STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY	)	
PETITION FOR APPROVAL OF BENEFICIAL ELECTRIFICATION PLAN UNDER THE ELECTRIC VEHICLE ACT, 20 ILCS 627/45 AND NEW EV CHARGING DELIVERY CLASSES UNDER THE PUBLIC UTILITIES ACT, ARTICLE IX	)	**Dockets 22-0432/22-0442 (Consol.)**

Rebuttal Testimony of

Eric Borden and Courtney Lane

On Behalf of

The People of the State of Illinois

AG Exhibit 2.0

November 16, 2022

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I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name, title, and employer.

A. **Mr. Borden:** My name is Eric Borden. I am a Principal Associate at Synapse Energy Economics ("Synapse"), located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

Ms. Lane: My name is Courtney Lane. I am a Principal Associate at Synapse, located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

Q. Have you previously submitted testimony in this proceeding?

A. Yes. We submitted direct testimony in this proceeding on behalf of People of the State of Illinois represented by the Office of the Attorney General ("AG") on September 22, 2022.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of our rebuttal testimony is to respond to the rebuttal testimony provided by Commonwealth Edison Company ("ComEd" or the "Company") and to support aspects of direct testimony submitted by the Staff of the Illinois Commerce Commission ("ICC Staff"). While we are not addressing the testimony of other parties, this should not be seen as supporting or agreeing with testimony we do not address.

Q. What materials did you rely on to develop your testimony?

A. In addition to reviewing the testimony of the Company and ICC Staff, the sources for our testimony are public documents, and our knowledge and experience in this field.

Q. Please summarize the issues and recommendations discussed in this testimony.

A. Our testimony discusses the following issues:

- ComEd's rebuttal testimony does not justify the magnitude of its Beneficial Electrification Plan ("BE Plan") budget or the size of customer rebate offerings, particularly in light of available federal and state funding.

- ComEd's proposal to include non-transportation electrification in its BE Plan creates complications with the Company's execution of its 2022-2025 Energy Efficiency and Demand Response Plan ("EE and DR Plan").

- The Electric Vehicle Act ("EVA") requires the examination of "net revenue from all electric charging in the service territory"[1] and our net revenue analysis finds the cost of ComEd's proposed BE Plan significantly outweighs potential benefits on both a cumulative and an annual basis.

- The Company's proposal to treat operation and maintenance costs as a "regulatory asset" results in higher costs for ratepayers than would result under traditional ratemaking practices or a multi-year rate plan and is not in the best interest of ratepayers.

II. RESPONSE TO COMED REBUTTAL TESTIMONY

BE Plan Budget

Q. What concerns did you raise in direct testimony regarding ComEd's proposed BE Plan budget?

[1] 20 ILCS 627/45(d).

A. We indicated that ComEd's proposed BE Plan budget of $100 million per year was significantly larger on an annual, per-customer basis than other utilities in states with similar electric transportation goals to Illinois.[2] We further questioned whether the proposed funding levels are reasonable given the increase in federal funding available through the federal *Inflation Reduction Act* ("IRA") that provides rebates and tax credits for many of the same measures ComEd proposes to offer through the BE Plan.[3]

Q. How did ComEd respond to these concerns?

A. ComEd addresses our concerns by stating that its proposed budget is justified because Illinois is currently behind other states in electric vehicle ("EV") adoption.[4] To support this point, the Company presented a table showing EV adoption and charger installation rankings by state, which purports to show that Illinois lags behind other states in adoption.[5] The Company also criticized our per-customer benchmarking analysis for not properly calculating the costs of Consolidated Edison's EV adoption plan, not considering that the bill impacts of the BE Plan will mostly be experienced by the Company's Commercial and Industrial classes, and not presenting the analysis in the context of utility sales.[6] Additionally, ComEd also stated that its duplicative incentives are allowed under the EVA and appropriate because of possible limited funding of state and federal incentives.[7]

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[2] AG Ex. 1.0R at 13:232–240.
[3] *Id.* at 15:265–16:297.
[4] ComEd Ex. 9.0 at 4:63–72.
[5] *Id.*
[6] *See id.* at 4:73–6:105.
[7] *See* ComEd Ex. 6.0 at 7:134–9:181; ComEd Ex. 7.0 at 10:192–13:248.

Q. Do you agree with the Company's assertion that Illinois' limited adoption of EVs justifies the high total spend included in the BE Plans?

A. No, we do not. First, ComEd's chart showing EV adoption and charger installation rankings by state obscures the actual difference in adoption by using a ranking, rather than total numbers. For example, Illinois ranks three spots lower than New York in EVs per 1,000 registrations in ComEd's chart, but there is absolutely no indication in the chart as to what the actual difference in registered EVs is between the states. Indeed, through June 2022, New York (with a significantly larger population than Illinois) had 51,870 EVs, in comparison to 36,520 EVs in Illinois.[8] In absolute terms, the 15,350 additional EVs in New York are equivalent to less than 0.2 percent of light-duty vehicles in Illinois.[9]

This data shows that states are in the early stages of EV adoption, yet the Company uses this per-capita adoption table to propose spending significantly more on its BE Plan than other utilities across the United States. ComEd's chart also does not provide any indication regarding how the states are performing in relation to their EV adoption goals. Therefore, this information does little to justify the fact that ComEd's proposed budget is higher than those of utilities located in other states.

