STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Commonwealth Edison Company	)	
	)	
Petition for the Establishment of Performance	)	Docket No. 22-0067
Metrics Under Section 16-108.18(e)	)	
of the Public Utilities Act	)	

REBUTTAL TESTIMONY OF ANDREW BARBEAU, PRESIDENT, THE ACCELERATE GROUP ON BEHALF OF THE CITIZENS UTILITY BOARD AND THE ENVIRONMENTAL DEFENSE FUND

CUB/EDF Exhibit 4.0

June 3, 2022

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I. Introduction

Q. What is your name and business address?

A. My name is Andrew Barbeau. My business address is 3120 North Orchard Street, Chicago, Illinois 60657.

Q. What is the purpose of your testimony?

A. I am providing rebuttal testimony on behalf of CUB and EDF. My Rebuttal Testimony provides a response to the rebuttal metrics proposal of Commonwealth Edison Company ("ComEd" or the "Company"), describes changes to the alternative Performance Metrics Plan original proposed in my Direct Testimony, and makes final recommendations in this proceeding.

Q. Are you the same Andrew Barbeau who presented Direct Testimony in this docket?

A. Yes.

Q. Are there any attachments to your Rebuttal testimony?

A. Attached to my Rebuttal Testimony are:

- CUB/EDF Ex. 4.1 – revised alternative Performance Metrics Plan
- CUB/EDF Ex. 4.2 – EDF/CUB Response to JH-CUB/EDF 2.01 Part B Attachment

Q. Please summarize your analysis and conclusions regarding ComEd's proposed suite of metrics and alternative proposals presented by intervenors.

A. I reviewed ComEd's Rebuttal Testimony, including their rebuttal metrics proposal, and find that the performance metrics proposed by ComEd continue to be insufficient. I

provide rebuttal testimony here on each ComEd metric, explaining the deficiency of the proposed metric and the advantages of alternative approaches.

Further, I have assessed ComEd's criticisms of the alternative Performance Metrics Plan I sponsored in my direct testimony, and found them to be lacking in substance, evidence, or persuasiveness. I provide detailed rebuttal testimony, with evidence, in response to their criticism.

I also assessed testimony and revisions offered by ComEd, Staff and other intervening parties, including Natural Resources Defense Council ("NRDC"), the Joint Solar Parties, the Office of the Attorney General, Vote Solar, Environmental Law & Policy Center ("ELPC"), and Community Organizing and Family Issues ("COFI"). In response, I have revised certain of my metrics proposal, attached as my revised alternative Performance Metrics Plan (CUB/EDF Exhibit 4.1).

Finally, I offer recommendations on the inclusion of additional tracking metrics that were proposed by ComEd on rebuttal.

I recommend the Commission adopt the revised alternative Performance Metrics Plan as provided in Exhibit 4.1 of this Rebuttal Testimony, which includes revisions to the Reliability and Resiliency in Vulnerable Communities metric, further details and descriptions for multiple metrics, the inclusion of the Affordability metric adopted from COFI's proposal, and the inclusion of the Distributed Energy Resources ("DER") metric adopted from the joint proposal from the Joint Solar Parties and ELPC/Vote Solar. Additionally, I recommend the inclusion of certain tracking metrics proposed by ComEd as supplemental to the tracking metrics included in the alternative Performance Metrics

Plan, with stated conditions. Finally, I recommend the Commission reject the performance metrics proposed by ComEd.

II. Review of ComEd's Rebuttal Performance Metrics Plan

Q. Did you review ComEd's Rebuttal Performance Metrics Plan and its Rebuttal Testimony?

A. Yes. I reviewed the Revised Performance Metrics Plan included as ComEd Exhibit 4.01, as well as the Rebuttal Testimony submitted by ComEd witnesses Newhouse (4.0), Arns (5.0), Kirchman (6.0), Chu (8.0), Gabel (9.0), Menard (10.0), and Zarumba (11.0)

Q. What changes did ComEd make to its proposal?

A. ComEd proposed several adjustments to its metrics in response to proposals from Staff and Intervenors:

- Replacing its original Performance Metric 2 (Customers Exceeding Minimum Service Levels of Reliability or Resiliency) with a new performance metric measuring SAIDI in Environmental Justice ("EJ") and Restore, Reinvest, Renew ("R3") Communities;
- Modifying its original Performance Metric 3 (System Visibility Index)
- Adjusting its Performance Metric 4 (Load Reduction Capability) performance measures to exclude energy efficiency and voluntary load reduction;
- Increasing the Performance Metric 5 (Supplier Diversity) target from a 1% increase to a 3% increase;

- Changing the weighting in its Performance Metric 7 (Interconnection Timeliness) to equally weight interconnection levels, increase annual targets, and adjust incentives and penalties;
- Reducing the time period for Performance Metric 8 (Customer Service) from ten year to four years.

Q. Were the changes significant enough to overcome their deficiencies?

A. No, the changes ComEd made in its rebuttal metrics proposal were insufficient to overcome the deficiencies I previously identified in my Direct Testimony. While the change in Metric 2 to focus on EJ and R3 communities is welcome, it is not clear it sufficiently controls for differences in geography. Similarly, ComEd's changes to their proposed DER metric, focused on interconnection timeliness, makes welcome changes to focus more equally on interconnection timelines across all four levels of interconnection review, but the metric still is missing other elements of the statutory category that would make it more complete. On a positive note, ComEd's Affordability metric, which largely attempts to adopt COFI's recommended approach to the metric category, is a welcome change, and is close to being an acceptable metric.

Q. Why is ComEd's reliability metric proposal insufficient?

A. ComEd's reliability metric proposal continues to focus only on system-wide reliability, though it has added a measurement for system-wide EJ and R3 community metrics. As stated in my Direct Testimony, the Energy Infrastructure Modernization Act ("EIMA") already focused on system-wide reliability improvement. While the General Assembly did not find that any specific EIMA spending or performance metrics were unreasonable,

they did specifically call out that "it is important to address concerns that these measures may have resulted in excess utility spending and guaranteed profits without meaningful improvements in customer experience, rate affordability, or equity."[1]

The Commission must prioritize methods to ensure investments are made where they can address the statutory objectives most directly, which explicitly focus on meeting the needs of EIECs. Doing so means that general, system-wide average improvements that are community-agnostic are no longer sufficient for utility regulation.

Further, ComEd's proposed metric in the reliability category does not account for geographic differences across its service territory or account for customer needs when assessing the relative reliability of EIECs. My review of outage data provided by ComEd in discovery has shown that more urban areas, with their topography, geographic location, higher population and linemen workforce, and embedded infrastructure, are able to avoid more outages and restore outages more quickly. However, my review of more granular outage data, provided by ComEd in discovery, demonstrates significant differences between EIECs and non-EIECs when looking at similar geographic footprints (in my analysis and proposal, counties). The most accurate comparison is the measurement found in the Reliability and Resiliency in Vulnerable Communities metrics that is included in the alternative Performance Metrics Plan I sponsored in my Direct Testimony, with revisions found in this Rebuttal Testimony. That metric compared EIECs with non-EIECs while also controlling for geography.

ComEd's metric, by focusing on SAIDI, also fails to capture longer-duration events that have an exponential impact on vulnerable communities as time goes on, as

[1] 220 ILCS 5/16-108.18(a)(8)

support structures begin to fail after certain periods of time. Vulnerable communities have a limited ability to afford solutions to avoid or mitigate such outages. The inclusion of metrics such as CELID, which is included in the alternative Reliability and Resiliency in Vulnerable Communities metric, do measure such events. The alternative metric I propose also includes CEMI, which measures the number of customers experiencing multiple interruptions each year, another significant impact that is felt harder by vulnerable communities. ComEd included a partial approach to long-duration and high-frequency outage impacts in their original proposal, but replaced it with the metric focused on system-wide Equity Investment Eligible Communities ("EIECs"). That metric was not sufficient in identifying community needs. It required customers to have such outages in three consecutive years in order to be counted. However, the exclusion of the topic from the performance metric category was a move backwards. The Reliability and Resiliency in Vulnerable Communities metric continues to take the best approach to addressing the impact of outages based on community vulnerabilities. It focuses on a combination of improvements in the frequency and duration of outages in EIECs.

Q. Why is ComEd's peak load reduction metric proposal insufficient?

A. ComEd's proposal is not exactly clear about its design and intent. If my understanding of it is correct, the Company adjusted its proposal to count only actual peak load reductions, as verified by a third party, rather than peak load reduction capability that is not used. However, this is unclear, as they continue to refer to Peak Load Reduction Capability throughout their proposal. If my understanding is correct, then the shift to actual, verified peak load reductions is a welcome one and reduces the issues in dispute for the Commission's approval of performance metrics.

However, ComEd's proposed Peak Load Reduction metric continues to suffer serious flaws. First, the inclusion of distributed solar in the measured programs sets the proposed target well below what the utility can achieve without significant effort. Second, ComEd's proposed basis point reward structure is far too generous for a goal that is so easy for the Company to accomplish. Finally, the proposal fails to account for efforts to manage new peaks that will otherwise emerge due to new electric vehicle adoption and building electrification.

