KEYES&FOX LLP

Via Electronic Case Filing

August 4, 2025

Executive Secretary Lisa Felice
Michigan Public Service Commission
7109 West Saginaw Highway
Post Office Box 30221
Lansing, MI 48909

RE: Case No. U-21859

Executive Secretary Lisa Felice,

Please find attached the following for paperless filing in the above captioned matter:

Corrected Rebuttal Testimony of Shana Ramirez
Proof of Service

Thank you for your consideration.

Sincerely,

/s/ Nikhil Vijaykar
Nikhil Vijaykar
Keyes & Fox LLP
580 California Street, 12th Floor
San Francisco, CA 94104
Tel.: 408-621-3256
E-mail: nvijaykar@keyesfox.com

Counsel to Data Center Coalition

CC: Parties to Case No. U-21859

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the Application of Consumers Energy Company for *Ex Parte* Approval of Certain Amendments to Rate GPD	))))	Case No. U-21859

CORRECTED

REBUTTAL TESTIMONY OF

SHANA RAMIREZ

ON BEHALF OF

THE DATA CENTER COALITION

JULY 9, 2025

Q. STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Shana Ramirez, and I am a Director at Energy and Environmental Economics also known as E3. My business address is 44 Montgomery Street, Suite 1500, San Francisco, CA 940104.

Q. On whose behalf are you filing testimony?

A. I am filing testimony on behalf of the Data Center Coalition ("DCC").

Q. Describe your professional background and experience.

A. I bring over a decade of experience in the energy industry, with a focus on regulatory policy, load forecasting, rate design, and renewable energy development. Prior to joining E3, I held several positions at NV Energy, including in the Rates, Load Forecasting, and Regulatory Affairs departments. Most recently, I served as Program Development Director in the Renewables Department.

In that role, I led a team responsible for advancing innovative power supply solutions and tariff designs for large-load customers, including data centers and other energy-intensive users. This work required close coordination with internal regulatory, legal, and resource planning teams, as well as extensive engagement with external stakeholders such as customers, developers, and regulatory staff.

A key outcome of this work was the design and successful regulatory approval of the Clean Transition Tariff by the Public Utilities Commission of Nevada. This tariff enables large-load customers to procure renewable energy resources to meet their operational needs while aligning customer preferences with state policy objectives. The role also involved negotiating and structuring contracts that included thorough assessments of financial security requirements and risk mitigation provisions.

Earlier in my career, I worked in the insurance sector where I performed actuarial analysis focused on risk assessment and modeling. These skills continue to inform my approach to evaluating utility programs and contract structures.

Q. PLEASE DESCRIBE E3.

A. E3 is an economic consulting firm with more than 30 years of experience specializing in the North American power sector. The firm provides data-driven insights and objective recommendations to a diverse range of clients, including utilities, regulatory agencies, government entities, project developers, investors, and non-profit organizations.

Through its work across all segments of the energy industry, E3 offers a comprehensive understanding of energy markets, resource planning, public policy, regulation, and environmental considerations. The firm is committed to producing clear and impartial analyses. That is why my recommendations are fair and balanced, addressing the needs of both the utility and large-load customers.

Q. Have you previously testified before this Commission?

A. I have not.

Q. What topics are you addressing in your testimony?

A. My testimony addresses financial security requirements for large load customers, including data centers. I review all parties' proposals, outline best practices for credit and collateral frameworks, and recommend a holistic risk-appropriate financial security approach to the Commission. The objective is to protect ratepayers while enabling equitable and scalable integration of large loads into Consumers' system.

I also address the proposed clean energy and renewable resource requirements for data centers. I evaluate all proposals, state my position, and recommend a flexible approach

that supports clean energy options in the context of Michigan's statues and policies for large load customers including data centers in a non-discriminatory way.

Q. How is your testimony structured?

A. My testimony is organized in two parts:

i) <u>Part I: Financial Security</u>

Section I: Overview of financial security and large loads

Section II: Summary of financial security proposals by party

Section III: Best practices for financial security

Section IV: Recommendation to the Commission

ii) <u>Part II: Clean Energy</u>

Section I: Summary of clean energy proposals by party

Section II: Recommendation to the Commission

<u>Part I: Financial Security</u>

Section I: Overview of financial security and large loads

Q. What is financial security?

A. Financial security refers to assets, credit instruments, collateral, or contractual assurances provided by large-load customers to the utility. It serves to mitigate the risk of non-payment or stranded assets, helping ensure that the cost of service is recovered and not shifted to other ratepayers.

Q. What risks do large loads, including data centers, pose to utilities and other ratepayers?

A. Large loads, such as data centers, pose several potential risks related to system reliability, cost impacts, and regulatory compliance. Rapid and substantial load growth can strain

existing generation resources and create congestion on transmission and distribution networks. These pressures not only challenge the short-term reliability of the system but also complicate long-term resource and infrastructure planning.

From a financial standpoint, utilities may need to undertake significant capital investments in infrastructure upgrades, including new substations, transmission lines, and distribution enhancements, to accommodate such loads. Should the customer reduce operations unexpectedly or exit the service territory, these investments may become stranded assets. In such cases, the financial burden could shift to other ratepayers, especially if adequate financial security protections are not in place to mitigate the impact. The risk of non-payment or partial recovery of infrastructure costs also poses a liability for the utility and its broader customer base.

The accelerated growth in electricity demand associated with large load customers may challenge the utility's ability to procure or develop sufficient clean energy resources, implicating statutory or regulatory clean energy and emission reductions targets along with the utility's own voluntary objectives.

