STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Commonwealth Edison Company	:	
	:	**Docket No. 22-0432**
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.	:	**(cons.)**
	:	
Illinois Commerce Commission On Its Own Motion	:	
-vs-	:	
Commonwealth Edison Company	:	**Docket No. 22-0442**
	:	
Investigation into Commonwealth Edison Company Beneficial Electrification Plan Filing pursuant to 20 ILCS 627/45.	:	

INITIAL BRIEF
OF
NATURAL RESOURCES DEFENSE COUNCIL, ENVIRONMENTAL DEFENSE FUND, SIERRA CLUB, RESPIRATORY HEALTH ASSOCIATION, AND LITTLE VILLAGE ENVIRONMENTAL JUSTICE ORGANIZATION

January 4, 2023

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Natural Resources Defense Council ("NRDC"), Environmental Defense Fund ("EDF"), Sierra Club, Respiratory Health Association ("RHA"), and Little Village Environmental Justice Organization ("LVEJO") (collectively, "Clean Jobs Coalition Parties"), pursuant to the Rules of Practice of the Illinois Commerce Commission ("ICC" or "Commission"), 83 Ill. Admin. Code Part 200.800, and the briefing schedule established by the Administrative Law Judge ("ALJ"), hereby file their Initial Brief in the above-captioned consolidated proceeding. In this proceeding, the Illinois Commerce Commission ("Commission" or "ICC") will evaluate the proposed Beneficial Electrification Plan ("BE Plan") for Commonwealth Edison Company ("ComEd" or

"the Company") pursuant to Section 45 of the Electric Vehicle Act (20 ILCS 627/45) ("EV Act"), as amended in the Climate and Equitable Jobs Act ("CEJA"), P.A. 102-0662.

As further discussed in Section IV, the following should be taken into consideration by the Commission:

- **Medium- and heavy-duty vehicles need electrification support now.** This sector offers the greatest pollution reduction benefits and has some of the most powerful potential to remedy environmental injustices. EDF Ex. 1.0 REV at 5-6:78-88.
- **Recognize that charging customers have unique needs.** Customers who will be using the electric grid to fuel vehicles can be distinguished from other customers by the speed with which their new load can materialize and, in the case of commercial fleets, their relative inexperience with the complexities of being large commercial electricity customers. EDF Ex. 1.0 REV at 8-10:143-185.
- **Focus on customer education and outreach.** Utilities, in collaboration with various local organizations and businesses, should develop targeted educational materials to help disseminate information to potential EV purchasers, including private truck fleets. EDF Ex. 1.0 REV at 10-11:185-191.
- **Actively plan for effective load management.** Without effective load management, the resulting impact of new load will be higher than necessary, and ComEd ratepayers will pay for the resulting overbuild.
- **For the best results, vehicle electrification should be co-optimized with other changes that are coming to the electric system.** Other resources such as storage

can be combined with vehicle charging to improve vehicle-grid integration ("VGI").

- **Consistent, regular data collection is critical.** To ensure that ComEd's efforts do not fall out of step with vehicle electrification trends in its territory, ComEd should be collecting data on key items.

With the proposed modifications provided by the Clean Jobs Coalition Parties, the Commission should approve ComEd's BE Plan.

I. INTRODUCTION

As the General Assembly recognized by its passage of amendments to the EV Act, as part of CEJA, transitioning to electric vehicles ("EVs") is both necessary and appropriate for Illinois to do its part in confronting the global climate crisis and protecting the health of the state's citizens. 20 ILCS 627/45(a). As in other states and nationwide, transportation is responsible for the most climate-change-causing and health-harming pollution of any sector in the state. Indeed, CEJA recognizes the tremendous emissions burden caused by transportation stating, in turn, that "widespread adoption of electric vehicles is necessary to…protect air quality," 20 ILCS 627/45(a)(3), and "widespread adoption of electric vehicles requires increasing public access to charging equipment throughout Illinois, especially in low-income and environmental justice communities, where levels of air pollution burden tend to be higher," 20 ILCS 627/45(a)(7). The emissions impact of fossil-fueled transportation is not felt evenly – the communities that are near highways, freight corridors, and industrial facilities like intermodals, warehouses, and distribution centers, bear the brunt of this harmful pollution. Responsibility for this pollution is also not shared evenly throughout the fossil-fueled vehicle sector; rather, diesel trucks and buses are responsible for a disproportionate share of emissions relative to their population. Despite

only making up 7% of on-road vehicles in Illinois, they are responsible for 36% of greenhouse gas emissions, 59% of particulate matter, and 67% of nitrogen oxides from all on-road transportation. EDF Ex. 1.0 REV at 5-6:78-82.

The market for EVs is growing substantially. Total EV sales in the second quarter of 2022 were 14% higher than any previous calendar quarter. NRDC Ex. 2.0 REV at 4:69-73. This growth is due in no small part to public utility financial support. Electric utilities strongly support transportation electrification through their investment, with $3.55 billion invested to date and an additional $2.9 billion pending regulatory approval. NRDC Ex. 2.0 REV at 5:74-78. Having utilities play a role in electrification makes good sense for ratepayers; as other states and industry studies have found, with appropriate rate structures and customer incentives, transportation electrification can put downward pressure on electric rates, to the benefit of all ratepayers. NRDC Ex. 2.0 REV at 10-14.