Second, even assuming Illinois is behind in EV registrations compared to other states, it does not mean that ratepayers should be unduly burdened to make up for that difference. ComEd has not demonstrated what the actual impacts of its programs will be on EV adoption, or how private and public funding will develop in the coming years to make up

[8] Alternative Fuels Data Center, *Electric Vehicle Registration Counts by State*, https://afdc.energy.gov/data/10962.
[9] Alternative Fuels Data Center, *Vehicle Registration Counts by State*, https://afdc.energy.gov/vehicle-registration.

the gap. For example, there are numerous state and federal incentive programs available to ComEd customers that may grow the number of EVs in Illinois to parity with other similar states.[10] Also, many factors other than utility rebates affect EV adoption, such as the availability of EVs, promotion by automobile dealers, the effect of cold weather, and access to low-cost charging options.

Q. Did ComEd provide any corrections to your benchmarking analysis included in your direct testimony?

A. Yes. ComEd states that we missed certain budget elements related to Consolidated Edison's budget in New York.[11] ComEd does not report issues with the other utility budgets we include in our analysis.

Q. What is your response to this correction?

A. We reexamined Consolidated Edison's budget with the additional allocations and accept this revision. A new table reflecting this change can be found in our revised direct testimony.[12] However, even with this correction, ComEd's proposed BE Plan budget is still higher than Consolidated Edison's budget on an annual, per-customer basis. ComEd's proposed BE Plan budget is $24.54 on an annual, per-customer basis, whereas Consolidated Edison's EV Plan is $16.51.[13]

Q. In its rebuttal testimony, ComEd also indicates flaws with your benchmarking analysis concerning customer classes and consumption levels; do you agree with these critiques?

[10] AG Ex. 1.0R at 15:265–16:297.
[11] ComEd Ex. 9.0 at 6:96–105.
[12] AG Ex. 1.0R at 13:239–240.
[13] *Id.*

A. No, we do not. In response to our benchmarking analysis that compared utility EV budgets based on the number of customers, ComEd states that we did not account for customer classes and consumption levels.[14] However, our analysis was not meant to estimate bill impacts of the proposed BE Plan. The analysis was meant to normalize utility spending by size of each utility, measured by the number of customers, which it did correctly.

ComEd further states that a more appropriate way to compare utilities would be based on respective utility electricity sales.[15] However, ComEd does not provide any justification for why this choice is more accurate, other than that it happens to make its ranking compared to other utilities more advantageous. Moreover, other comparisons show that ComEd proposes to spend significantly more on its BE Plan when compared to other utilities. For example, ComEd's proposed BE Plan budget equals nearly 2 percent of its total annual revenues, which is the highest of all the utilities examined, as shown below in Table 1.

[14] ComEd Ex. 9.0 at 4:73–5:90.
[15] *Id.* at 5:80–82, 6:95.

Table 1. Approved Utility Program Expenditures vs. ComEd's BE Plan Proposal

State	Utility	Annual Budget as Percent of Annual Revenues
IL	Commonwealth Edison Co	1.98%
CA	Southern California Edison Co	1.95%
CO	Public Service Co of Colorado	1.29%
CA	San Diego Gas & Electric Co	1.14%
CT	Connecticut Light & Power Co	0.81%
NJ	Public Service Elec & Gas Co	0.86%
NY	Consolidated Edison Co-NY Inc	0.74%
CA	Pacific Gas & Electric Co.	0.64%
MA	Eversource	0.36%
OR	Portland General Electric Co	0.13%

Q. Do you agree with the Company's assertion that its budget size and incentives are allowed under the EVA and appropriate because of possible limited funding of state and federal incentives?

A. No, we do not. While it is always true that Congress, the State of Illinois, or private parties may reduce existing, or offer additional, EV adoption incentives, ComEd's plan proposes to offer a host of incentives for measures that are already incentivized. For example, ComEd proposes to offer passenger EV purchase rebates ($6 million), commercial EV purchase rebates ($35 million), transit bus purchase rebates ($6 million), school bus purchase rebates ($6 million), and rebates for public charging installation ($10 million).[16] Yet, as shown in AG Exhibit 1.4, there are existing incentives from either the

[16] ComEd Ex. 1.01 at 35 (passenger EVs), 39–40 (commercial vehicles, along with transit and school buses), 40–41 (public charging).