Q. What are the potential benefits of large load customers taking service in Consumers Energy's territory?

A. Large load customers, including data centers, manufacturing facilities, and emerging industries, provide substantial economic, operational, and strategic benefits to the utility and the broader community. Economically, they contribute to job creation, attract private investment, expand the tax base, and stimulate regional economic development. From a system reliability perspective, their presence may support and even accelerate necessary

utility investments in aging infrastructure, ultimately enhancing service quality for all customers.

Multi-year service commitments from large load customers enhance the utilization of both existing and new generation and transmission assets. These customers also contribute stable, long-term demand, which supports more efficient resource planning and system modernization efforts.

Financially, large loads can increase and stabilize utility revenues by expanding overall system usage. A higher total sales volume allows the utility to distribute fixed system costs across more kilowatt-hours, which may help reduce costs for other ratepayers.

From a policy and compliance standpoint, many large load customers are actively pursuing ambitious sustainability objectives. This creates opportunities for meaningful collaboration on clean energy procurement, energy efficiency initiatives, and innovative grid solutions. Furthermore, large, consistent loads may catalyze the deployment of emerging technologies, such as advanced geothermal or nuclear power, hydrogen-based fuels, and grid-scale energy storage as well as supporting a variety of grid-enhancing technologies. By serving as anchor customers or project sponsors, these entities can help advance alternative pathways to achieving the utility's clean energy and decarbonization goals especially if they are willing to take on more risk such as supporting first-of-a-kind technologies that is not appropriate for a utility to bear but could provide future benefits when those technologies are potentially de-risked.

Q. Do you support requiring financial security from large load customers?

A. I support requiring financial security from large load customers as a means of protecting utilities and their ratepayers from potential financial risks, including stranded assets,

project delays, and customer default. Large load projects often require substantial infrastructure investment. If such projects are canceled, delayed, or significantly reduced, the resulting sunk costs may ultimately be shifted to other ratepayers. Financial assurances such as collateral, guarantees, or prepayments work in tandem with others rate payer protections such as capacity reduction penalties and exit fees. These mechanisms collectively ensure that customers assume appropriate responsibility for the risks they introduce and that the utility can recover its costs.

Q. At a high level, how should the utility approach the design of financial security requirements for large load customers?

A. Financial security requirements should be proportionate to the specific risks associated with each project. Many large load customers are backed by financially stable sponsors and supported by long-term commercial commitments. A rigid and uniform approach may unintentionally deter low-risk, high-value projects. A more effective strategy involves structuring requirements to evolve over time, beginning with a collateral ramp reflective of utility investments, full collateral held during any ramp period and the reduction of collateral once at full contracted capacity as the risk to both the utility and rate payers diminishes over the contract term. This staged approach appropriately reflects the risk profile from the utility's perspective.

Offering a range of credit tools, such as milestone-based collateral structures, surety bonds, guarantees, or upfront financial contributions, can provide necessary flexibility while maintaining financial discipline. Tailoring credit requirements to a project and customer-specific risk enhances transparency, reduces unnecessary capital constraints, and supports responsible growth. The goal is to strike a balance between protecting ratepayers

and enabling scalable, long-term development that delivers benefits to both the utility and the broader community.

In addition, flexibility in financial security frameworks can improve how customers perceive investment risk in the utility's service territory. While stricter requirements may appear to reduce risk, excessive collateral obligations can, in practice, deter investment. When combined with uncertain project timelines, these obligations can significantly increase carrying costs for customers. This may lead to otherwise viable projects being abandoned or removed from interconnection queues, which in turn increases the risk of stranded assets and undermines the very protections the financial requirements aim to ensure.

Q. Should financial security requirements apply only to data centers?

A. No. Limiting financial security requirements to data centers while exempting other large load customers is both inequitable and unjustified. All large loads, whether from new or existing customers, including manufacturing facilities and other high-demand users, can pose similar financial and operational risks to utilities. These risks include project cancellations, delays, underperformance, or abrupt departures, any of which can result in stranded costs or unrecovered infrastructure investments.

Imposing stricter financial requirements solely on data centers unfairly targets a sector that often includes financially stable entities with strong institutional backing, consistent high load factors, and long-term service commitments. At the same time, other large customers with comparable or even greater risk profiles may not be held to the same standards.

It is also important to evaluate the risk characteristics of individual data centers rather than generalizing across the entire industry. The data center sector is diverse, encompassing a range of business models such as hyperscalers, colocation providers, and enterprise-owned facilities. It also includes widely varying financial and ownership structures. For this reason, a uniform approach to financial security is not appropriate. Instead, policies should be structured based on measurable risk factors and applied consistently across all large load customers, regardless of industry classification.

A risk-based framework should consider project maturity, customer financial strength, and the scale of potential exposure. Applying consistent criteria in this way promotes fairness, protects ratepayers, and upholds transparency and nondiscriminatory utility practices. This also ensures that the financial security practices determined today can apply to the next innovative type of large load customers.

Section II: Financial security proposals by party

Q. Provide an overview of each party's views on Consumers Energy's financial security proposal and any recommended changes.

A. Table 1 summarizes the recommendations and positions of all parties regarding Consumers Energy's financial security proposal.

Table 1: Parties Positions on Credit and Collateral

Party	Collateral Requirement	Creditworthiness Criteria
Consumers Energy (L. Connolly)[1]	Up to 100% of projected cost to serve over 15-year contract term; additional financial security at discretion.	Exemptions for investment-grade credit and high liquidity, but not embedded in tariff.
MPSC Staff (D. Isakson)[2]	Acknowledges the need for financial security to protect other ratepayers from risks tied to large data centers. Supports clear tariff language enabling Consumers to require financial protections, including collateral.	Recommends formalizing the evaluation process and requiring Consumers to outline credit standards in the tariff to avoid arbitrary application and ensure transparency.
Attorney General (M. Deupree)[3]	Supports financial security; criticizes vagueness; seeks codified credit standards and oversight.	Wants formal tariff language defining credit standards; partial/full exemptions based on credit rating and liquidity.