In my Direct Testimony and in the original alternative Performance Metrics Plan, and in its revised version, I documented how ComEd's peak load reduction target was too easy to reach. This stems from the amount of new distributed solar that will be coming on to the system in the wake of CEJA. The ComEd proposal completely ignores that significant ramp-up of rooftop and community solar incentives under CEJA, and the delays that led to the legislative fix, and takes full credit for all the new solar that will come on to the system compared to 2017-2021 in its performance bonus. In my Direct Testimony, I documented how the IPA's current forecast for the Adjusted Block Program will result in an increase of 597 MW (PJM peak capacity value) of new distributed solar coming on the grid between 2021 and the first year of the performance metric plan. That increases to 1,158 MW (PJM peak capacity value) of new distributed solar coming on the grid between 2021 and the fourth year of the performance plan. In comparison, ComEd has proposed that they get a full 5 bps of reward if they realize just 448 MW (PJM peak capacity value) of peak load reduction from all sources by the first year of the performance metric plan, and 719 MW (PJM peak capacity value) of new peak load reduction by year 4 of the performance plan. This means that ComEd would be eligible

for a maximum performance bonus of 5 basis points for only getting 75% of the CEJA distributed solar goals on the grid by 2024, and 62% of the CEJA distributed solar goals on the grid by 2027, and doing exactly zero other peak load reduction efforts. That is not an appropriate incentive structure. An appropriate performance metrics structure should focus on ensuring that the utility is helping to meet the goals of the statute, while rewarding the utility for additional peak reductions achieved. That approach is most effectively implemented through the Peak Load Reduction metric in the alternative Performance Metrics Plan.

Second, as explained in my Direct Testimony, the performance bonus structure is far too generous for the amount of benefit provided to customers. Setting aside the completely inadequate goals described previously, the marginal benefit to the Company through basis point incentives far exceeds that value provided to customers for reaching and exceeding the goals. As explained in my Direct Testimony, the alternative Performance Metrics Plan structures the Peak Load Reduction metric around a shared savings construct. Under my proposed metric, the utility earns 20% of the projected PJM capacity market reduction benefit that its additional peak load reduction efforts were able to verifiably achieve. This ratio is at the higher end of contract structures long seen in the demand response industry. Based on the analysis performed and shared, that equates to approximately 1 basis point ("bps") per 150 MW of peak load reduction achieved. In contrast, ComEd proposes a structure whereby the incremental incentive value of exceeding their baseline is 1 bps per 10 MW of peak load reduction. Based on the calculations in the table below, that would mean that ComEd would be taking $818,460

in performance payments for every $274,307 in capacity reduction value provided to customers for its effort. That's 3 times the benefit.

Reference Capacity Price	$68.96
Forecast Pool Requirement	1.0898
Annual Capacity Value per 1 MW	$27,430.70
Annual Capacity Value per 10 MW	$274,307.02
Revenue impact of 1 bps	$818,460
Customer Capacity Value / Utility Bonus	2.984

The shared savings structure in the alternative Performance Metrics plan, which provides the utility a 20% share of the benefit achieved is by far the superior structure.

Finally, ComEd's proposal fails to identify and address efforts to mitigate the peak load impacts from new electric vehicle and building electrification efforts. The peak load reduction metric proposal in the alternative Performance Metrics Plan takes a balanced approach to addressing ways the utility can mitigate the peak impacts of new electric load. Rather than penalizing the utility for increased electricity usage that occurs because of electrification efforts or trends, the metric looks at whether the actual peak impacts of such new load is higher or lower than what it would be if the utility did nothing. By comparing actual peak impacts of new electrification load to projections, the Commission can evaluate and measure whether the various efforts contained in the Multi-Year Integrated Grid Plans, Beneficial Electrification Plans, and related efforts to increase grid flexibility and reduce peaks, are achieving actual benefits for customers.

As described in my Direct Testimony, the statute requires a much more substantial focus on peak demand reductions and demand response than what ComEd has

proposed. In addition to the requirements in the performance-based ratemaking section, CEJA has several explicit goals for the role of peak load reduction:

- The newly required Multi-Year Integrated Grid Plans ("Grid Plans") establish goals to reduce energy usage especially during times of greatest reliance on fossil fuels, and enhance customer engagement opportunities.[2] The statute further requires that Grid Plans "optimize utilization of electricity grid assets and resources to minimize total system costs," "reduce grid congestion," and "support the long-term growth of… demand response."[3]
- Further, Multi-Year Integrated Grid Plans are required to include a detailed analysis of flexible resources, and anticipated needs that can be met using flexible resources.[4]
- The new Beneficial Electrification Section includes direction for utilities to file Beneficial Electrification programs that include efforts to reduce increases to peak demand.[5]
- The new distributed generation rebates for energy storage systems require recipients to participate in one or more programs developed as part of the Multi-Year Integrated Grid Planning process that are designed to meet peak reduction and flexibility.[6]
- Section 16-135 of the Public Utilities Act describes the opportunity for energy storage systems to "reduce the use of fossil fuels for meeting demand during peak

[2] 220 ILCS 5/16-105.17(a)(2)
[3] 220 ILCS 5/16-105.17(d)
[4] 220 ILCS 5/16-105.17(f)(2)(J)(ii)
[5] 20 ILCS 627/45(a)
[6] 220 ILCS 5/16-107.6(c)(1) and 220 ILCS 5/16-107.6(c)(2)

load periods,"[7] and describes a framework for energy storage that includes benefits related to "lower peak power costs and reduced capacity costs" as well as other services.[8]

- The General Assembly established a goal of the Illinois Power Agency to implement renewable energy procurement and training programs to, among other things, reduce peak demand.[9]

Q. Why is ComEd's Supplier Diversity metric proposal insufficient?

A. ComEd's Supplier Diversity metric continues to leave out extensive parts of the statutory requirement, which can be understood from a plain reading of the statute:

> Supplier diversity expansion, including diverse contractor participation in professional services, subcontracting, and prime contracting opportunities, development of programs that address the barriers to access, aligning demographics of contractors to the demographics in the utility's service territory, establish long-term mentoring relationships that develop and remove barriers to access for diverse and underserved contractors. The utilities shall provide solutions, resources, and tools to address complex barriers of entry related to costly and time-intensive cyber security requirements, increasingly complex information technology requirements, insurance barriers, service provider sign-up process barriers, administrative process barriers, and other barriers that inhibit access to RFPs and contracts. For programs with contracts over $1,000,000, winning bidders must demonstrate a subcontractor development or mentoring relationship with at least one of their diverse subcontracting partners for a core component of the scope of the project. The mentoring time and cost shall be taken into account in the creation of RFP and shall include a structured and measured plan by the prime contractor to increase the capabilities of the subcontractor in their proposed scope. The metric shall include reporting on all supplier diversity programs by goals, program results, demographics and geography, with separate

[7] 220 ILCS 5/16-135(a)(1)(A)
[8] 220 ILCS 5/16-135(c)(1)(D)
[9] 20 ILCS 3855/1-5

> reporting by category of minority-owned, female-owned, veteran-owned, and disability-owned business enterprise metrics. The report shall include resources and expenses committed to the programs and conversion rates of new diverse utility contractors.[10]

In contrast, ComEd's proposal continues to not include any metric elements that relate to the extensive requirements around barrier reduction programs and mentoring programs. It simply proposes to report on the same supplier diversity percentages it has been reporting on for years. It is unacceptable and irresponsible to read the extensive list of goals around barrier reduction and mentorship in the statute and completely ignore them in the composition of a metric. ComEd did not provide any testimony or evidence in response to the barrier reduction and mentorship components in my proposed Supplier Diversity Expansion metric in the alternative Performance Metrics Plan. It further offered no justifiable explanation for the exclusion of the barrier reduction or mentorship elements of the metrics category in its own proposal, other than that there was no baseline for such efforts. While ComEd may have disagreed with the approach of my alternative Performance Metrics Plan, it cannot simply ignore these clear and specific statutory directives.

Even the continuation of the same supplier diversity reporting is insufficient. The General Assembly specifically found that measures under the Energy Infrastructure Modernization Act "have not been sufficiently transformative in urgently moving electric utilities toward the State's ambitious energy policy goals," including "creating quality jobs and economic opportunities, including wealth building, especially in economically

[10] 220 ILCS 5/16-108.18(e)(2)(A)(iii)

disadvantaged communities and communities of color."[11] The utilities' supplier diversity calculations rely extensively on women-owned and veteran-owned businesses, and minority-owned businesses make up a significantly smaller percentage of overall annual spend than their demographic representation in the state.

The more effective approach for the Commission to adopt would be the one included in the Supplier Diversity Expansion metric of the alternative Performance Metrics Plan. It takes a more comprehensive approach to meet the requirements of the statute. The Supplier Diversity Expansion metric has three indices that measure a utility's performance: specific targets for equity eligible contractors and equity eligible persons (a new and extensive focus of CEJA) instead of a broader classification, specific measurement for whether a utility has implemented barrier reduction programs, and a specific evaluation of whether the utility has successfully incorporated mentorship and subcontractor development into contracts over $1,000,000.

Q. Why is ComEd's Affordability metric proposal insufficient?

A. ComEd's proposed Affordability metric largely adopts the proposal by COFI witness Howat to target a 10% reduction in disconnections in the top 20 ZIP codes. The alternative Performance Metrics Plan largely adopts that approach as well, but provides a further directive that the utility must also take proactive steps to reduce disconnections, which efforts it must demonstrate, and is not allowed to achieve the metric simply by allowing arrearages to increase.

The statute describes several outcomes that could be covered for the affordability category:

[11] 220 ILCS 5/16-108.18(a)(4)

- Affordable customer delivery service costs
- Keeping bills… within a manageable portion of income
- Reduce disconnections for households in EIECs and EJCs
- Ensuring equitable disconnections, late fees, or arrearages

A metric that the Commission can approve for this metric category is one designed to achieve one or more of those outcomes. The Commission should approve the disconnections metric originally proposed by COFI witness Howat, as revised and included in the rebuttal alternative Performance Metrics Plan.

Q. Why is ComEd's Interconnection metric proposal insufficient?

A. While ComEd's proposal to measure responsiveness to all levels of interconnection is welcome, and its weighting of all levels equally is important, the metric proposed by ComEd in the Interconnection, DER integration, Rate Options, and Transparency category is limited only to interconnection timeliness, ignoring the four other areas of focus in the DER metric category.