IRA or other federal and state agencies that already provide rebates to encourage adoption of these measures.[17]

Moreover, since the submission of our direct testimony, the Department of Energy ("DOE") announced that Illinois would also receive $131,452,470 for home electrification rebates, with particular focus on low-income customers,[18] thus bolstering the amount of money available to ComEd's ratepayers for non-transportation electrification. In particular, DOE will provide a rebate of up to $8,000 for heat pump installation, $1,750 for a heat pump water heater, and $4,000 for panel/service upgrades.[19] Yet, ComEd proposes to add two additional incentives for the installation of heat pumps: $2 million from the BE Plan[20] and an additional incentive from the Company's 2022-2025 EE and DR Plan.[21]

Thus, in total, $65 million of ComEd's $100 million annual BE Plan budget overlaps with state and federal incentives. While we do not believe that ComEd can only offer rebates not addressed by other incentives, ComEd's proposal shows little to no recognition of, or coordination with, existing incentives and uses slightly more than a quarter of its proposed annual budget to incentivize the adoption of technologies not specifically addressed elsewhere despite the provision in the EVA that utilities must

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[17] *See* AG Ex. 1.4.
[18] DOE, *Biden-Harris Administration Announces State and Tribe Allocations For Home Energy Rebate Program*, https://www.energy.gov/articles/biden-harris-administration-announces-state-and-tribe-allocations-home-energy-rebate.
[19] *Id.*
[20] ComEd Ex. 1.01 at 36–37.
[21] *See* ComEd response to AG 2.17.

consider opportunities for "coordination and cohesion" between state and federal incentives and the BE Plan.[22]

The Company's redundant incentives also further exacerbate free ridership problems, further discussed below, where ComEd claims that all adoption is due to its incentives, even though multiple incentives for measures exist in the market.

Q. What annual budget should the Commission adopt for this BE Plan?

A. The discussion above outlines reasons why ComEd's proposed budget is too high, further supported by our discussion below regarding rebate levels, interactions with energy efficiency, free ridership, and expected net revenues from the proposed BE Plan. Overall, we remain convinced that a maximum budget of $28 million is appropriate in this case, equal to 1 percent of ComEd's annual revenue requirement of $2.86 billion requested by the Company for 2023.[23] While we understand the budget cap is a legal question and subject to statutory interpretation, the Commission's authorized budget is a largely separate policy question wherein the Commission has significant discretion. While we do not provide an opinion on the budget cap as it relates to the legal question here, we provide an opinion as a matter of policy. Given the significant flaws in ComEd's proposal, a $28 million annual budget, as recommended in our direct testimony, is sufficient to deploy infrastructure and gather data so that the Company can file a higher quality and better supported BE Plan in the next plan cycle.

<u>Rebates – Statutory Limitations & Policy Concerns</u>

[22] 20 ILCS 627/45(d)(viii).
[23] AG Ex. 1.0R at 46:808–817.

Q. How does the Commission's Interim Order impact the Company's BE Plan?

A. While we are not lawyers and do not offer a legal opinion, we understand that the Commission recently entered an Interim Order prohibiting the Company from offering rebates through its BE Plan for passenger EVs and to public and private organizations and companies for the installation and maintenance of Level 2 and Level 3 charging stations because the Illinois General Assembly granted the authority to administer these specific types of rebates to the Illinois Environmental Protection Agency.[24] The order appears to prevent ComEd from offering rebates for the purchase of passenger EVs through its Residential program and rebates for public and private organizations and companies to install and maintain Level 2 and Level 3 charging stations in ComEd's C&I Public Sector program.

<u>Rebates for Residential Charging</u>

Q. What concerns did you raise in direct testimony regarding the subsidy level of ComEd's proposed rebates for Level 2 charging?

A. Our main concern was that ComEd's proposed rebate levels for residential chargers are substantially higher than those of the other utility programs we reviewed. Specifically, we found that only Portland General Electric ("PGE"), Connecticut Light & Power ("CL&P"), and Public Service of Colorado offer residential charging rebates and these rebates are substantially lower than ComEd's proposed rebates of up to $2,500 for non-low-income customers and up to $3,750 for low-income, Environmental Justice ("EJ"), and Restore, Reinvest, Renew ("R3") customers. All three utilities offer a $500 rebate for non-low-income residential customers, which is $2,000 less than what ComEd

[24] *See* Interim Order at 23–24.

proposes.[25] For low-income customers, the rebates range from a low of $500 for CL&P up to $1,300 for Public Service of Colorado, which is $3,250 to $2,450 less than ComEd's rebates, respectively.[26]

Q. How did ComEd respond to these concerns?

A. The Company states that the amount of the rebate provided to a customer under the Residential EV Charging Infrastructure Sub-program is capped at the cost of the charger and installation, which would be lower than its proposed maximum rebate.[27] ComEd further responds by stating that maximum charger rebate levels are needed as they reflect the EVA's stated goal for Illinois "to be the best state in the nation in which to drive and manufacture electric vehicles."[28]

Q. Does this response alleviate your concerns?

A. No. Higher-than-necessary subsidy levels are a waste of ratepayer funds, inequitable, and unnecessary. Experience from other jurisdictions has shown that utilities do not need to incentivize the full cost of the charger and installation to encourage non-low-income customers to purchase Level 2 chargers. A smaller rebate offering is enough to address the financial barriers associated with the purchase and installation of EV charging stations for these customers. In addition to the three states cited above with lower rebate levels, Baltimore Gas and Electric Company ("BGE") in Maryland, an Exelon company and affiliate of ComEd, has had tremendous success with a $300 rebate level for Level 2 "smart" chargers, $2,200 less than ComEd's proposed maximum rebate, and received an

[25] AG Ex. 1.0R at 23:444–25:446.
[26] *Id.*
[27] ComEd Ex. 7.0 at 23:458–461.
[28] *Id*. at 23:462–468.