Q. What is your understanding of Consumers Energy's financial security proposal?

A. Consumers Energy proposes the authority to require data center customers to provide collateral equal to up to 100 percent of the projected cost of service over a 15-year contract term if not deemed creditworthy. Customers with credit rating of A- from S&P and A3 from Moody's and liquidity greater than 10 times the collateral requirement will be exempt from collateral. Customers that do not possess that credit rating but have liquidity greater than 10 times the collateral requirement would be exempt from 50% of the requirement not exceeding $250 million. The proposal would also allow Consumers to impose additional financial security requirements at its discretion.

[1] Connolly Direct at 7 (collateral); Draft Data Center Contract at Jester Direct, Exhibit MEC-2 at 3; and Deupree Direct at 16 (discussing including specifics of collateral requirements as part of the tariff) (credit).
[2] Isakson Direct at 9–10 (collateral) and 11-12 (credit).
[3] Deupree Direct at 17-18 (collateral) and 20-22 (credit).

Q. What is your position on Consumers Energy's proposal?

A. Consumers Energy's proposal to require up to 100 percent financial security is disproportionate to the actual risk presented by most large load projects. When combined with other safeguards such as exit fees, minimum billing demand provisions, and long-term contracts, such a high collateral requirement creates an unnecessary barrier that could discourage investment and delay beneficial projects.

Many of the customers anticipated to take service under the tariff at issue are likely to have investment-grade credit and stable, long-term commitments. For these customers, imposing blanket, high collateral requirements are not warranted. Instead, I support flexible collateral structures that are calibrated to the specific risk profile of each customer. These structures should operate within a clearly defined framework based on industry best practices, which I discuss later in my testimony. This approach ensures both ratepayer protection and the promotion of sustainable load growth.

Q. Are you opposed to Consumers Energy's proposal to address financial security through individual agreements with customers?

A. No, I am not opposed. I view bilateral negotiations and a defined collateral framework as complementary tools that serve the same overall purpose: protecting ratepayers while enabling responsible load growth. Bilateral agreements provide the flexibility to tailor solutions to the specific financial conditions of large load customers. At the same time, a well-designed, standardized framework can offer consistency and transparency where individual negotiations are not feasible. However, Consumers' proposal does not appropriately balance risk management with the goal of encouraging long-term, sustainable load growth. A rigid, high-collateral model may discourage projects that could

improve load factors, enhance fixed-cost recovery, and support grid investments. A proportionate, risk-based framework is needed to safeguard ratepayers while enabling growth that strengthens system performance and long-term affordability.

Q. Provide more detail on Staff's financial security proposal.

A. Staff proposes that the required collateral would equal the exit fee, defined as 80 percent of the customer's contracted capacity multiplied by the number of months remaining in the contract. This amount would decrease annually to reflect the utility's declining financial exposure.

Customers could satisfy the requirement using approved instruments, including:

i) A parent or affiliate guarantee from an entity rated at least A- by S&P and A3 by Moody's, with liquidity ten times the required collateral

ii) A standby irrevocable letter of credit from a qualifying U.S. or U.S.-branch bank

iii) Cash posted in full

iv) Unrated customers may qualify for a 50 percent exemption, capped at $250 million, if they provide quarterly financials and certify liquidity of ten times the required amount.

Staff's proposal rejects Consumers Energy's broader discretionary authority to require collateral up to the full projected service cost.

Q. What is your position on Staff's proposal?

A. I do not support Staff's proposal. While its intent to protect ratepayers is sound, the collateral structure is excessive and misaligned with practical risk management. Requiring collateral equal to the full or half of the remaining exit fee imposes an unnecessary barrier for customers, particularly those with strong financial backing and long-term commitments.

A more appropriate approach would base collateral on a customer's monthly bill over a defined period. This method better reflects actual exposure and allows exemptions for creditworthy customers. The collateral should increase as the utility makes investments on the customers behalf to the date of energization and then should also be reduced annually following the ramp period, recognizing the declining risk to the utility and ratepayers.

If the Commission includes credit requirements in the tariff, they should be based on project-specific risk. The current proposal, even in its "compromise" form, still poses an unreasonable financial barrier and does not align with principles of fairness, risk calibration, or regulatory equity.

Q. What is the Attorney General's financial security proposal?

A. The Attorney General opposes granting the utility broad authority to impose collateral equal to the full cost of service. Instead, the proposal calls for specific tariff language to govern how collateral is calculated and to ensure that only customers posing significant risk are required to provide financial security.

The Attorney General supports Consumers' exemptions for customers with investment-grade credit ratings and sufficient liquidity, and allows a 50 percent exemption, capped at $250 million, for unrated customers that meet liquidity thresholds. These standards must be clearly stated in the tariff.

Q. What is your position on the Attorney General's proposal?

A. I do not support the Attorney General's proposal because it is overly prescriptive and does not provide adequate flexibility for Consumers Energy and large load customers to engage in bilateral negotiations regarding financial security requirements. Bilateral agreements are

an important tool that allow financial security obligations to be tailored based on the unique financial characteristics, risk profiles, and development stages of individual projects. This flexibility is critical to supporting long-term, sustainable load growth while ensuring that collateral requirements remain proportionate and do not create unnecessary barriers to investment.

However, I also recognize the importance of establishing a consistent framework that outlines guiding principles for determining financial security obligations. A well-defined framework can enhance transparency, promote fairness, and provide a predictable structure for both the utility and prospective customers. It helps ensure that ratepayers are protected and that financial risk is managed appropriately.