Q. Is ComEd's proposal to measure all levels of interconnections appropriate?

A. Yes. A plain reading of the statute requires a more thorough evaluation of the utilities performance than a metric just focused on, for example, Level 1 interconnections. The interconnection item of the DER metric category in the statute contains the following language: "*the utility's timeliness to customer requests for interconnection in key milestone areas, such as: initial response, supplemental review, and system feasibility study;"*[12] The key milestone areas identified by the statute include:

[12] 220 ILCS 5/16-108.18(e)(2)(A)(v)

- initial response,
- supplemental review, and
- system feasibility study.

While Level 1 interconnection applications include an initial response timeline (7 days), they do not include "supplemental review" or a "system feasibility study." A Supplemental Review is only found in Level 2 interconnection requests (Part 466.100 (f)), and a feasibility study is only found in Level 4 interconnection requests (Part 466.120 (d-e)). Any metric, or part of a metric, that focuses on the interconnection portion of the DER metric category should include all levels in which the "key milestones" appear.

A proper metric in this category would be one that addresses all levels of interconnection review, such as the joint proposal of the JSP and ELPC/Vote Solar and adopted in this testimony.

Q. Do you agree with ComEd witness Gabel that this metric category requires all metrics to be related to timeliness?

A. No. While I do endorse inclusion of a new DER metric that includes a timeliness index as part of the whole, a plain reading of the statute demonstrates that ComEd is not limited to metrics solely around "timeliness." The statute requires the following:

> "(v) Metrics designed around the utility's timeliness to customer requests for interconnection in key milestone areas, such as: initial response, supplemental review, and system feasibility study; improved average service reliability index for those customers that have interconnected a distributed renewable energy generation device to the utility's distribution system and are lawfully taking service under an applicable tariff; offering a variety of affordable rate options, including demand response, time of use rates for delivery and supply, real-time pricing rates for supply; comprehensive and predictable net metering, and

maximizing the benefits of grid modernization and clean energy for ratepayers; and improving customer access to utility system information according to consumer demand and interest." (220 ILCS 5/16-108.18(e)(2)(A)(v))

As a non-attorney, I interpret the description's use of semi-colons as clearly referencing five different areas metrics can target. These metrics are designed around:

- the utility's timeliness to customer requests for interconnection in key milestone areas, such as: initial response, supplemental review, and system feasibility study;
- improved average service reliability index for those customers that have interconnected a distributed renewable energy generation device to the utility's distribution system and are lawfully taking service under an applicable tariff;
- offering a variety of affordable rate options, including demand response, time of use rates for delivery and supply, real-time pricing rates for supply;
- comprehensive and predictable net metering, and maximizing the benefits of grid modernization and clean energy for ratepayers;
- and improving customer access to utility system information according to consumer demand and interest.

In a plain reading of the statute, the use of the term "timeliness" is clearly only in relation to the subject of "customer requests for interconnection in key milestone areas…" The four other possible subject areas of the metric were completely ignored in ComEd witness Gabel's testimony.

A proper metric in this category would be one that addresses these explicit areas in a thorough manner, such as the joint proposal of the JSP and ELPC/Vote Solar and adopted in this testimony.

Q. Why is ComEd's Customer Service metric proposal insufficient?

A. In its Customer Service metric proposal, ComEd continues to focus on the call resolution rate averaged year-round, which misses the opportunity to refocus its efforts on the most vulnerable and on hardship events, as emphasized in CEJA. ComEd proposes to grow its first contact resolution performance from 86% in the baseline to 87.6% by 2027, and seeks more than $16 million in performance bonuses if they reach the maximum end of that performance structure.

The better approach is to measure customer service responsiveness during times of customer vulnerability and hardship, such as the proposed hardship events measured in the Customer Service Metric included in the alternative Performance Metric Plan: "emergency/trouble," "Service Disruption During Extreme Weather Events," "Low-Income Customer Arrearages," and "Disconnections." That metric further limits the total achievable basis point bonuses and penalties to 2.

Upon review of intervenor's testimony responding to the Company's proposed Customer Service metric, I noticed a significant lack of interest and enthusiasm for this metric category as a whole. Further, it was exceptionally difficult to gather data from the utility to develop a benefit assessment of customer service responsiveness. Even ComEd witnesses Zarumba and Shields could not identify quantitative benefits related to the customer service metric other than possible minutes of reductions on the phone by customers. That buttresses my belief, expressed in my Direct Testimony, that limiting this metric's performance bonuses and penalties to 2 basis points appropriately weights this metric's importance. After reviewing intervenor testimony and rebuttal, I would also support a reduction in the basis points for this metric category to 1 or even less than 1.

Q. Why is ComEd's System Visibility metric proposal insufficient?

A. ComEd's System Visibility metric continues to be misguided and should be rejected completely. As discussed in my Direct Testimony, a plain reading of CEJA requires that the Commission only approve performance metrics that measure outcomes.[13] Instead, ComEd proposed a metric to measure an activity – in this case, additional spending on certain types of distribution system equipment. ComEd already enjoys an incentive, in the form of a return on equity, for the expenditures it is seeking to further reward through a performance bonus. Introducing new metrics focused on spending and guaranteed profits, without any identification of an improvement in customer experience, rate affordability, or equity, would run counter to the statute. That unfortunately means I also disagree with Staff Witness Balogun's testimony in support of increasing the percentage of the system visible.

The installation of system visibility equipment is just one tool in the toolbox for a utility to reduce the actual outcome of outage frequency and duration, or to integrate distributed energy resources. There are many investment strategies to address those outcomes, including the use of distributed energy resources for enhanced reliability, and leveraging DER aggregators and other third parties to integrate distributed energy resources, and relying on fixed settings on customer-sited equipment for grid support or protection. Those comparisons and evaluations will most appropriately be made in the upcoming Multi-Year Integrated Grid Plan process and proceeding.

Further, this metric appears to create the opportunity for double-counting with other reliability metrics that the Commission may approve, which do measure the actual outcomes of improved reliability. If any improvements in reliability result from these

[13] 200 ILCS 5/16-108.18(e)(2)(D).

distribution system investments, those outcomes would appear in the quantification of the frequency and duration of outages. If distribution system investments are targeted to EIECs, any improvements in reliability attributable to those investments would appear in the equity indices included in the Reliability and Resiliency in Vulnerable Communities metric included in the alternative Performance Metrics Plan.

Q. What is your conclusion on ComEd's Rebuttal Performance Metrics Plan?

A. While ComEd made some progress in its revised metrics, specifically in recognizing the need for a focus on reliability in EIECs and shifting the affordability metric to disconnections instead of outreach, most of the proposed metrics and the plan as a whole fall short of what should be approved under CEJA. The statute calls for a significantly new approach to utility oversight, investments, performance, evaluation, and conduct, and the utility's proposed metrics fall well short of those objectives. Conversely, I recommend metrics the Commission could establish to provide the proper incentives and oversight to the utilities they regulate.

III. Response to ComEd Rebuttal Testimony on CUB/EDF alternative Performance Metrics Plan

Q. Did ComEd provide rebuttal testimony on the CUB/EDF alternative Performance Metrics Plan?

A. ComEd provided very little rebuttal testimony refuting, disputing, or disagreeing with the alternative Performance Metrics Plan I sponsored in my Direct Testimony.

Q. Can you please summarize their Rebuttal Testimony?

A. Again, there was very little testimony and no evidence provided to rebut or respond to the alternative Performance Metrics Plan. The limited testimony that was provided included short statements from witnesses on their various reactions to the plan.

- ComEd witness Arns argued that the Reliability and Resiliency in Vulnerable Communities metric is infeasible from an engineering standpoint because feeders and circuits that comprise the distribution grid cross county boundaries (Arns, p. 26).
- ComEd witness Kirchman testified that they agreed with multiple recommendations from my proposed Peak Load Reduction metric and updated their metric accordingly, but prefer one measurement (Kirchman, p. 17).
- ComEd witness White testified that they are unable to adopt the Supplier Diversity performance metric because they do not have historical data for the indices related to addressing barriers to access and mentoring.
- ComEd witness Menard testified that he agrees that hardship events involved very important contacts, but that hardship events are not practical for a first contact resolution metric because they will often not be resolved or completed on first contact (Menard, p. 10).

Q. Do you agree with their response?

A. No, except for when they agreed with me.

Q. Did ComEd present any evidence rebutting the Reliability and Resiliency in Vulnerable Communities metric?

A. No. ComEd witness' Arns justification for excluding county-level analysis – that feeders and circuits cross county boundaries – is presented without evidence and is in itself a red herring. ComEd witness Arns provided no mapping or documentation demonstrating that any, let alone a significant portion, of EIECs are served by circuits or feeders that cross county lines. Given the significant concentration of EIECs in the middle of the City of Chicago, far away from the borders of Cook County, it is hard to imagine this represents a significant portion of EIECs.

Further, even if circuits and feeders serving EIECs crossed county lines, it is irrelevant to whether an investment to improve reliability and resiliency would support EIECs. The metric measures the outcome of improved reliability and resiliency, not the level of investment by county, and there is nothing in the Reliability and Resiliency in Vulnerable Communities metric that would prohibit an investment in one county that creates benefits in another county.

The design of the Reliability and Resiliency in Vulnerable Communities metric focuses on helping to control for natural and historical differences in geography.

Q. Do you have evidence that demonstrates the need to track reliability and resiliency improvements in EIECs while controlling for geography?