average of 70 rebate applications per month.[29] BGE's $300 charger rebate was so popular with customers that it oversubscribed its approved allotted number of residential rebates and had to begin waitlisting customers.[30]

It is also worth noting that the Public Service Commission of Maryland ("MD PSC") did not approve BGE's recent request to offer an additional 2,500 residential rebates at a $300 rebate level. The MD PSC stated in its decision that expanding rebates is not necessarily the best way to incentivize EV adoption,[31] noting that "the use of a smart charger is becoming less relevant as more EVs enter the market with the capability of leveraging on-board telematics to not only capture the vehicle's charging data, but also program charging during specific times of the day, all without the need for a smart charger."[32]

Lastly, while the EVA contains ambitious electrification goals for Illinois, that does not indicate that ratepayers should overpay for achievement of those goals. If ComEd can obtain the same level of participation in its Residential EV Charging Infrastructure Sub-program with a lower rebate level, as has been demonstrated in other jurisdictions, it should do so. Otherwise, the cost of meeting the EVA's goals will be higher than needed and ratepayers will bear that burden.

Q. Would you like to clarify your position on rebates for Level 1 chargers?

[29] Baltimore Gas and Electric, Semi-Annual Progress Report and Mid-Course EV Program Evaluation Report, September 15, 2021, Public Service Commission of Maryland ("MD PSC") Case No. 9478, at 2–3, 25.
[30] *Id*. at 2–3.
[31] MD PSC Order No. 90036 in Case No. 9478, January 11, 2022, at 22.
[32] *Id*. at 23.

A. Yes. In our direct testimony we inadvertently added in the term rebate to our discussion of Level 1 chargers.[33] We did not intend to recommend that ComEd provide rebates for Level 1 chargers. Our discussion was meant to convey the fact that Level 1 chargers are sufficient for drivers who charge overnight and travel 30-40 miles per day (this level of charging capability often comes with the purchase of an EV). We provide this information to demonstrate that ComEd has not justified the need or efficacy of higher cost Level 2 rebates.

<u>Interactions Between Non-Transportation Electrification and Energy Efficiency Plans</u>

Q. What concerns did you raise regarding non-transportation electrification and the Company's EE and DR Plans?

A. We described four concerns in response to ComEd's proposal to provide incentives through both the BE Plan and the EE and DR Plan for the same non-transportation electrification measure (meaning that some measures would have two applicable rebates) and to count the resulting savings towards its EE and DR Plan goals. First, we explained that ComEd's proposal to utilize additional ratepayer funding from the BE Plans to accomplish its EE and DR Plan goals possibly violates Section 8-103B(m) of the Public Utilities Act, which caps how much money ComEd can collect from ratepayers for energy efficiency investments to accomplish its EE and DR Plan goals..[34] [35] Second, we

[33] *See* AG Ex. 1.0R at 25:447–460, 27:500–502.
[34] *Id.* at 33:610–35:632.
[35] The Company currently spends up to the ratepayer cap provided in Section 8-103B(m), thus meaning that any additional ratepayer spend would put ComEd over the cap. *See Commonwealth Edison Co.*, *Approval of the Energy Efficiency and Demand Response Plan Pursuant to Section 8-103B of the Public Utilities Act*, ICC Docket No. 21-0155, ComEd Ex. 1.01R at 8 (Mar. 1, 2022); Statewide Quarterly Report, ComEd 2022-Q1, Tab 2-Costs, line 32 (May 13, 2022).

noted that ComEd's proposal would allow the Company to increase its return on its energy efficiency investments because ComEd receives a greater return when it creates more energy efficiency savings under its EE and DR Plan and the BE Plan would generate increased savings.[36] Third, we described that the Commission approved ComEd's Revised 2022-2025 EE and DR Plan in ICC Docket No. 21-0155 and at the time considered the proposed budget, savings, costs, and cost-effectiveness for the measures in the plan, which ComEd will dislodge by using additional ratepayer funding from the BE Plans.[37] Fourth, we explained that ComEd included protections in its EE and DR Plan (but not in its BE Plan) where the Company agreed to only promote direct installation of low-income non-transportation electrification measures when the total measure installation within each household is expected to lower total energy bills.[38]

Q. How did ComEd respond to these concerns?

A. The Company states that it is important to include non-transportation electrification measures in its BE Plan because they will result in reductions in air pollution, particulate matter, and CO_2 emissions.[39] The Company rejects our other concerns, aside from agreeing to only promote direct installation of low-income electrification measures in applications where all measure installations in a home are collectively expected to lower total energy bills.[40]

Q. Does ComEd's response alleviate your concerns?

[36] AG Ex. 1.0R at 35:633–639.
[37] *Id.* at 35:640–36:655.
[38] *Id.* at 36:662–37:684.
[39] ComEd Ex. 7.0 at 3:44–57.
[40] *Id.* at 6:104–120.

A. No. The Company only addresses one of our concerns related to the protection of low-income customers. It fails to address the other issues it creates by proposing to count the savings generated by the BE Plan towards its EE and DR Plan savings goals. Thus, we continue to have the same concerns that we describe above and have also become aware of three additional issues created by the Company's proposal since the filing of our direct testimony.