Importantly, I do not view a consistent framework and the ability to negotiate bilateral agreements as mutually exclusive. Rather, they can and should function together. A standardized framework can serve as a foundational reference that sets expectations and best practices, while still allowing for case-by-case adjustments through negotiation where circumstances warrant a more customized approach. This dual-path structure ensures that the utility is equipped to manage financial risk effectively while also encouraging economic development and grid-enhancing projects.

Section III: Financial security best practices

Q. Are there best practices for large load financial security?

A. Yes. E3 has identified best practices for managing financial security for large load customers, particularly where utilities face significant capital investment and risk of stranded costs. These practices aim to ensure cost recovery, support responsible load growth, and promote fair treatment of all customers.

A key principle is aligning financial security requirements with actual risk exposure. This involves using a phased or milestone-based structure in which collateral levels adjust based on the project's stage and the utility's financial commitment. Early-stage projects, which carry higher risk, should provide greater upfront security that can be reduced as the project advances through permitting, financing, construction, and operation.

Another best practice is offering a standardized set of acceptable collateral instruments. Utilities should accept various forms of security, such as surety bonds; guarantees from a parent, affiliate, tenant, or other entity with a financial interest in the customer; sponsor support agreements; and contributions in aid of construction. This flexibility accommodates different customer financial structures while maintaining utility protection.

Avoiding redundancy is also important. Utilities should not impose overlapping forms of security that address the same risk, such as combining contributions-in-aid-of-construction ("CIAC"), exit fees, and demand guarantees without clear justification. Credit frameworks should include evaluation tools, such as a credit efficiency index or "scorecard", to assess the adequacy of existing protections and calibrate requirements appropriately.

Transparency and consistency are essential. Utilities should define clear credit evaluation criteria, including liquidity thresholds, credit ratings, and exemption standards. Frameworks must also be scalable and adaptable to accommodate growing and evolving large load interconnection requests.

Together, these practices provide a disciplined and balanced approach that protects ratepayers, supports infrastructure investment, and ensures a fair and efficient interconnection process.

Q. Please provide more details on the milestone-based approach.

A. A milestone-based approach to financial security ties the level and type of collateral to key stages in the development of a large load project and the customer's lifecycle. Rather than imposing a fixed collateral requirement, this approach adjusts financial security obligations as the utility's exposure evolves over time.

Collateral requirements should begin when the utility starts making financial commitments on behalf of the customer and increase as those investments grow. At the customers' facility commercial operation date and throughout the load ramp period, full collateral should be held to incentivize customers to meet their ramp targets and to mitigate the risk of underutilized assets. Once the customer has fully ramped their load, collateral should be gradually reduced to reflect the declining risk to the utility and ratepayers. This reduction should continue month by month as the customer meets its contractual obligations, aligning financial security with actual performance and risk.

The milestone-based framework offers a transparent, scalable, and disciplined way to manage financial security. It balances ratepayer protection with flexibility for responsible, creditworthy customers and aligns financial obligations with both project risk and utility investment timing.

Q. Please expand on the standardized menu of acceptable collateral instruments.

A. A standardized menu of acceptable collateral instruments is essential to a transparent and effective financial security framework for large load customers. It provides clarity and

consistency by listing approved financial tools that customers may use to meet collateral obligations. This approach promotes fairness and allows customers to select instruments that align with their financial structure, while ensuring the utility remains protected.

Common instruments include letters of credit, guarantees, surety bonds, and cash deposits. Letters of credit must be issued by a U.S. bank or a U.S. branch of a foreign bank with a minimum credit rating, typically BBB- or higher from S&P and a Baa3 or higher from Moody's. These letters must meet requirements for term length and automatic renewal. Parent or affiliate guarantees must come from entities with sufficient credit quality and liquidity to support the obligation. Surety bonds, issued by qualified insurers, can be a cost-effective option. Cash collateral, though less flexible, offers strong security and is universally accepted.

Including these instruments, along with clear eligibility standards, ensures the utility's financial exposure is adequately managed without imposing excessive burdens on customers. The availability of multiple options supports a range of financial profiles and simplifies compliance and enforcement. This structure helps maintain equitable treatment, operational efficiency, and a balanced approach to risk management.

Q. Should there be collateral exemptions?

A. Yes. Collateral exemptions are appropriate because financial security requirements should reflect the actual risk posed by each customer. Applying uniform collateral across all large load customers can lead to overcollateralization and create unnecessary barriers, particularly for financially stable and low-risk entities.

Exemptions should be based on objective criteria as discussed in the previous answer. For example, a customer with an investment-grade rating and liquidity exceeding

ten times the required collateral should not be subject to the same obligations as a customer with speculative credit and low liquidity. Customers without formal ratings but with strong liquidity and financial transparency should also qualify for partial exemptions.

Establishing structured, risk-based exemptions allows utilities to maintain necessary protections while promoting fairness and investment. A balanced exemption framework ensures accountability, avoids unnecessary cost burdens, and protects ratepayers without discouraging viable large load development.

Q. What is your stance on collateral reduction?

A. Collateral reduction is an essential element of a sound financial security framework. As a large load project progresses and the utility recovers capital investments, financial risk declines. Collateral requirements should decrease accordingly, either over time or upon reaching performance milestones. For example, once a customer completes construction, begins commercial operation, and demonstrates payment reliability, the likelihood of default or early termination diminishes. A declining collateral schedule ensures alignment with actual risk and prevents unnecessary capital burdens on the customer.

This mechanism should be clearly outlined in the tariff or service agreement, with reductions triggered automatically by defined criteria such as contract term progression or ongoing compliance. Collateral reduction reflects prudent credit practice, enhances investment efficiency, and maintains protection for ratepayers.