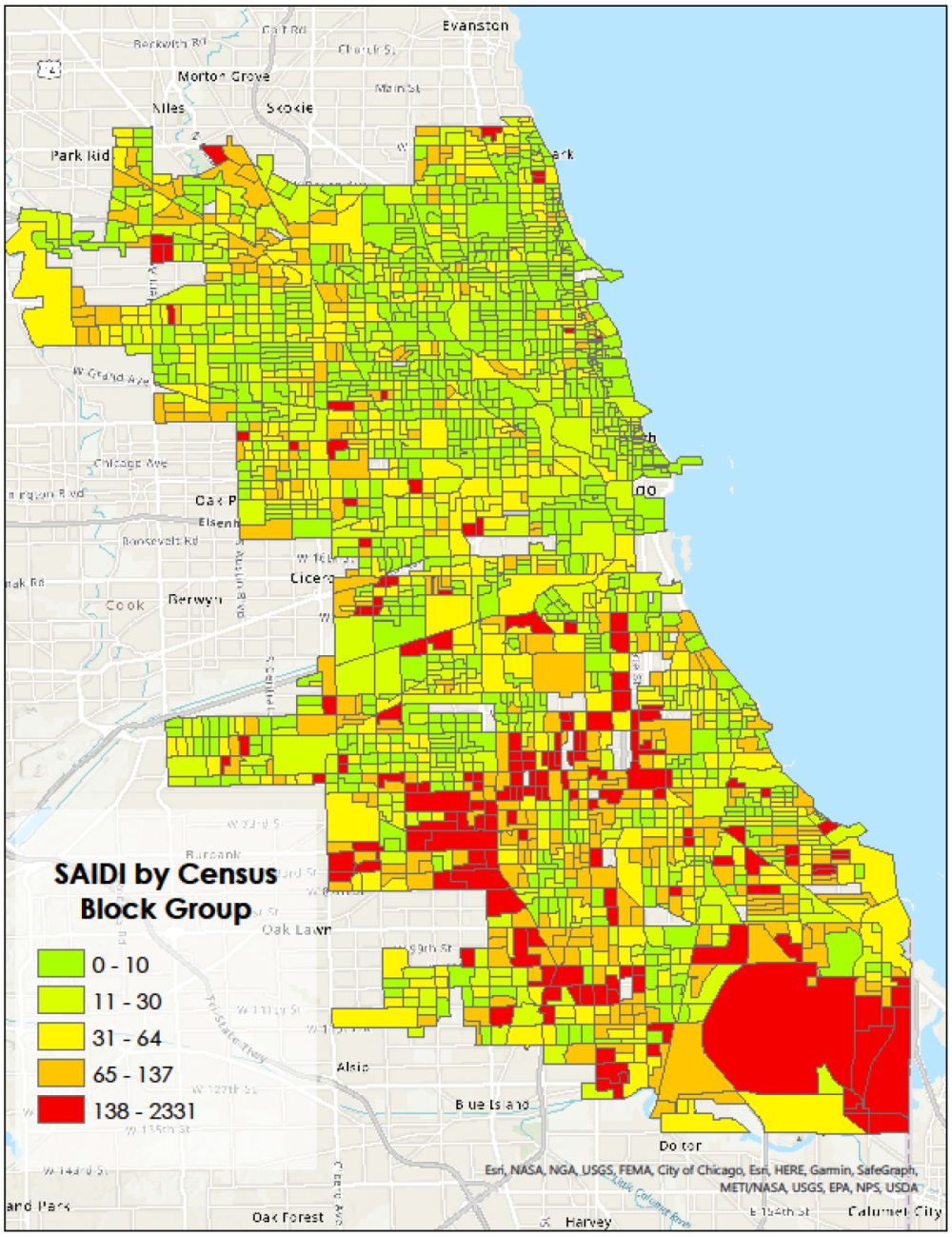
A. Yes. Controlling for geography is necessary to account for significant differences in weather impacts, topography, population distribution, and historical investments that can occur across a wide service area such as ComEd's. It is also necessary to account for the concentration of EIECs in denser and more urban areas in the service territory. It is more appropriate to compare the reliability of customers vs. their neighbors, and nearby communities and cities to determine whether their reliability is on par. If you don't

control for geography, you can get invalid results that correlate reliability performance more to broader regional dynamics rather than the utility's investments, programs, and practices in the performance years.

To look at this more closely, I examined reliability data for EIECs and non-EIECs within a large but relatively consistent geographic area to compare the impacts on customers versus their neighbors and other communities. In particular, I looked at the City of Chicago, which has a large percentage of the service territory's EIEC Census blocks, but also contains a significant population of non-EIECs. There is also nothing inherently different between these populations in the City of Chicago itself for the largest factors, such as weather and topography.

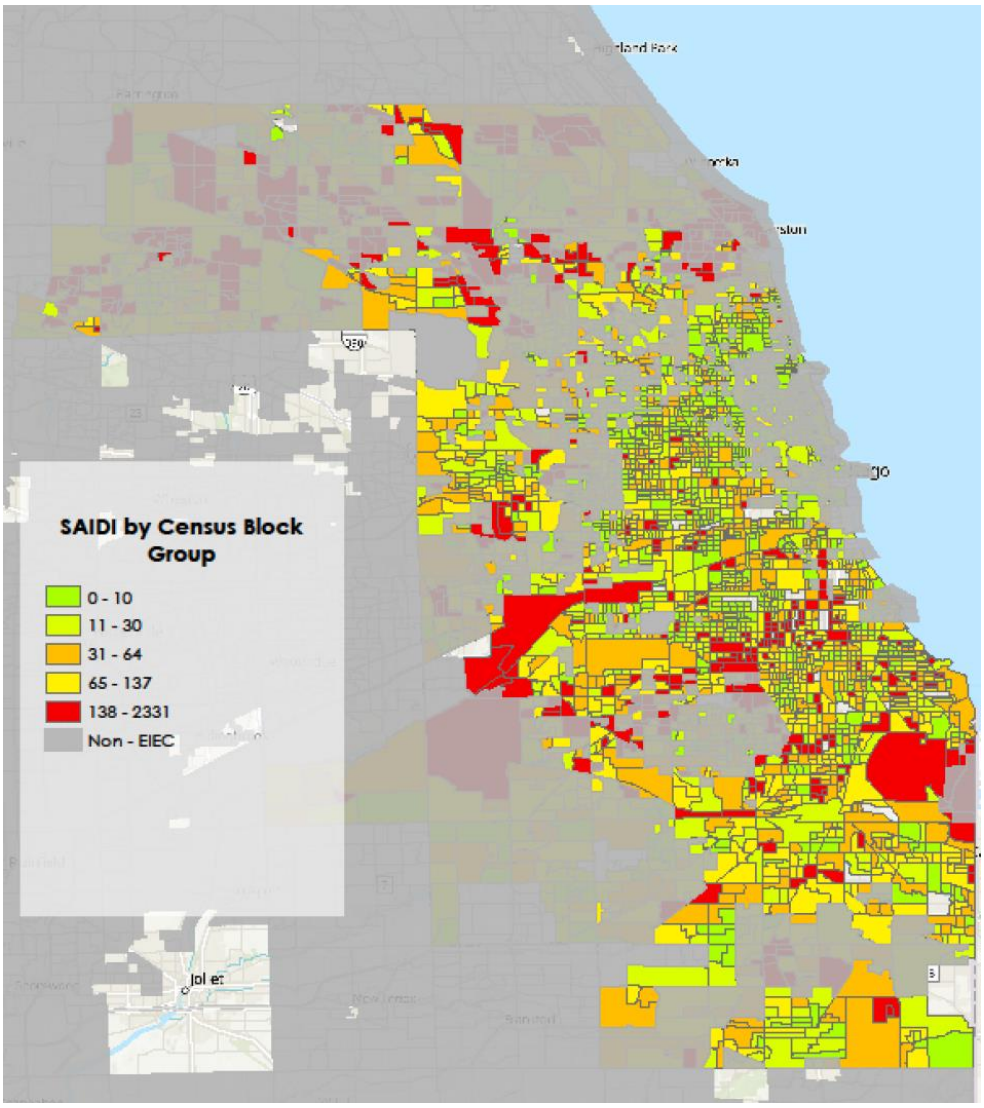
Through discovery, ComEd shared data on the SAIDI, SAIFI, CEMI, and CELID data for customers by Census block for 2021, allowing for an analysis overlaying EIEC boundaries with this reliability data. This type of data allows for the easy identification of reliability issues (in this case, SAIDI) in Equity Investment Eligible Communities, and allows for utility engineers to address performance through an equity and customer need-focused lens. This map was presented to the Commission's Integrated Grid Plan workshop on May 3 as well.

A very simple review of the map shows that Census blocks in Red, Yellow, and Orange all exceed the desired SAIDI levels, where green Census blocks are not experiencing the same disruptions.