First, stakeholders negotiated energy efficiency savings goals that were included in a stipulation approved by the Commission in ICC Docket No. 21-0155 and the Company's proposal upsets the terms of that negotiation. The parties in that docket submitted a negotiated stipulation and draft plan where they agreed to a framework for ComEd's 2022-2025 EE and DR Plan based on the budgets established by Section 8-103B(m) for the four-year plan period.[41] That EE and DR Plan includes a target amount of energy savings that was based on an identified budget for each year of the plan cycle.[42] ComEd's proposal frustrates the premises of the stipulation entered between the parties and approved in ICC Docket No. 21-0155 by making additional funding available to accomplish the EE and DR Plan goals.

Second, the Company's proposal weakens commitments agreed to by the Company for the EE and DR Plan that are designed to protect low-income customers when they receive non-transportation electrification measures. For example, ComEd agreed in ICC Docket

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[41] *Commonwealth Edison Co., Approval of the Energy Efficiency and Demand Response Plan Pursuant to Section 8-103B of the Public Utilities Act*, ICC Docket No. 21-0155, Order at 10 (June 24, 2021).
[42] *See Commonwealth Edison Co., Approval of the Energy Efficiency and Demand Response Plan Pursuant to Section 8-103B of the Public Utilities Act*, ICC Docket No. 21-0155, ComEd Ex. 1.01R at 8 (Mar. 1, 2022).

No. 21-0155 that it would not require low-income customers to pay a co-pay for non-transportation electrification measures when they participate in the Company's weatherization program offered as part of ComEd's EE and DR Plan.[43] However, the Company now proposes to create a series of rebates for low-income residential customers to receive non-transportation electrification where ComEd will offset, but not fully cover, the purchase and installation costs of the measure. For example, unlike the stipulated EE and DR Plan, the BE Plan does not include full rebates for high efficiency electric heat pumps, electric lawn equipment, induction/electric cooktops, and electric/heat pump clothes dryers.[44]

Third, the Company's proposal to create separate rebates for the same measures through its BE Plan and EE and DR Plan may create confusion in the market and for program participants. Program participants, and in particular low-income ratepayers, may find it difficult to know what rebates they are eligible for and across which plan. It is important that the Company provide clear enrollment pathways so that low-income consumers looking to install electrification measures are aware that they are often eligible for electrification measures with no contribution on their end.

Q. What is your recommendation?

A. We recommend that the Commission address the myriad of issues created by inclusion of non-transportation electrification measures in the BE Plan by striking all these measures from the plan. In the alternative, the Company should not be permitted to count any of the

[43] *Commonwealth Edison Co., Approval of the Energy Efficiency and Demand Response Plan Pursuant to Section 8-103B of the Public Utilities Act*, ICC Docket No. 21-0155, ComEd Ex. 1.02R at 34 (Mar. 1, 2022).
[44] ComEd Ex. 1.01 at 36–37.

energy savings generated by the BE Plan towards the goals of the EE and DR Plan to avoid skewing the EE and DR Plan stipulation and to avoid increasing ratepayer costs beyond the costs indicated in the BE Plan.

Free Ridership

Q. What concerns did you raise in direct testimony regarding treatment of free ridership within ComEd's benefit-cost analysis?

A. We indicated that the benefits within the benefit-cost analysis ("BCA") are likely overstated because the Company does not account for any free ridership and assumes all electrification adoption is the direct result of the incentives it proposes to offer.[45]

Q. What do you mean by free ridership?

A. As we explained in our direct testimony, free ridership refers to situations whereby participants in a program would have adopted an EV or invested in charging infrastructure even without the existence of the ratepayer-funded incentive.[46] Third-party evaluators utilize free ridership levels when they evaluate whether a utility's energy efficiency program is cost-effective by calculating a "net-to-gross" ratio that measures the portion of participation that would not have occurred but for the program.[47] We asserted in our direct testimony that free ridership is something that ComEd should account for in its BCA analysis because EV adoption, like energy efficiency programs, is driven by a number of factors outside of the existence of the utility incentive.

Q. Did ComEd respond to your concerns?

[45] AG Ex. 1.0R at 39:710–713.
[46] *Id*. at 17:303–315.
[47] *Id.* at 17:306–311.

A. Yes. The Company claims that federal and state clean energy policies “compensate for the environmental value of the action, independent of the (unknowable) question” of free-ridership levels. The Company claims that since the focus here is on “societal benefits, it is not appropriate to look at free ridership.”[48]

The Company claims that determining free ridership for an individual customer is “impossible,” while determining free ridership on average is “extremely difficult, time-consuming, and costly.”[49] Further, the Company claims that the program could influence customer decisions without the customer knowing it.[50]

Q. Does ComEd’s response alleviate your concerns about free ridership?

No. In fact, it exacerbates them. The Company seems to not understand, or perhaps wishes to obfuscate, something very basic: free ridership levels and societal benefits are inversely correlated. In other words, high free ridership levels result in a utility’s program producing minimal societal benefits because the program will not produce benefits in addition to what would have existed without the program. Laws and funding provided by the federal government are provided to create *incremental societal benefits* compared to a business-as-usual baseline. Otherwise, investments would not need to be made. Furthermore, whether federal or state investment is good for society does not dictate whether it is necessary for ComEd to further incentivize the investment. If customers are willing to make the investment without the utility incentive, it is not in the best interest of

[48] ComEd Ex. 7.0 at 130–136.
[49] *Id*. at 7:136–141.
[50] *Id.* at 17:141–146.

ratepayers to over-subsidize these customers for taking an action they would have taken anyway.

