITS LSE expense portion of cost is approximately 3.13%.

d. Please refer to the Company’s responses to subparts a.-c.

INDIANA MICHIGAN POWER COMPANY
GOOGLE LLC
DATA REQUEST SET NO. DATA CENTER COALITION Set 1
IURC CAUSE NO. 46097

DATA REQUEST NO DCC 1-8

REQUEST

Please refer to Workpaper Attachment AJW-3.

a. What cost functions (production, transmission etc.) are recovered in the minimum Demand Charge of $14.700/kW?
b. What proportion of the minimum $14.700/kW Demand Charge recovers production-related costs?
c. What proportion of the minimum $14.700/kW Demand Charge recovers transmission-related costs?
d. What proportion of the minimum $14.700/kW Demand Charge recovers costs other than production-related and transmission-related costs? Please specify the nature of these costs.

RESPONSE

I&M objects to the request on the grounds and to the extent the request misconstrues the regulatory process, particularly with respect to the terms “recovered” and “recovers”. Customers pay for electric service, not for individual components of that service. Subject to and without waiver of the foregoing objection, I&M provides the following response.

a.-d. Please see I&M’s response to DCC DR 1-7 with an exception to 1-7a., the $14.70/kW Demand Charge is comprised of approximately 69% of all production costs classified as demand-related.

INDIANA MICHIGAN POWER COMPANY
GOOGLE LLC
DATA REQUEST SET NO. GOOGLE Set 2
IURC CAUSE NO. 46097

DATA REQUEST NO GOOGLE 2-13

REQUEST

How does the Company plan to use Customer deposits collected under the provisions under the revised provisions of Rate IP? Specifically:

a. Will those funds be kept in restricted accounts?
b. Will those funds be used to support Company operations or capital investments?
c. Will those funds be used as collateral to support Company borrowing?
d. Will those funds be used to support expenses other than direct operations (such as for performance bonuses, pension funding, etc. . .)?

RESPONSE

a.-d. Given the magnitude of these loads and the associated collateral requirements, the Company does not expect large load customers to post collateral in the form of a cash deposit. Rather, the Company expects large load customers to use other means of posting collateral such as a letter of credit, parent guarantee, etc. based on their respective creditworthiness.

Should a large load customer post collateral in the form of a cash deposit, I&M would treat these cash deposits consistent with how it currently handles cash deposits from other customers. Cash deposits are not maintained in restricted accounts and do provide cash flow that may be used by the utility to support its operations in serving its customers.