Q. Do you recommend a certain form of collateral?

A. No. There is no single form of collateral suitable for all utilities or large load customers. Risk preferences vary by utility, and customer financial structures differ widely. A rigid, uniform approach is often impractical and may lead to unintended consequences.

Collateral options should include cash deposits, standby letters of credit from investment-grade institutions, surety bonds from qualified insurers, and guarantees from a parent, affiliate, tenant or other entity with a financial interest in the customer and supported by strong credit and liquidity. Each instrument carries distinct costs, risks, and administrative considerations.

Providing a standardized menu of approved collateral types allows utilities to manage risk effectively while giving customers flexibility to meet requirements in a manner consistent with their financial strategy. This approach encourages participation, streamlines project development, and upholds ratepayer protection through enforceable, risk-aligned instruments.

Q. Why are scalability and adaptability in credit frameworks important?

A. Scalability and adaptability are essential for managing the increasing number and diversity of large load customers, including data centers, electric vehicle charging hubs, hydrogen production facilities, and other emerging technologies. A scalable credit framework enables utilities to apply consistent processes across a wide range of project sizes and customer types. This promotes efficiency, reduces administrative burden, and supports fair and timely evaluation of interconnection requests.

Adaptability ensures that the credit framework remains responsive to changes in market conditions, regulatory objectives, and customer risk profiles. As new customer categories emerge or financial conditions evolve, utilities must have the ability to adjust credit thresholds, collateral requirements, and exemption criteria without overhauling the entire policy structure. This flexibility allows utilities to maintain a consistent approach while addressing unique risk characteristics in a practical and efficient manner.

Together, scalability and adaptability provide the foundation for a stable, transparent, and future-ready credit policy. They allow utilities to protect ratepayers from financial exposure while facilitating the reliable and equitable integration of large loads into the electric grid. Importantly, credit policies should not be limited to near-term concerns or tailored narrowly to one customer segment. Rather, they should be designed with a long-term, system-wide perspective that supports the anticipated growth and diversification of large load interconnections. A forward-looking framework that is both scalable and adaptable will enable utilities to manage emerging risks effectively while supporting innovation, investment, and sustained grid reliability.

Section IV: Recommendation to the Commission

Q. What credit and collateral requirements do other utilities in the region have for large load customers?

A. Table 2 summarizes the credit and collateral requirements of selected regional utilities for large load customers.

Table 2: Credit and Collateral Proposed or Approved Requirements of Regional Utilities

Attribute	Indiana Michigan Power	Evergy Kansas & Missouri	ComEd	Consumers Energy	Dominion Energy Virginia
Customer Type	Loads ≥70 MW or 150 MW aggregated	Large Commercial >100 MW	Large Commercial / Industrial	Data centers ≥100 MW	GS-5 customers ≥25 MW & ≥75% load factor
Collateral Requirement	24×max monthly bill	24×max monthly bill	Negotiated under PJM ESA	Negotiated; up to 100% of projected cost	$1.5M / MW
Credit Exemption / Reduction	Full waiver if credit & liquidity requirements met, partial waiver if only liquidity requirement met	50% or 40% waived if credit & liquidity requirements met	Waived / reduced under PJM standards	Waived / reduced with guarantees or rating	70% reduction if credit & liquidity requirements met
Forms of Collateral	LOC, guarantee, cash		Negotiated (LOC, guarantee, bond)	Negotiated (LOC, guarantee, bond)	LOC, surety bond, cash, parent guarantee

Q. What does Table 2 demonstrate?

A. Table 2 illustrates the varied approaches utilities use to manage credit and collateral requirements for large load customers. These practices differ based on each utility's size, risk tolerance, existing and prospective customer profile, and regulatory environment. This diversity confirms that no single standardized model is appropriate across all jurisdictions. Instead, it underscores the value of adopting best practices as a guiding framework. Such practices promote consistency, fairness, and transparency while allowing for flexibility based on local conditions. They provide a practical foundation for developing policies that effectively manage risk and support the integration of large loads into the electric grid.

Q. Based on the financial security best practices framework explained earlier, what are your recommendations on financial securities in this case?

A. Based on the established best practices, the recommended approach should balance ratepayer protection with proportionality, transparency, and administrative efficiency. While bilateral negotiation between Consumers Energy and large load customers is acceptable, if the Commission prefers a standardized framework, I recommend the following structure:

i) **Collateral Amount and Duration:** Customers should post collateral equal to two years of non-fuel revenue, beginning when Consumers makes capital investments to serve the customer, increasing at the same pace as Consumers makes investments, and reaching the full amount by the time the project is energized. This collateral should remain in place through the load ramp-up period.

This level of collateral provides sufficient "skin in the game" to demonstrate the customer's commitment to project development. Maintaining the collateral during the ramp period also serves as an incentive for the customer to achieve full load ramp, thereby minimizing the risk of cost shifts to other customers. While instances of customer default are rare, in such cases, two years of non-fuel revenue would be sufficient to cover the costs associated with underutilized assets until the capacity can be reassigned to a new customer and that customer becomes operational.

ii) **Ramp-Down Schedule**: After one year of operations at contracted capacity, collateral should be reduced by 10 percent annually, reaching zero by the end of the contract term. If the contract is extended, no new collateral should be required unless additional utility

investments are necessary. The 10 percent reduction annually mirrors the reduced risk to Consumers and ratepayers of stranded assets.

iii) **Credit Rating-Based Exemptions:** Customers whose guarantor has a credit rating of at least BBB (S&P) or Baa3 (Moody's), and liquidity of at least five times the collateral amount, should be eligible for a 50 percent exemption. These entities must certify their rating and liquidity annually.