Even though ComEd would throw up its hands and claim free ridership is "impossible" to determine and should not be a factor in its BCA analysis, calculation of free ridership levels is done regularly for energy efficiency programs, the purpose of which is to also determine societal benefits. Moreover, as we described in our direct testimony, studies in other jurisdictions have determined free ridership levels for EV rebate programs.[51]

ComEd's response that ascertaining free ridership is "difficult" and "costly" is quite ironic, given that the Company requests $381 million from ratepayers for its BE Plan in this proceeding.[52] Although we are disappointed in ComEd's cavalier and irresponsible response to this critical issue, it is quite revealing for this Commission's evaluation of the Company's proposal. ComEd's response demonstrates an utter lack of concern for determining the actual impact of its programs on achieving societal benefits. Simultaneously, ComEd's requests an annual budget of $100 million for its BE Plan, which is equal to 3.4 percent of its expected 2023 delivery revenue requirement.[53] The effect of this rate increase from the BE Plan, on top of the 7.34 percent increase reflected in the 2023 proposed delivery revenue requirement,[54] shows a casual disregard of the

[51] AG Ex. 1.0R at 18:317–326, 19:335–336.
[52] *Id*. at 57:1012–1019.
[53] *See Commonwealth Edison Company, Annual formula rate update and revenue requirement reconciliation authorized by Section 16-108.5 of the Public Utilities Act*, ICC Docket No. 22-0302, Agreed Proposed Order, App. A, Summary and Sch. 1FY (Oct. 19, 2022). We calculated this figure by taking ComEd's proposed BE Plan spending of $100 million and dividing it by ComEd's 2023 delivery revenue requirement of $2,910,616,000.
[54] *Id.*at Attach. 1 – Summary.

impact of these costs on customers, including the low-income customers they most severely impact.

We fundamentally disagree with the Company that ascertaining free ridership levels is impossible or unduly burdensome. We agree it is a complex topic that requires diligence and rigor to measure—not unlike many other complex issues in the energy policy arena.

Q. Do you have any concerns about free ridership and ComEd's proposed rebates that overlap with state and federal incentives?

A. Yes, we do. One of the main ways that free ridership manifests in EV adoption plans is through recipients taking an incentive, like an EV or charger rebate, even if they would have purchased the EV or charger without the incentive. In rebuttal, the Company continues to propose rebates for measures already incentivized under existing state and federal incentives, as described above. The presence of these existing incentives likely will convince some people to purchase an EV or charger, or pursue other electrification, while the BE Plan incentives will act as an additional windfall. The Company has not attempted to calculate the free ridership associated with these overlapping BE Plan and state/federal incentives, even though $65 million of ComEd's annual BE Plan budget incentivizes measures already incentivized elsewhere.

Q. Do you have any concerns about the BCA test that have arisen since the Company's filing of rebuttal testimony?

A. Yes, we do. While we are not lawyers and do not offer a legal opinion, we understand that since the submission of ComEd's rebuttal testimony that the Commission has issued an Interim Order stating that Company's spending on non-EV infrastructure is not subject to the retail rate impact cap described in Section 627/45(g) of the EVA.[55] This means that ComEd may be able to spend an uncapped amount of money, subject only to the BCA and secondary ratepayer impact analyses, on its BE Plans. Thus, it is critically important that ComEd properly incorporate reasonable estimates of free ridership so that the Commission can determine whether the Company's plan is actually cost-effective under the BCA.

<u>Net Revenue Analysis</u>

Q. Please explain the "net revenue analysis" you conducted and presented in direct testimony.

A. In order to evaluate the financial effects of ComEd's proposal on non-participating ratepayers (*i.e.*, non-EV drivers who do not participate in ComEd's BE Plan), we conducted an analysis to compare the financial benefits of EV charging with the costs of ComEd's BE Plan proposal. As we explained:

> From a financial perspective, non-participants can benefit from "downward pressure on rates" caused by increased load. Essentially, this entails greater ability to spread fixed costs over a larger number of kilowatt hours (in this case due to EV charging). This benefit can be calculated by comparing the "net revenue" of EV charging, defined as the revenue from incremental load less the marginal cost, to the cost of the BE Plan.[56]

We utilized the Ratepayer Impact Measure ("RIM") test as a secondary test in order to assess the financial effects of the BE Plan on non-participants. This was accomplished in two ways. First, we examined the financial benefits of all EVs expected to participate in ComEd's BE Plan program from 2023-2025, including future benefits of these EVs, and

[55] Interim Order at 37–38.
[56] AG Ex 1.0R at 39:727–40:732.