497

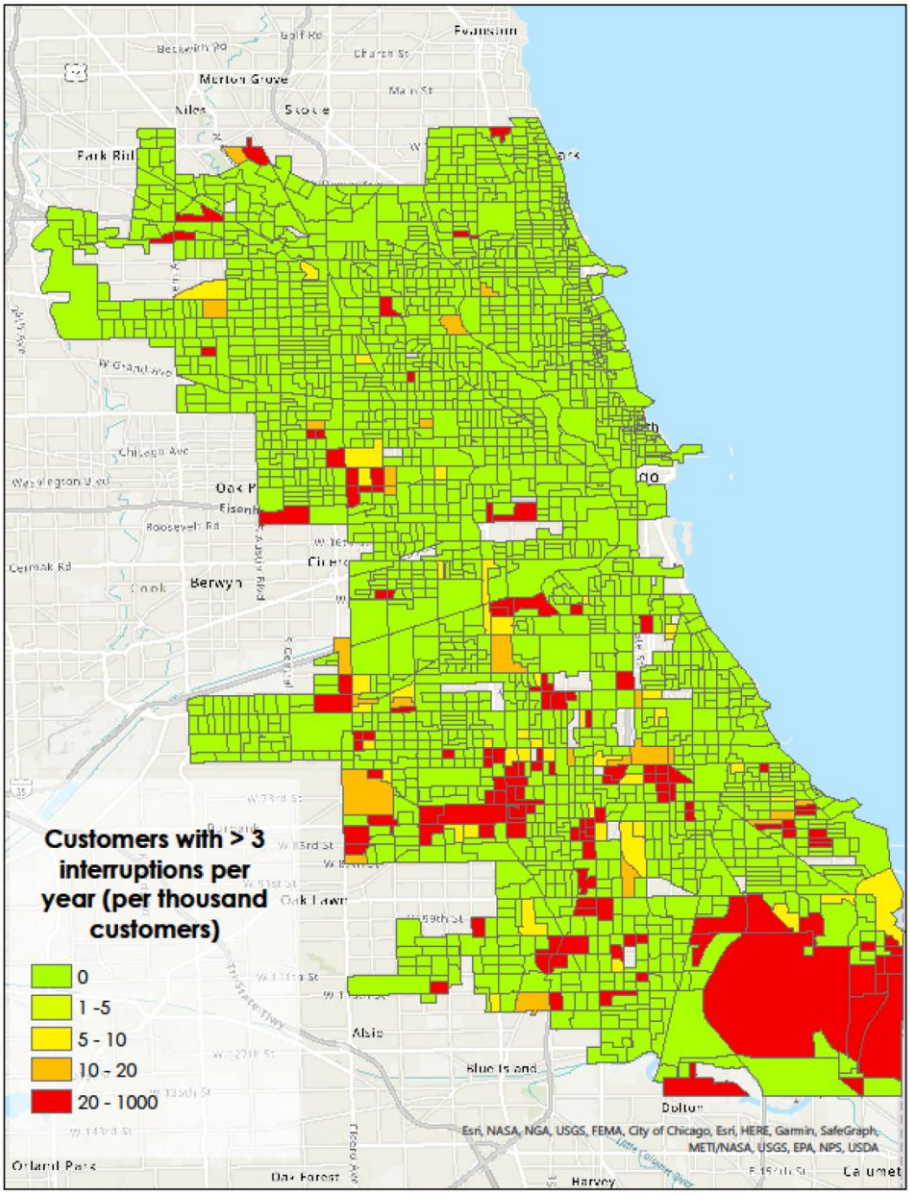
498 I further created an overlay of Equity Investment Eligible Communities with non-
499 Equity Investment Eligible Communities to help understand the results more easily. For
500 the following map, which expands that analysis out to cover all of Cook County, the
501 gray-shaded areas are non-Equity Investment Eligible Communities, while those with no
502 gray shading are Equity Investment Eligible Communities.



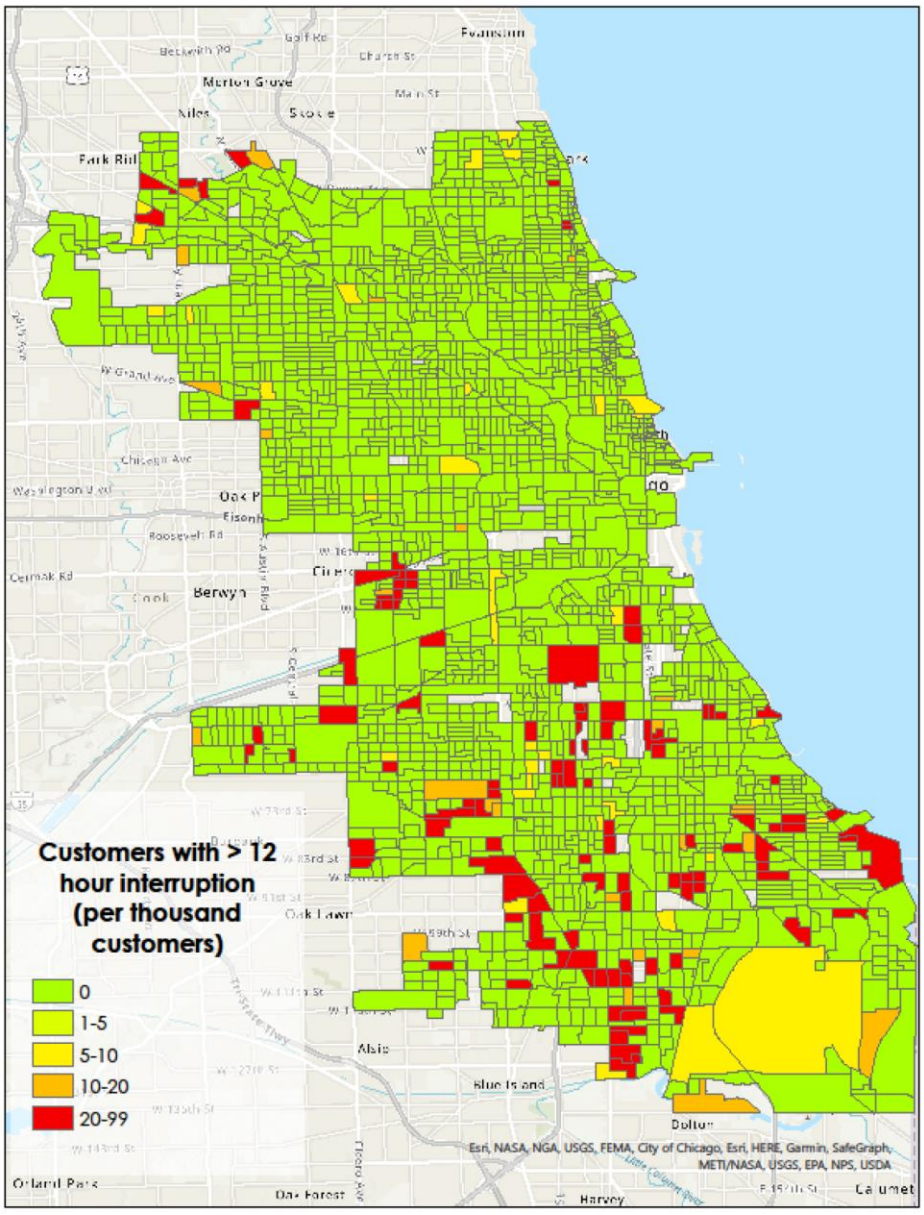
Looking at just the City of Chicago, there were some disturbing results:

- EIECs in Chicago had outages 83% more frequently than non-EIECs in Chicago.
- EIECs in Chicago had outages for 140% longer than non-EIECs in Chicago.
- EIECs in Chicago were 11.75 times more likely to have 4 or more outages in that year, as compared to non-EIECs in Chicago.
- EIECs in Chicago were 4.26 times more likely to have an outage lasting more than 12 hours than non-EIECs in Chicago.

The following map shows the geographic distribution of the number of customers (per thousand) that experienced more than 3 interruptions per year in the City of Chicago:



Finally, the map below shows the geographic distribution of the number of customers (per thousand) that experienced outages of 12 hours or more in 2021 in the City of Chicago:



These results show that there is still significant work to be done to ensure the Equity Investment Eligible Communities in Chicago are achieving the benefits of grid modernization. It also very clearly demonstrates the need for a geography-controlled comparison for equity-focused reliability indices. If using ComEd's proposed method, which simply looks at a total comparison of reliability indices across its system, these

drastic differences in reliability would not have been apparent, and there would be no incentive for ComEd to address this deficiency.

Q. Do you agree with witness White that a Supplier Diversity performance metric cannot address barriers to access and mentoring indices because there is no baseline?

A. No. While there are instances where a historical baseline can and should be established for performance metrics, a metric or measurement cannot be excluded simply because a historical baseline is not readily apparent. A plain reading of the statute indicates that the references to the baseline are included in the requirements of the plan the utility must file. In this case, if one must exist, it would mean that the baseline for ComEd for the two indices in question would be that 0% of equity investment eligible persons or equity eligible contractors overcame barriers, and that 0% of the total yearly value of supplier contracts over $1,000,000 included a subcontractor mentoring relationship.

Q. Do you agree with witness White that a Supplier Diversity metric should simply continue the reporting the utility has been doing for the past decade?

A. No. Based on a plain reading of the statute, there is no requirement or goal for ComEd to specifically limit the supplier diversity metric to the categories of diverse suppliers that have been tracked by the Company and reported to the Commission: Minority-Owned, Woman-Owned, and Veteran-Owned Business Enterprises (MWVBEs).

As previously explained, ComEd's Supplier Diversity metric suffers from two fatal flaws: first, it relies on the same supplier diversity reporting processes that the statute specifically finds "have not been sufficiently transformative in urgently moving electric utilities toward the State's ambitious energy policy goals," including "creating

quality jobs and economic opportunities, including wealth building, especially in economically disadvantaged communities and communities of color."[14] Second, it fails to be responsive to the extensive barrier reduction and mentoring requirements in the statute, completely ignoring the bulk of the metric category description.

Further, the use of equity eligible contractors and equity eligible persons, as in the alternative Performance Metrics Plan, solves one of the core deficiencies of MWVBE classifications. MWVBE classifications are not available for not-for-profit entities, co-ops, and other ownership structures, and the barriers to entry for certification are high for small businesses. Under ComEd's proposal, the Company would be disincentivized from contracting with community-based organizations, not-for-profit program implementers, social good-structured companies, and others because of their inability to obtain an MWVBE certification.

Q. Do you agree with ComEd witness Menard that tracking customer service hardship events is impractical?

A. No, and Mr. Menard appears to misunderstand the purpose of the metric. ComEd witness Menard testified that he agrees that hardship events involved very important contacts, but that hardship events are not practical for a first contact resolution metric because they will often not be resolved or completed on first contact (Menard, p. 10).

The fact that ComEd witness Menard testifies that hardship events will often not be resolved or completed on first contact is the exact issue the Customer Service metric in the alternative Performance Metrics Plan seeks to address. When customers are at their most vulnerable, it is not appropriate for them to have to continue to contact and

[14] [14] 220 ILCS 5/16-108.18(a)(4)

reach out to ComEd for their issue to be resolved, whether it is an outage, an emergency, or an inability to pay their bill.