Customers without formal ratings may qualify for a 30 percent exemption if their guarantor meets the same rating threshold, is not on a credit watch, and maintains five times liquidity, subject to the same annual certification.

iv) **Acceptable Forms of Collateral**: Customer should have the option of posting collateral in the form of a guarantee from a parent, affiliate, tenant or other entity with a financial interest in the customer; a letter of credit; a surety bond, or cash.

v) **Collateral in the form of Cash:** Collateral posted in cash should accrue interest while held by Consumers.

vi) **Use of Collateral Proceeds:** If Consumers draws on posted collateral, the proceeds should be used to offset costs for remaining ratepayers to ensure the financial security serves its intended purpose to offset costs for all ratepayers.

This structure protects ratepayers while avoiding excessive financial obligations for large customers. It ensures recovery of utility costs through a fair, risk-based mechanism that supports investment and operational equity.

Q. Provide an example of the difference in what a customer would pay under Consumers' proposal as compared to your recommendation.

A. Consider an illustrative data center customer with a contracted demand of 100 MW and a typical load factor of 85 percent. Under Consumers Energy's Large General Service Primary Demand Rate, an estimate of the customer's annual cost for electric service would be approximately $25.4 million.

Under Consumers' proposal, which requires collateral equal to 15 years of expected revenues, this customer would be obligated to provide over $380 million in collateral to the utility. Assuming Consumer's pre-tax weighted average costs of capital ("WACC") of 7.85 percent as the discount rate over the 15-year term, with equal monthly credits applied to the customer's account, the net present cost of this collateral commitment would be approximately $150 million.

By contrast, under a more proportionate and risk-aligned collateral framework, such as a requirement equal to 2 years of expected revenues, the same customer would provide $51 million in collateral. Using the same WACC and assuming the collateral is returned in equal monthly installments over a 10-year period, the net present cost to the customer would be approximately $24 million.

This example of collateral posted in cash form, held by the utility without accruing interest, underscores the significant financial burden imposed by the proposed collateral structure. This highlights the need for a more balanced and scalable approach to credit requirements. While cash collateral imposes an immediate and direct strain on a customer's liquidity, alternative forms of collateral—such as letters of credit or performance bonds—can provide equivalent financial security with significantly less impact on cash flow.

As shown in Table 3 below, excessive collateral obligations may deter investment by increasing the cost of capital and creating financial uncertainty. This risk is amplified if the utility does not meet interconnection timelines, as customers may be forced to carry collateral for extended periods, incurring substantial carrying costs. In some cases, this could result in project delays or abandonment.

A well-calibrated, risk-based collateral framework helps mitigate these risks by aligning financial requirements with the actual creditworthiness of the customer and the project's development stage. Such an approach protects ratepayers and preserves utility financial integrity, while also supporting investment in large load projects that can improve grid efficiency and long-term affordability.

Table 3: Collateral Cash Flow Illustrative Example

Period (Year)	**Cash Flow ($M)**		
	15-Yr Collateral & 15-Yr Recovery	**2-Yr Collateral & 10-Yr Recovery**	
0	$ (359)	$ (48)	*Upfront Collateral*
1	$ 23.9	$ 0	*Credit*
2	$ 23.9	$ 0	*Credit*
3	$ 23.9	$ 0	*Credit*
4	$ 23.9	$ 0	*Credit*
5	$ 23.9	$ 4.8	*Credit*
6	$ 23.9	$ 4.8	*Credit*
7	$ 23.9	$ 4.8	*Credit*
8	$ 23.9	$ 4.8	*Credit*
9	$ 23.9	$ 4.8	*Credit*
10	$ 23.9	$ 4.8	*Credit*
11	$ 23.9	$ 4.8	*Credit*
12	$ 23.9	$ 4.8	*Credit*
13	$ 23.9	$ 4.8	*Credit*
14	$ 23.9	$ 4.8	*Credit*
15	$ 23.9	N/A	*Credit*
	$ (152)	**$ (24)**	***Approximate NPV***

Part II: Clean Energy

Section I: Clean energy proposals by party

Q. What are the clean energy obligations relevant to electric utilities in the state of Michigan?

A. Michigan requires electric utilities to meet escalating clean energy targets under the Renewable Energy Standard ("RES") and Clean Energy Standard ("CES"), as established by Public Act 235 of 2023.

i) RES: Utilities must source at least 15 percent of electricity from renewable resources through 2029, increasing to 50 percent by 2030 and 60 percent by 2035. Eligible sources include wind, solar, hydroelectric, and certain biomass. Compliance is tracked through Renewable Energy Credits ("RECs"), with one REC equal to one megawatt-hour of renewable generation.

ii) CES: Utilities must achieve 80 percent clean energy by 2035 and 100 percent by 2040. Clean energy includes both renewable and non-emitting sources, such as nuclear power and natural gas with carbon capture.

These standards support the state's broader climate goals to reduce greenhouse gas emissions and advance sustainable energy development.

Q. Is clean or renewable energy important to data center customers?

A. Clean or renewable energy is important to some data center customers, particularly those with environmental, social, and governance (ESG) commitments or sustainability goals. However, it is not a universal priority. For many data centers, especially those focused on commercial deployment, the primary concern is time to market, i.e. securing reliable power quickly to begin operations.

While clean energy may factor into long-term strategy or branding, immediate power availability and scalability often take precedence. It remains important to support clean energy development and offer flexible participation options for large load customers. These may include on-site generation, third-party power purchase agreements, and access to green tariff programs. Such flexibility enables progress toward renewable goals while accommodating varying operational needs.