compared these benefits to BE Plan costs. Second, we examined the financial benefits of all EVs expected to be adopted in ComEd's service territory from 2023-2025, including future benefits of these EVs, and compared these benefits to BE Plan costs. As we discussed above, the program benefit values we examined are overstated because they assume no "free ridership" in the BE Plan will occur.[57]

Q. Based on the results of this analysis, what were your conclusions?

A. We found that "analysis of the BE Plan alone shows non-participants will not benefit financially from ComEd's proposal as the costs far outweigh potential benefits on a cumulative and annual basis. Incorporating the benefits of all EV charging in the service territory . . . , the present value cost of the BE Plan through 2038 (representing the life of the vehicles) is slightly less than the present value of new revenue of all cumulative EVs from 2023-2025 . . . . However, when viewed on an annual basis, BE Plan revenue requirements are expected to exceed net revenues from 2026-2029, again calling into question the cost of ComEd's proposal."[58]

Q. How does the Company respond in rebuttal testimony?

A. The Company provides two primary criticisms of our analysis. First, Witness Vogt states that "the AG witnesses conflate and confuse the public interest criterion and the cost-beneficial requirement in an attempt to require yet another analysis that is not contemplated by the EVA."[59] The Company argues, based on its cost-effectiveness

[57] Other assumptions were provided in our workpapers and are described in AG Ex. 1.0R at 40:748–41:753. The discussion in the Free Ridership section describes why the levels of free ridership in ComEd's BE Plan are likely to be significantly higher than this assumption.
[58] AG Ex. 1.0R at 41:754–762.
[59] ComEd Ex. 8.0 at 15:269–271.

analysis results, that "total benefits of the BE Plan outweigh total costs, when a BCA that is aligned with the cost-beneficial requirement outlined in the EVA is applied."[60] Second, ComEd states the analysis "contains technical errors, such as using annual values for the estimated numbers of vehicles that are provided rebates under the BE Plan as the assumed cumulative number of vehicles."[61]

Q. Please address the second criticism first: does the AG's analysis contain technical errors?

A. ComEd is correct that we misinterpreted one of its workpapers and incorrectly input annual values into our analysis where cumulative (*i.e.*, total) values were intended to be used. We provided corrected values in our revised direct testimony to remedy this error.

Q. Did correcting these input values significantly alter the results of your analysis, and thus your conclusions?

A. No. As can be seen in our revised direct testimony, it is still the case that "the cost of ComEd's [ ] BE Plan significantly outweighs potential benefits on both a cumulative and an annual basis,"[62] even assuming no free ridership, which would likely have a significant impact on the RIM analysis. When examining all expected EV charging revenues in ComEd's service territory, these benefits are still "only slightly larger than [the] BE Plan costs on a present value basis,"[63] and "BE Plan revenue requirements are expected to exceed net revenues from 2026–2029, . . . calling into question the cost of

[60] *Id.* at 15:276–278.
[61] *Id*. at 15:283–16:286.
[62] AG Ex. 1.0R at 45:795–797.
[63] *Id.* at 45:797–800.

ComEd's proposal."[64] This leaves our conclusions provided in direct testimony unchanged.

Q. Next, are the Company's arguments describing the EVA valid?

A. While we are not attorneys, we find ComEd's arguments about the proper inputs in the BCA to be highly disingenuous. First, the EVA does not require any specific benefit-cost test but rather lists multiple criteria for the Commission to consider in its evaluation. Second, contrary to ComEd's argument that our analysis "is not contemplated by the EVA," one of the EVA's benefit-cost requirements is to examine "net revenue from all electric charging in the service territory."[65] Third, the EVA *requires* the Commission to consider whether investments and other expenditures in the BE Plan are reasonably expected to provide "rate reductions so that nonparticipants can benefit."[66] ComEd ignores the import of these sections of the EVA to try to demonstrate that its benefit-cost analysis is the *only* basis on which its BE Plan should be assessed in a quantitative fashion, despite the clear emphasis in the EVA on evaluating non-participant financial impacts stemming from the BE Plans. Finally, it is necessary to utilize and calculate the appropriate inputs in the cost-benefit analysis of the BE Plan in light of the Commission's statement in its Interim Order that "[a]ny BE Plan programs approved by the Commission must be cost-beneficial. 20 ILCS 627/45(d). While this is not a rate cap, it is still a restraint on the amount of spending as rates have to be just and reasonable."[67]

[64] *Id.* at 41:760–762.
[65] 20 ILCS 627/45(d) (emphasis added).
[66] *Id*. at 627/45(d)(1).
[67] Interim Order at 38.

Q. Is it your opinion that additional benefits should not be considered by the Commission in its evaluation of ComEd's BE Plan, including "the societal value of reduced carbon emissions and surface-level pollutants?"

A. Absolutely not. In fact, we clearly state in direct testimony that the RIM test "is a helpful <u>secondary analysis</u> because the largest benefits in ComEd's BCA are avoided fuel costs, which do not accrue to non-participants. It is therefore important to determine how non-participants (*i.e.*, non-EV drivers), who are funding the plan, will benefit from the BE Plan."[68] We do not make the argument that the RIM test should be the primary test and the Commission's only consideration, nor do we indicate that it represents the only criterion on which to evaluate the BE Plan. However, ComEd would have the Commission virtually ignore the financial impact of its BE Plan proposal on non-participating ratepayers.