ComEd's proposed metric measures whether the customer has contacted ComEd again within 72 hours. If a customer has to call back or re-establish contact within 72 hours, then that is a failure of the utility to address the customer's issue. A metric that measures success of failure so discretely cannot be considered impractical.

It could be that the metric is considered impractical because the Customer Service operations structure is not designed to resolved hardship events on first contact. In that case, it would be incumbent on the utility to adjust its customer service practices to be more directly responsive to customers facing such hardship events.

Q. Do you have concerns with witnesses Zarumba and Shields's benefits and costs analysis?

A. Yes, but only insofar as the testimony from ComEd witnesses Zarumba and Shields did not include information, calculations, or clear results on the costs and benefits in an easy to access manner. That made it difficult to review their assumptions and calculations.

Q. Did any of ComEd's Rebuttal Testimony lead you to reconsider your alternative Performance Metrics Plan?

A. No, there was no substantive or reasonable feedback provided on the metrics proposed in the alternative Performance Metrics Plan. However, in an effort to have a collaborative process and identify areas of compromise between CUB-EDF and other intervenors, I propose some changes to the alternative Performance Metrics Plan in the next section of my Rebuttal Testimony.

IV. Changes to alternative Performance Metrics Plan

Q. Are you proposing revisions to the alternative Performance Metrics Plan you proposed in your Direct Testimony?

A. Yes.

Q. Please describe those changes.

A. Yes. The alternative Performance Metrics Plan (Revised), included as EDF-CUB Ex. 4.1, includes several changes that incorporate proposals and feedback from other intervenors, strive to find areas of compromise, and provide additional clarity to the proposed metrics.

In the Reliability and Resiliency in Vulnerable Communities metric, the revisions to the alternative Performance Metrics Plan change the performance bonus and penalty range in an effort to find a compromise position, reducing the performance range from +/- 25% to +/-10%. The metric description was also amended to clarify that the metric does not exclude Major Event Days. Further, the metric description now includes illustrative examples of various levels of utility performance, and associated basis point calculations, to help stakeholders better understand the metric.

In the Peak Load Reduction metric, the metric description now includes illustrative examples of various levels of utility performance, and associated basis point calculations, to help stakeholders better understand the metric.

The alternative Performance Metrics Plan now includes a complete proposal for the Affordability metric, largely based on a proposal from intervenor COFI.

The Performance Metrics Plan now includes a complete proposal for the Interconnection, DER Integration, Rate Options, and Transparency metric, largely based on a joint proposal from intervenors Vote Solar, ELPC, and the Joint Solar Parties.

Q. What specific changes are you proposing for the Reliability and Resiliency in Vulnerable Communities metric?

A. Upon reviewing the testimony from other intervenors' direct testimony, and ComEd's rebuttal testimony, CUB-EDF are proposing clarifications and changes to its Reliability and Resiliency in Vulnerable Communities metric.

The metric itself is straightforward. The metric seeks to measure a simple question: is the reliability and resiliency performance in Equity Investment Eligible Communities better than the reliability and resiliency performance in non-Equity Investment Eligible Communities when you control for geography?

The metric captures this through four equity-focused indices, as well as two indices that ensure there is no degradation in the significant performance improvement achieved through previously established performance metrics, per the requirements in 220 ILCS 5/16-108.18(e)(2).

To provide further clarity on the calculation of the indices, the alternative Performance Metrics Plan has been amended to include the following additional descriptions under the Calculation Method section:

> The calculation of the four equity indices does not exclude Major Event Days, as the indices are a measure of resiliency, which includes the ability to withstand and recover from major disruptions, such as those caused by storms and other major events. Further, as the indices are comparing customer impacts within the same geographic area – a county – such an exclusion is not necessarily, as major events are by definition those that have significant impacts across a wide geographic area, and the

customers in each comparison would largely be experiencing the same events. (Ex 4.1, P. 7)

There are two main reasons why excluding Major Event Days from a calculation would not be appropriate.

First, the Reliability and Resilience in Vulnerable Communities equity-focused indices measure relative comparisons among customers in similar geographic areas. Major Events Days are widespread outages. That means that such events will most likely hit EIECs and non-EIECs alike within the same county or designated common geographic area. The indices thus are measuring the impacts of those outages on customers, and the utility's performance in restoring those outages, amongst communities impacted to ensure that EIECs see fewer and shorter duration outages.

The second main reason is because the four equity-focused indices are measuring reliability *and* resiliency. The inclusion of resiliency means that we are now also measuring the ability of the system and communities to respond to and withstand outages. If Major Event Days are excluded, then the metric incenting the utility to focus on resiliency.

The alternative Performance Metrics Plan is further adjusted to reflect a change in the performance range for the Reliability and Resiliency in Vulnerable Communities metric. In the initial proposed metric, the performance range was 75% - 125% of the annual target for the four equity-focused indices. This was intended to replicate the performance of the Company's energy efficiency performance metrics and to have consistency throughout the metrics plan. However, in reviewing the resulting performance needed to achieve the highest performance bonus, and to attempt to reach a compromise position, I lowered the performance band in the proposed metric to 90% -

110% of the annual target. Under the originally-proposed metric, the utility would have had to achieve performance where the SAIFI, SAIDI, CEMI, and CELID were each 32.5% better in EIECs than their same county non-EIECs by year 4 to reach the full performance bonus of 2.5 basis points per index. The revised performance band means that to get the full performance bonus, the utility will only have to achieve performance where the SAIFI, SAIDI, CEMI, and CELID were each 19% better in EIECs than their same county non-EIECs by year 4 (1.00 ratio being even performance, 0.90 being the target, and 0.81 being the performance level required to reach the highest performance bonus). On the flip side, the utility then achieves the maximum penalty once the equity-focused indices exceed a 0.99 ratio for the comparison between EIECs and non-EIECs by county.

The Reliability and Resiliency in Vulnerable Communities metric is further adjusted to include a provision that allows for measurement within a designated geographic area other than a county when the county population exceeds 1 million. This change was determined to be practical because of the significant population difference between Cook County and other counties, where Cook County's population is around 5 million, with no other county at more than a million. This change was also determined to be prudent because of the results of the data on reliability differences within the City of Chicago previously described, and the need to be able to assess reliability and resiliency differences within the City itself. The metric describes a designated geographic area as a "designated geographic area confined within a single county, for counties with a population of more than 1 million residents, that is comprised of a municipal boundary or boundaries with a population of more than 1 million residents." The intent of creating an

additional designated geographic area within a county would be to separate the City of Chicago from Suburban Cook County.

Finally, the alternative Performance Metrics Plan as revised now includes illustrative examples to help the utility and intervenors better understand the interrelationship between the different indices in the metrics. On Page 12, the Plan provides three illustrative examples to demonstrate how the Reliability and Resiliency in Vulnerable Communities Metric works in practice. The first example shows a mixed result, the second example shows very high performance, and the third example shows a result where the utility achieves high performance in EIECs only by letting non-EIEC performance go backwards.

Q. Can you discuss those three illustrative examples for the Reliability and Resiliency in Vulnerable Communities Metric?

A. Yes. The examples help the utility and stakeholder better understand the metric. The illustrative examples fill out a table that shows example performance results for each index, the associated Performance Target for the year, the percentage of the Target achieved, the relevant calculation, and the resulting basis points. The tables then total up to show the total basis points achieved for the Reliability and Resiliency in Vulnerable Communities Metric, which has a symmetrical maximum bonus of 10 basis points and penalty of 10 basis points. As a reminder, as stated on Page 9 of the alternative Performance Metrics Plan, values for SAIDI[equity index], SAIFI[equity index], CEMI4[equity index], and CELID[equity index] that are lower than 1 represent that the system reliability metrics for EIECs are better than non-EIECs, when controlled by geographic location (such as county). Conversely, values that are greater than 1 represent

that the system reliability and resiliency metrics for EIECs are worse than non-EIECs, when controlled by geographic location (such as county).

Example A

In this illustrative scenario, when normalized by county or designated geographic area, the SAIDI for EIECs was 4.5% worse than non-EIECs, the SAIFI for EIECs was 1% worse than non-EIECs, the CEMI for EIECs was 4% better than non-EIECs, and the CELID for EIECs was 17% better than non-EIECs. System-wide, the utility achieved a 1% improvement in System SAIFI, CAIDI, and minimum service levels vs. the baseline.

Yr2 Performance Targets

Index	Result	Performance Target	% vs. Target	Calculation	Basis Points
SAIDI [equity index]	1.045	0.9875	106%	- 0.25 bps / %	- 1.5
SAIFI [equity index]	1.01	0.9875	102%	- 0.25 bps / %	- 0.6
CEMI [equity index]	0.96	0.9875	97%	+ 0.25 bps / %	0.7
CELID [equity index]	0.83	0.9875	84%	+ 0.25 bps / %	2.5
System SAIFI	0.89	0.90	99%	0	0
System CAIDI	132	133	99%	0	0
Min. Service	244	246	99%	0	0
Total					1.2

Example B

The following illustrative example demonstrates very high performance by a utility, in which its performance in EIECs exceeds their target by more than 10% in each index.

Index	Result	Performance Target	% vs. Target	Calculation	Basis Points
SAIDI [equity index]	0.7	0.9875	71%	+ 0.25 bps / %	2.5
SAIFI [equity index]	0.8	0.9875	81%	+ 0.25 bps / %	2.5
CEMI [equity index]	0.88	0.9875	89%	+ 0.25 bps / %	2.5
CELID [equity index]	0.8	0.9875	81%	+ 0.25 bps / %	2.5
System SAIFI	0.89	0.90	99%	0	0
System CAIDI	131	133	98%	0	0
Min. Service	243	246	99%	0	0
Total					10

Example C

The final illustrative example demonstrates performance by a utility that achieved higher performance for EIECs in comparison to non-EIECs by letting the performance in non-EIECs get worse. Under this illustrative example, the utility achieves no reward for this approach.