Q. Please summarize the clean energy requirement proposals by parties in this proceeding.

A. Table 4 provides a summary of each party's position on clean energy requirements for data center customers.

Table 4: Clean Energy Requirements Proposal by Party

Party	Clean Energy Procurement Requirement	Minimum % Renewable	Mechanism Proposed
Attorney General (M. Deupree)[4]	Require data centers to contract for renewable energy to meet PA 235 obligations and tax exemption requirements	≥60% from renewables	Contractual mandate for 60% renewable energy (within MISO Zone 7) + support for 90% clean energy for tax exemptions
Clean Energy[5] **Organizations (S. Siddique)**	Require data centers to participate in clean energy programs via CESPs and VGPs	60% by 2035	Voluntary Green Pricing (VGP), customer CESPs, prioritization of low-grid-impact projects
MEIU (J. Albers)[6]	Offer flexible clean energy sourcing options through utility and third-party solutions	Not specified	Competitive RFPs, behind-the-meter resources, demand flexibility, grid-enhancing tech, and 50/50 utility vs. 3rd-party ownership
MNSC[7] **(D. Jester)**	Require data centers to meet 90% clean energy for tax exemption requirements and 60% renewables through bespoke portfolios tied to long-term contracts	90% clean energy; 60% renewable	Voluntary Green Pricing, long-term clean energy contracts, on-site generation; bespoke clean resource portfolios per customer

Q. What is the Attorney General's clean energy proposal?

A. The Attorney General recommends incorporating firm clean energy requirements into Consumers Energy's proposed tariff for large-load data centers under Rate GPD. The proposal includes a requirement for data center customers to procure at least 60 percent of

[4] Deupree Direct at 12-13.
[5] Siddique Direct at 13-14.
[6] Albers Direct at 14-17.
[7] Jester Direct at 10-11, 14-15, 18, 21-22.

their incremental energy use from renewable sources located within MISO Zone 7, in alignment with Michigan's Renewable Energy Standard target of 60 percent by 2035.

Additionally, to qualify for sales and use tax exemptions under MCL 205.54ee, data center customers would be required to demonstrate compliance with the statute's 90 percent clean energy threshold. These provisions are intended to ensure compliance with state law and avoid cost-shifting by requiring customers to procure renewable energy directly for their load.

Q. What is your position on the Attorney General's proposal?

A. The requirement that data center customers meet the 90 percent clean energy threshold to qualify for tax exemptions under MCL 205.54ee is reasonable and appears to be consistent with state law. Regarding the proposed 60 percent renewable energy target, achieving this goal may be feasible provided there are no constraints related to time to market. However, prior to committing large-load customers to this accelerated target, it would be prudent to obtain further clarity on the implementation framework, associated timelines, and operational implications. A comprehensive understanding of these factors is essential to ensure informed decision-making and to avoid unintended impacts on market dynamics and project viability.

Q. What is the Clean Energy Organizations' clean energy proposal?

A. The Clean Energy Organizations propose a clean energy framework to ensure that large data center customers comply with statutory requirements while limiting cost impacts on other utility customers. They recommend that data centers seeking sales and use tax exemptions under Public Acts 207 and 181 of 2024 be required to procure at least 90 percent of their electricity from clean energy sources, as defined in Section 51 of the Clean

and Renewable Energy and Energy Waste Reduction Act. Additionally, they propose that all new data center load be served by a portfolio that includes at least 60 percent renewable energy. To meet these targets, they suggest Consumers Energy offer options such as voluntary green pricing, long-term power purchase agreements, and on-site renewable generation, tailored to each data center's load profile.

Q. What is your position on the Clean Energy Organizations' proposal?

A. My position is consistent with my view on the Attorney General's proposal. I support the requirement that data center customers meet the 90 percent clean energy threshold to qualify for sales and use tax exemptions, as it is a reasonable standard and appears to be consistent with state law.

With respect to the proposed 60 percent renewable energy procurement requirement, achieving this target could be feasible if there are no constraints on time to market. However, it would be premature to impose this standard on data center customers without first obtaining greater clarity on how the requirement would be implemented, enforced, and integrated into existing planning and procurement processes.

Q. What is the MEIU's clean energy proposal?

A. MEIU proposes a clean energy framework that emphasizes customer flexibility, innovation, and market-based procurement. Instead of imposing fixed renewable energy procurement requirements, MEIU recommends offering data center customers a range of clean energy options. These include behind-the-meter solutions such as on-site solar and battery storage, participation in demand-side flexibility programs, and deployment of grid-enhancing technologies.

MEIU also proposes allowing customers to reduce their effective contract capacity, which determines minimum demand charges, if they commit to serving part of their load through on-site resources. In addition, customers should be permitted to enter into third-party power purchase agreements ("PPAs") without being required to participate in Consumers Energy's Voluntary Green Pricing ("VGP") program.

To meet any remaining capacity needs, MEIU recommends that Consumers Energy conduct competitive all-source requests for proposals ("RFPs"), evaluated by an independent administrator to ensure fairness and transparency. Customers would also have the option to pay a premium to prioritize certain resource types, such as solar or storage, in Consumers' resource planning.

Q. What is your position on MEIU's proposal?

A. I support MEIU's clean energy proposal. Allowing customers to reduce their effective contract capacity in exchange for deploying on-site resources promotes flexibility and recognizes distributed energy investments. The recommendation to permit third-party PPAs outside of the VGP program enhances market access and customer choice.

Requiring Consumers Energy to issue competitive, independently evaluated all-source RFPs for unmet needs improves transparency and cost control. Providing customers the option to pay a premium for prioritizing specific resource types further supports alignment between sustainability goals and utility planning. Overall, MEIU's proposal offers a balanced and practical framework for advancing clean energy while maintaining customer choice and protecting ratepayers.

Q. What is the MNSC' clean energy proposal?

A. MNSC's proposal is similar to the Attorney General's proposal which includes a requirement for data center customers to procure at least 60 percent of their incremental energy use from renewable sources and a requirement to demonstrate compliance with the statute's 90 percent clean energy threshold for sales and use tax exemptions.