While we agree that EVs provide non-monetary societal benefits in the form of greenhouse gas and pollution emissions reductions, the financial considerations of non-participant ratepayers must be duly considered both as a matter of law and policy.

<u>Regulatory Asset</u>

Q. What was your recommendation regarding ComEd's proposal that a significant portion of its costs be recovered as a regulatory asset?

A. We recommended this aspect of ComEd's proposal be denied, as it is unduly burdensome to ratepayers and is inappropriate for non-capital expenditures.[69]

Q. What was ComEd's response in rebuttal testimony?

[68] AG Ex. 1.0R at 39:719–726 (emphasis added).
[69] *Id.* at 54:971–58:1031.

A. First, ComEd recycled its argument from its direct testimony, stating that since the benefits of EVs "are longer-lived than just one year, a regulatory asset matches the costs borne by customers to the timing of the benefits they receive from BE Plan programs."[70] The Company also argues that if its proposal is rejected that "the total three-year BE Plan budget must be reduced by nearly two-thirds,"[71] from $300 million to $113 million to achieve approximately the same level of estimated up front customer rate or bill impact as the ComEd proposal." Lastly, the Company argues that the "total costs are the same" for a regulatory asset "if the financing costs match the time value of money."[72]

Q. Is the Company correct that regulatory asset treatment matches the benefits of its programs with cost recovery?

A. This is an erroneous argument that serves only to further the Company's interest in reaping profit for its shareholders. As we explained in our direct testimony, "a rebate is expensed in the *short-term* to offset *short-term expenses*. And unlike assets that the Company owns and maintains, ComEd will have no ownership or actual control over the EVs or charging infrastructure owned by customers who take advantage of the rebates."[73] Additionally, this argument bears no resemblance to traditional utility accounting principles for recurring expenditures, such as postage or insurance expenses. These costs are not segregated from the utility budget to create a regulatory asset. Since recurring expenses that do not extend the life of utility plant do not represent a new capital

[70] ComEd Ex. 9.0 at 10:184–11:186.
[71] *Id.* at 10:173–176.
[72] *Id*. at 12:226–13:230.
[73] AG Ex. 1.0R at 56:1004–1009.

investment, they are treated as an expense and, under traditional ratemaking practices, recovered from ratepayers in the year expended without a return.

Q. Will the Commission have to reduce ComEd's BE Plan budget if regulatory asset treatment is not granted?

A. We are advised by our attorneys that the BE Plan should be reduced, regardless of whether the regulatory asset treatment is granted, in order to comply with the EVA and the Commission's Interim Order. Aside from the legal issue of how to define the retail rate impact or rate cap, a lower budget is necessary for this program to be in the ratepayer interest, as explained in our direct testimony and herein. ComEd's general descriptions of customer benefits, which cannot be supported with program data because these are new proposals, are insufficient to support such a large request. We recommend the Commission move with caution in its approval of this first BE Plan, to allow for data collection and program evaluation before any large-scale expenditures are approved without sufficient evidence.

In addition, the Commission has other, lower cost options for how costs can be amortized if it wishes to proceed with this approach. For example, utilizing the cost of long-term treasuries as the basis of a return, or other adjustments, may be appropriate, as described by Staff Witness McNally.[74]

Q. Is it true that additional costs for regulatory assets over time "are the same" as upfront expenses "if the financing costs match the time value of money?"

[74] Staff Ex. 8.0 (REV.) at 5:107–6:131.

A. This is theoretically true if wage increases, which are the best proxy for the "time value of money" for residential ratepayers, are equal to or greater than the Company's weighted average cost of capital ("WACC") of 5.72 percent[75] *over the next ten years*. This is highly unlikely to occur, as discussed further below. It also ignores the fact that residential ratepayers experience different levels of wage increases (including decreases) depending on their occupation and location, such that some lucky few may indeed be neutral to regulatory asset treatment while the unlucky many will not. In particular, low-income, unemployed, and elderly residents are even less likely to see sufficiently high wage or other income increases for the next ten years to be theoretically neutral to ComEd's regulatory asset treatment.[76] Due to this, the already highly regressive nature of utility bills will be further exacerbated.

Between 2000 and 2021, a period of twenty-two years, the median income in Illinois increased by more than the Company's current WACC in just <u>six</u> of these years, in comparison to sixteen years when wage increases were less than the WACC. In four of these years, median incomes *decreased* from the year before.[77] The majority of residential ratepayers, based on this historical perspective, are likely to experience significant bill *increases* if ComEd's proposal is adopted when accounting for "the time value of money," thus imposing undue burdens particularly on low- and middle-income residents and families.

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[75] *Id.* at 2:26–29.
[76] Pew Research Center, *Trends in income and wealth inequality*, https://www.pewresearch.org/social-trends/2020/01/09/trends-in-income-and-wealth-inequality/.
[77] St. Louis Fed Economic data, *Median Household Income in Illinois (Current Dollars)*, https://fred.stlouisfed.org/series/MEHOINUSILA646N.

Q. Does this conclude your testimony?

A. Yes, it does.