Index	Result	Performance Target	% vs. Target	Calculation	Basis Points
SAIDI [equity index]	0.81	0.9875	82%	+ 0.25 bps / %	1.8
SAIFI [equity index]	0.94	0.9875	95%	+ 0.25 bps / %	0.5
CEMI [equity index]	0.96	0.9875	97%	+ 0.25 bps / %	0.3
CELID [equity index]	0.83	0.9875	84%	+ 0.25 bps / %	1.6
System SAIFI	0.92	0.90	102%	0	-3
System CAIDI	135	133	102%	0	-3
Min. Service	250	246	102%	0	-4
Total					-5.8

731

732 **Q. What specific changes are you proposing for the Peak Load Reduction metric?**

733 A. After reviewing ComEd's and intervenors' testimonies, I concluded that no changes were
734 necessary to the Peak Load Reduction metric itself. It remains the best approach to
735 achieve the Peak Load Reduction objectives of the statute through its shared savings
736 structure. However, to increase clarity on the interaction between the two indices in the
737 metric, three illustrative examples for the metric were included in the alternative
738 Performance Metrics Plan. The illustrative examples demonstrate how the Peak Load
739 Reduction works in practice. The first example shows a mixed result, the second example
740 shows very high performance, and the third example shows very poor performance.

The illustrative examples fill out a table that shows example performance results for each index, the associated Performance Target for the year, as applicable, the percentage of the Target achieved, the relevant Calculation, and the resulting basis points. The tables then total up to show the total basis points achieve for the Peak Load Reduction Metric, which has a symmetrical maximum bonus of 10 basis points and penalty of 10 basis points.

Example A

In this illustrative scenario, the utility achieves only 1800 MW of verified Baseline Peak Load Reductions from all programs by year four, significantly lower than the target, but achieves 900 MW of New Load Peak Load Reductions from electric vehicle optimized charging programs.

Index	Result	Performance Target	% vs. Target	Calculation	Basis Points
Baseline Peak Load Reductions Index	1800	2633	68%	- 0.2 bps / %	- 5
New Load Peak Load Reductions Index	900	-	-	1 bps per 150 MW	6.0
Total					1.0

Example B

In this illustrative scenario, the utility achieves 3000 MW of verified Baseline Peak Load Reductions from all programs by year four, 14% higher than the target, and achieves 600 MW of New Load Peak Load Reductions from electric vehicle optimized charging programs.

Index	Result	Performance Target	% vs. Target	Calculation	Basis Points
Baseline Peak Load Reductions Index	3000	2633	114%	+ 0.2 bps / %	2.8
New Load Peak Load Reductions Index	600	-	-	1 bps per 150 MW	4.0
Total					6.8

Example C

In this illustrative scenario, the utility achieves only 1300 MW of verified Baseline Peak Load Reductions from all programs by year four, about half of the target, and the New Load peak load is actually higher than the projection by 800 MW.

Index	Result	Performance Target	% vs. Target	Calculation	Basis Points
Baseline Peak Load Reductions Index	1300	2633	49%	- 0.2 bps / %	- 5.0
New Load Peak Load Reductions Index	-800	-	-	- 1 bps per 150 MW	-5.3
Total					-10.0

Q. Are you proposing any changes to the Supplier Diversity Expansion metric?

A. No, I do not propose changes to the Supplier Diversity Expansion metric. After reviewing ComEd's and intervenors' testimony, I concluded that the Supplier Diversity Expansion metric in the alternative Performance Metrics Plan was the best approach to achieve the multi-part objectives of the statute by targeting Equity Investment Contractors and Equity

Investment Eligible persons, as well as measuring utility performance in the areas specifically called out by the statute: Addressing Barriers to Access and Mentoring.

Q. What specific changes are you proposing for the Affordability metric?

A. After reviewing testimony by ComEd and the intervenors in this proceeding, in the interest of furthering compromise, we are proposing to largely adopt the Affordability metric originally proposed by COFI witness Howat in his direct testimony, and somewhat adopted by ComEd in their rebuttal testimony, for inclusion in the alternative Performance Metrics Plan. The Affordability metric COFI witness Howat proposed measures progress towards a 10% annual reduction in residential disconnections for non-payment over the 2024-2028 period in the top 20 ZIP codes with highest historical disconnection rates. In addition to Mr. Howat's proposal, I add a clause in the metric that states that the utility must take proactive steps to reduce disconnections, and is not allowed to achieve this metric simply by allowing arrearages to increase.

In order to calculate the metric, ComEd will compare the total number of disconnections in the established top 20 ZIP codes with the highest historical disconnection rates for each performance year with the incremental annual target. ComEd will collect the data annually from its customers information management system, determining the total number of disconnections for the year.

To earn an incentive in any year, ComEd must reduce disconnections in these ZIP codes by at least 6.7% from the prior year. Maximum performance bonuses require a 10% improvement or better. Further, the annual target gets reset at a 6.7% per year improvement vs. the prior year's target. The target for each year of the four-year period is

established at the beginning of the four-year period upon determination of the baseline - not readjusted each year based on the prior year's performance.

	Incremental Annual Target			
Baseline	**2024**	**2025**	**2026**	**2027**
[baseline]	[baseline]*[1-.067]	[2024 target] * [1-.067]	[2025 target] * [1-.067]	[2026 target] * [1-.067]

The baseline disconnections ratio will be calculated by totaling residential disconnections over the three-year period from 2017-2019 and dividing by the number of residential customers in the ZIP code. ZIP codes with fewer than 50 residential customers will not be included in the identification process.

There will be a maximum of 8 basis points for a performance bonus and 8 basis points for a performance penalty. There is a mid-way step of a bonus or penalty of 4 basis points if the utility reaches a partial performance in accordance with the following table:

Performance	>=Previous Year's Target	Previous Year's Target <= Performance < 3.3% improvement	3.3% improvement <= Performance < 6.7% improvement	6.7% improvement <= Performance < 10% improvement	> 10% improvement
Basis Point Allocation	-8 bps	-4 bps	0 bps	4 bps	8 bps

In light of the fact that arrearages can fluctuate for reasons outside of the utility's control, the metric does not include a prohibition on arrearages increasing. However, for the utility to satisfy the intent of the Act to proactively promote affordability, the utility must demonstrate it has undertaken proactive measures to enable these customers to afford their bills, rather than simply allowing arrearages to accumulate longer before disconnecting service.

Q. What specific changes are you proposing for the Interconnection, DER integration, Rate Options, and Transparency metric?

A. After reviewing testimony by ComEd and the intervenors in this proceeding, in the interest of furthering compromise, we are proposing to largely adopt the DER Interconnection and Utilization for Value ("DEIUV") metric jointly proposed by the Joint Solar Parties and ELPC/Vote Solar in their rebuttal testimony for inclusion in the alternative Performance Metrics Plan.

As previously described, the statute requires the following for the DER metric category:

> "(v) Metrics designed around the utility's timeliness to customer requests for interconnection in key milestone areas, such as: initial response, supplemental review, and system feasibility study; improved average service reliability index for those customers that have interconnected a distributed renewable energy generation device to the utility's distribution system and are lawfully taking service under an applicable tariff; offering a variety of affordable rate options, including demand response, time of use rates for delivery and supply, real-time pricing rates for supply; comprehensive and predictable net metering, and maximizing the benefits of grid modernization and clean energy for ratepayers; and improving customer access to utility system information according to consumer demand and interest." (220 ILCS 5/16-108.18(e)(2)(A)(v))

The description, by using semi-colons, clearly describes five different areas metrics can target.

Metrics can be designed around:

- the utility's timeliness to customer requests for interconnection in key milestone areas, such as: initial response, supplemental review, and system feasibility study;
- improved average service reliability index for those customers that have interconnected a distributed renewable energy generation device to the utility's distribution system and are lawfully taking service under an applicable tariff;

- offering a variety of affordable rate options, including demand response, time of use rates for delivery and supply, real-time pricing rates for supply;
- comprehensive and predictable net metering, and maximizing the benefits of grid modernization and clean energy for ratepayers;
- and improving customer access to utility system information according to consumer demand and interest.

The DERIUV metric jointly proposed by the Joint Solar Parties and ELPC/Vote Solar effectively addresses two of the five statutory areas (interconnection and maximizing benefits), and actually fully addresses the requirements of the interconnection clause by including interconnection levels that include supplemental review and feasibility studies. ComEd, in their direct and rebuttal testimony, also proposed a metric that targets all interconnection levels, but doesn't address any other elements of the statutory category.

The DERIUV metric includes two indices that measure utility performance: the Interconnection Index, and the DER Utilization for Value index. The Interconnection Index measures the utility's performance in processing interconnection applications under 83 Ill. Adm Code Part 466 and requires continuous improvement relative to the previous year's performance to achieve incentives. The Interconnection Index focuses on all types of interconnection customers (Levels 1 through 4), and includes incentives for accelerating application processing milestones compared to the Part 466 requirements and penalties for missing the deadlines. Potential basis point penalties carry greater weight than potential incentives to reward timely compliance and provide symmetry for the combined DERIUV metric, as further described below.

The DER Utilization for Value index aligns utility financial incentives with maximizing grid modernization benefits for ratepayers, as required by CEJA, by allowing the utility to earn a portion of savings realized through the deployment and operation of distributed energy resources. The metric incentivizes the utility to facilitate DER deployment by identifying grid needs that can be beneficially and cost-effectively served by DERs, and implementing DER programs and other market participation pathways to unlock additional value from DERs serving those grid needs. The Interconnection Index and the DUV index operate in tandem to incentivize timely interconnection of value-creating DERs.

Details of the calculation methods, data collection methods, annual performance targets, and incentives or penalties are included in the revised alternative Performance Metrics Plan.