Q. What is your position on the MNSC's proposal?

A. As stated previously, the requirement that data center customers meet the 90 percent clean energy threshold to qualify for tax exemptions under MCL 205.54ee is reasonable and appears to be consistent with state law. Regarding the proposed 60 percent renewable energy target, achieving this goal may be feasible provided there are no constraints related to time to market. However, prior to committing large-load customers to this accelerated target, it would be prudent to obtain further clarity on the implementation framework, associated timelines, and operational implications. A comprehensive understanding of these factors is essential to ensure informed decision-making and to avoid unintended impacts on market dynamics and project viability.

Section II: Recommendation to the Commission

Q. What is your clean energy recommendation to the Commission?

A. I recommend that the Commission adopt a balanced and pragmatic approach that incorporates the most reasonable and flexible elements from the proposals submitted by various stakeholders. Specifically, I support policies that allow data center customers to reduce their effective contract capacity through investments in on-site renewable generation. I also support enabling third-party PPAs outside of the VGP program, requiring competitive all-source RFPs evaluated by an independent administrator, and providing

customers the option to pay a premium to prioritize specific renewable resource types. These mechanisms, as proposed by MEIU, offer essential flexibility and are well aligned with the operational and procurement needs of large-load customers.

With respect to the proposed 60 percent renewable energy procurement requirement, I am not in a position to fully support its adoption at this time. While the target may be technically achievable and consistent with the clean energy goals of many large-load customers, there is currently insufficient clarity regarding how such a requirement would impact project development timelines. Time to market is a primary concern for data centers. If not carefully structured, accelerated renewable mandates could introduce delays, uncertainty, or additional barriers that are incompatible with the rapid deployment schedules typical of data center development.

Accordingly, I recommend that the Commission direct Consumers Energy to conduct further analysis and engage with stakeholders to evaluate the feasibility, implementation pathways, and timing of such a target. The results of this process should be reviewed by the Commission at a later date before any binding commitments are established.

Finally, any clean energy requirements or associated cost allocation mechanisms adopted by the Commission should be applied equitably across all large-load customers. A consistent, technology-neutral policy framework is essential to ensure regulatory fairness, encourage continued investment, and support Michigan's broader transition to a clean energy economy.

Q. Does this conclude your testimony?

A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the Application of Consumers Energy Company for *Ex Parte* Approval of Certain Amendments to Rate GPD	))))	Case No. U-21859

PROOF OF SERVICE

On August 4, 2025, an electronic copy of the foregoing was served on the following via email:

Name/Party	**Email Address**
ABATE Michael J. Pattwell Stephen A. Campbell Jessica York James R. Dauphinais Benjamin J. Holwerda	 mpattwell@clarkhill.com scampbell@clarkhill.com jyork@consultbai.com jdauphinais@consultbai.com bholwerda@clarkhill.com
Consumers Energy Bret A. Totoraitis Anne M. Uitvlugt Kelly M. Hall	mpsc.filings@cmsenergy.com Bret.totoraitis@cmsenergy.com Anne.uitvlugt@cmsenergy.com Kelly.hall@cmsenergy.com
Data Center Coalition Michael G. Oliva Nikhil Vijaykar Justin Bieber Shana Ramirez Lucas Fykes Travis Murray	 moliva@fosterswift.com nvijaykar@keyesfox.com jbieber@energystrat.com shana.ramirez@ethree.com lucas@datacentercoalition.org tmurray@keyesfox.com
Ecology Center, Environmental Law & Policy Center, Union of Concerned Scientists, and Vote Solar Daniel Abrams Alondra Estrada Katie Toolen	 mpscdocket@elpc.org dabrams@elpc.org aestrada@elpc.org ktoolan@elpc.org
Michigan Attorney General Michael Moody Lucas Wollenzien Michael Deupree	ag-enra-spec-lit@michigan.gov MoodyM2@michigan.gov WollenzienL@michigan.gov michaeldeupree@acadianconsulting.com

MPSC Staff David W. Isakson Lori Mayabb Amit T. Singh Adam M. Cozort	 isaksond@michigan.gov mayabbl@michigan.gov singha9@michigan.gov cozorta1@michigan.gov
Microsoft Corp. Jennifer U. Heston	 jheston@fraserlawfirm.com
Michigan Environmental Council/Natural Resources Defense Council/Sierra Club/Citizens Utility Board of Michigan Christopher M. Bzdok Tracy Jane Andrews Breanna Thomas Natasha Fowles Jacob Elkin Shannon Fisk	 chris@tropospherelegal.com tjandrews@tropospherelegal.com breanna@tropospherelegal.com natasha@tropospherelegal.com jelkin@earthjustice.org sfisk@earthjustice.org
Switch, LTD Valerie J.M. Brader	ecf@rivenoaklaw.com valerie@rivenoaklaw.com
Michigan Energy Innovation Business Council/Institute for Energy Innovation/Advanced Energy United Justin K. Ooms Laura A. Chappelle Timothy J. Lundgren Lydia Lubbers	 jkooms@varnumlaw.com lachappelle@varnumlaw.com tjlundgren@varnumlaw.com lmlubbers@varnumlaw.com
Administrative Law Judge Hon. Katherine E. Talbot	talbotk@michigan.gov

The statements above are true to the best of my knowledge, information and belief.

/s/ Nikhil Vijaykar

Nikhil Vijaykar
Keyes & Fox LLP
580 California Street, 12th Floor
San Francisco, CA 94104
Tel.: 408-628-3256
E-mail: nvijaykar@keyesfox.com

Dated: August 4, 2025