Q. Are you proposing any changes to the Customer Service metric?

A. No, there are no changes proposed to the Customer Service metric. After reviewing ComEd's and intervenors' testimony, I conclude that the Customer Service metric in the alternative Performance Metrics Plan is the best approach to achieve the objectives of the statute by targeting improvement in responsiveness to customers during times of heightened customer need and vulnerability.

V. Recommendations for Adopting Additional Tracking Metrics

Q. Are you recommending the adoption of any additional tracking metrics proposed by ComEd or intervenors?

A. Yes. Based on the review of the Direct Testimony and Rebuttal Testimony of ComEd, as well as the Direct Testimony from Staff and intervenors, I endorse the inclusion of certain ComEd tracking metrics below in the final Performance Metrics Plan. While I do not copy the structure and text of these tracking metrics into the format of the alternative Performance Metrics Plan, I believe that can be done when the final metrics plan document is developed. Further, just because I endorse the adoption of a tracking metric does not mean that I agree with every statement used in the text of the tracking metric description by the Company, nor every statement made by witnesses in support of a tracking metric.

Recommended additional tracking metrics to be adopted from ComEd rebuttal metrics:

- III. Cost Savings: A. Avoided Outage Cost Due to Grid Modernization Investments
- III. Cost Savings: B. Number of NWA Opportunities
- V. Equity: B. DSM Program Equitable Participation
- V. Equity: C. Financial Assistance Outreach & Education

VI. Overall Metrics Considerations

Q. Based on your review of other intervenors' testimony and ComEd's Rebuttal Testimony, is there any additional information that would be helpful to clarify around the Performance Metrics as a whole?

A. Yes. I make observations on several overarching issues below: basis points allocation rationale, the need for intervenors to propose cost-benefit analyses, and ComEd's proposed tariff.

Q. In developing the alternative Performance Metrics plan, did you have a specific rationale for the number of basis points assigned to each performance metric?

A. Yes. I considered several qualitative factors in the allocation of basis points of bonuses and penalties to each metric. Though I am not a lawyer, I reviewed the plain language of the statute as a whole to gain an understanding of the relative importance of each individual metric in proportion to the goals and outcomes established by the General Assembly. In particular, I note the following passage in the statute, and made a judgment that basis point levels should be allocated to focus more on environmental and equitable outcomes in comparison to the basis point allocation in ComEd's original proposal and in its Rebuttal proposal:

> *though Illinois has taken some measures to move utilities to performance based ratemaking through the establishment of performance incentives and a performance based formula rate under the Energy Infrastructure Modernization Act, these measures have not been sufficiently transformative in urgently moving electric utilities toward the State's ambitious energy policy goals: protecting a healthy environment and climate, improving public health, and creating quality jobs and economic opportunities, including wealth building, especially in economically disadvantaged communities and communities of color." 220 ILCS 5/16-108.18(a)(4)).*

I discuss the basis point allocation specifically of the Reliability and Resiliency in Vulnerable Communities metric and the Peak Load Reduction metric, and their allocated basis points, below:

- **Reliability and Resiliency in Vulnerable Communities metric.** The allocation of 10 basis points of bonuses and 10 basis points of penalties to the Reliability

and Resiliency in Vulnerable Communities metric was determined through a review of several factors. In particular, I note that there were a total of 20 basis points determined by ComEd's reliability metrics under years 1 through 3 of the Energy Infrastructure Modernization Act per Section 5/16-108.5(f) of the Public Utilities Act:

- 20% improvement in system-wide SAIFI (5 bps penalty)
- 15% improvement in system-wide CAIDI (5 bps penalty)
- 20% improvement in SAIFI for the Southern Region (5 bps penalty)
- 20% improvement in SAIFI for the Northeastern Region (5 bps penalty)

The Reliability and Resiliency in Vulnerable Communities Metric contains a total spread of 20 basis points at risk (10 bps bonus and 10 bps penalty) as well. This is an appropriate and historically consistent level for new reliability-focused performance metrics. It is appropriate to compare the basis points at risk in the initial three years of EIMA to the basis points at risk in the initial years of a new performance metric, rather than basing a comparison on an established metric and investment plan. However, this should not be construed as support or endorsement for increasing the basis points at risk for reliability-related metrics in future years or in future plans.

This metric is designed to encourage the utility to achieve the performance target in the least costly manner. The Reliability and Resiliency in Vulnerable Communities performance incentive mechanism measures improvements in SAIDI, SAIFI, and Minimum Customer Service Levels for customers located in EIECs. The performance metric maintains performance for the utility service

territory as a whole, while targeting performance improvements for communities that are most vulnerable to hardship from extended and frequent outages, and ensures those communities not only meet but exceed the utility reliability performance for all customers in similar geographic locations. This design targets EIECs that are underperforming non-EIECs to incentivize more focused investments to achieve performance goals in a least cost manner.

Further, the metric specifically targets improvements in EIECs, and more focused investments should lead to lower costs and increased affordability, impacting the value of benefits to EIECs and the affordability of customer's electric bills, including low-income customers.

Finally, by targeting investments to support reliability and resiliency in EIECs, there could be improved ability to interconnect distributed energy resources in these communities as well. In the forthcoming Multi-Year Integrated Grid Plan proceeding, the Commission could approve or direct the use of renewable energy resources and distributed energy resources as investments, programs, or policies designed to help achieve the performance goals of this metric.

- **Peak Load Reduction metric.** The allocation of 10 basis points of bonuses and 10 basis points of penalties to the Peak Load Reduction metric was determined through a review of several factors. In particular, the design of the metric focuses on a shared savings mechanism for the bonus and penalty calculation. The performance bonus for the "Baseline Peak Load Reductions Index" and the "New Load Peak Load Reductions Index" is set at 1 basis point per 150 MW of actual

peak load reductions achieved, calculated by a third party evaluator(s). Penalties for the "Baseline Peak Load Reductions Index" are based on a calculation to arrive at a similar value averaged over the performance period.

I arrived at the calculation of 1 basis point per 150MW by calculating the capacity value of peak load reductions, establishing a 20% share of capacity market savings to attribute to utility performance, and calculating the revenue impact per basis point for ComEd. The result of the calculation was 149 MW/bps, and I rounded it to the nearest 10 MW, which was 150 MW/bps. Please see the following table:

Reference Capacity Price	$68.96
Forecast Pool Requirement	1.0898
Annual Capacity Value per 1 MW	$27,430.70
Utility Shared Savings %	20%
Util. Shared Savings of Annual Capacity Value per 1 MW	$5,486.14
Revenue impact of 1 pbs	$818,460
Performance Metric Value (MW/ 1 bps)	149

Attached to this testimony as CUB/EDF Ex. 4.2, JF CUB EDF 2.01 Part B Attachment includes more details. Nothing in my discussion of the design of the shared savings mechanism for the Peak Load Reduction should be construed as a statement that benefits from capacity reduction are the only benefits from peak load reduction.

I believe that a 20% shared savings mechanism is an amount that is likely to encourage the utility to achieve the performance target in a cost effective manner, as that is in the range (in some cases exceeding the range) of the fee charged by aggregated demand response providers in demand response markets.

I also believe that aligning utility incentives with the deployment of demand response programs, defined in the statute as "measures that decrease peak electricity demand or shift demand from peak to off peak periods" will promote renewable energy and distributed energy.

Q. Would you agree with your proposed basis point calculations for each metric category if the proposed metrics were not adopted?

A. No. The proposed basis points for each category were done in consideration for the metrics actually proposed. For example, if the Commission were to adopt a significantly lower peak load reduction target, the associated basis points likely would need to be less. The basis points proposed in the Peak Load Reduction metric are dependent on their relationship to the shared savings construct. It is not appropriate for the entire capacity value (or more) of peak load reduction for customers to be distributed to the utility as profit. The utility can, and should, operate within the same fee parameters as the private industry that has been doing demand response for more than a decade.

A second example would be related to reliability and resiliency. If the Commission chooses to forgo the adoption of reliability metrics that appropriately target EIECs, and correctly account for geographic disparities, then my perspective of the assigned basis point performance value of the reliability and resiliency metric category would likely change.

Q. Do individual intervenors have to propose their own cost-benefit analysis?

A. No. My plain reading of the statute indicates that the Commission is charged with the responsibility for developing a methodology to calculate net benefits as part of its

determination of the appropriate level of a performance incentive that ensures that benefits exceed costs for customers.[15] It is my understanding that this does not require a complete litigation of the costs of proposed metrics, which is likely not possible at this stage, and would pre-empt such consideration in the Multi-Year Integrated Grid Plan proceeding.

Q. Do you approve of ComEd's proposed Rider PBR-M?

A. I have not been able to provide edits to the exemplar Rider PBR-M tariff proposed by ComEd, and I do not believe it is necessary to do so at this point in the proceeding. My lack of comment on the tariff language should not be construed as acceptance. I believe ComEd will be required to develop tariffs as part of the Multi-Year Rate Plan and tariff language can be reviewed at that time to ensure it reflects the Commission's final order in this case.

X. Final Recommendations

Q. What are your final recommendations to the Commission?

A. I recommend the Commission adopt the revised alternative Performance Metrics Plan as provided in Exhibit 4.1 of this Rebuttal Testimony, which includes revisions to the Reliability and Resiliency in Vulnerable Communities metric, further details and descriptions for multiple metrics, the inclusion of the Affordability metric adopted from COFI's proposal, and the inclusion of the DER metric adopted from the joint proposal

[15] 220 ILCS 5/16-108.18(e)(2)(F)

from the Joint Solar Parties and ELPC/Vote Solar. Additionally, I recommend the inclusion of certain tracking metrics proposed by ComEd as supplemental to the tracking metrics included in the alternative Performance Metrics Plan, with stated conditions. Finally, I recommend the Commission reject the performance metrics proposed by ComEd.

Q. Does this conclude your direct testimony?

A. Yes.