As further explained in this Initial Brief, the BE Plan that ComEd has presented for the Commission's consideration makes progress on several key policy considerations described in Section IV, but still contains significant gaps. As a result, it does not do enough to lay the foundation for significant future electrification and presents a risk of misusing ratepayer funding on programs that are unlikely to achieve their stated purposes, creating conditions that may further hinder vehicle electrification in the future. Important modifications need to be made, but if the recommendations from the Clean Jobs Coalition Parties are integrated, the ICC should approve ComEd's BE Plan.

II. FACTUAL AND PROCEDURAL BACKGROUND

A. THE PARTIES

In addition to the petitioner, ComEd, the following parties have joined this proceeding as intervenors: the Citizens Utility Board, Natural Resources Defense Council, ChargePoint, Inc.,

Electrify America, LLC, Environmental Defense Fund, the Environmental Law and Policy Center, EVgo Services LLC, LVEJO, Walmart Inc., Respiratory Health Association, FreeWire Technologies, Illinois Competitive Energy Association, Sierra Club, the Illinois Environmental Protection Agency, the Illinois Attorney General's Office, and the Illinois Industrial Energy Consumers.

The following parties have collaborated on testimony and jointly submit this brief: EDF and NRDC (both international nonprofit environmental advocacy groups), Sierra Club, a national nonprofit environmental advocacy group, RHA, an Illinois-based nonprofit public health advocacy group, and LVEJO, an Illinois-based environmental justice and community advocate.[1] These parties will collectively be referenced in this brief as "Clean Jobs Coalition Parties."

B. PROCEDURAL HISTORY

Section 45(c) of the EV Act requires that the Commission initiate a workshop process no later than November 30, 2021, for the purpose of soliciting stakeholder input on beneficial electrification program design. 20 ILCS 627/45(c). The Commission, under the facilitation of a coordinator hired as a consultant, initiated a workshop process on November 3, 2021, to solicit input from stakeholders on beneficial electrification program design. Ten workshops, including two equity-focused sessions, were held between the initiation of the process and February 28, 2022. Workshops included stakeholders from environmental justice communities, companies, nonprofit organizations, community-based organizations, utility representatives, electric vehicle and charging infrastructure vendors, educational institutions, and those interested in transportation electrification, covering topics on fleets, school buses and public transit, workforce development, equity, residential considerations, and charging infrastructure. Interested

[1] LVEJO also submitted a separate opening brief.

stakeholders and participants, including Clean Jobs Coalition Parties, provided feedback after each workshop based on prompts and questions from the workshop coordinator.

Following the conclusion of the beneficial electrification workshop process, the EV Act required the staff of the Commission ("Staff" or "Commission Staff") to prepare a report of recommendations for investment or incentives in areas specified in the statute. 20 ILCS 627/45(c)(i)-(v). The Staff Report, released March 30, 2022, summarized feedback and ideas received from workshop participants, incorporated appendices consisting of participants' actual contributions, and provided Staff recommendations for utilities to consider "where practicable while also focusing on ensuring a seamless customer experience, attempting to minimize confusion in the market, and reducing barriers to electric vehicle adoption." ICC BE Workshops Staff Report at 34.

Following the issuance of the report, ComEd, pursuant to 20 ILCS 627/45(d), filed its Petition for Approval of Beneficial Electrification Plan on June 30, accompanied by direct testimony and exhibits of five witnesses. The proceeding initiated by ComEd's Petition was assigned Docket No. 22-0432. On July 7, 2022, as required by CEJA's amendments to the EV Act (Section 45(d)), the Commission issued an Order Initiating Proceeding, in which the Commission is to consider whether the plan serves the public interest and is cost beneficial, and including whether the plan meets the objectives and contains the information required by EV Act Section 45(d). This proceeding was assigned Docket No. 22-0442, and the two dockets were consolidated. In its originally proposed BE Plan, ComEd include five programs – a residential program, a commercial and industrial public sector program, a customer education and awareness program, a beneficial electrification pilot program, and a portfolio of smaller scale pilots designed to support the BE Plan. ComEd Verified Petition at 3. ComEd stated that its

overarching intent was to "invest $100 million dollars per year in each of the next three years towards measures that will improve access to BE technology, promote equity and environmental justice, and reduce carbon and criteria air surface-level pollution throughout northern Illinois." ComEd Verified Petition at 3.

A pre-hearing conference was held and a schedule was set on August 2. On September 2, Commission Staff filed a Combined Motion to Dismiss and Motion for Interim Order, with responses filed on September 16 by Weave Grid, Inc., ChargePoint, Inc., Clean Jobs Coalition Parties, Advanced Energy Economy, the Illinois Attorney General's Office, Citizens Utility Board, and ComEd. Clean Jobs Coalition Parties submitted Direct Testimony on September 22, alongside Electrify America, LLC, WeaveGrid, Inc., EVgo Services LLC, Commission Staff, the Illinois Attorney General's Office, The Building Owners and Managers Association of Chicago, Tesla, Inc., FLO Services USA, Inc., the Chicago Transit Authority, ChargePoint, Inc., the Illinois Competitive Energy Association, Walmart Inc., the Little Village Environmental Justice Organization, and Advanced Energy Economy. Responses to the Motion to Dismiss and Motion for Interim Order were filed on September 23 by ComEd, Clean Jobs Coalition Parties, the Illinois Attorney General's Office, Commission Staff, and the City of Chicago. A Proposed Interim Order was issued by ALJ Jorgenson on October 18. ComEd submitted Rebuttal Testimony on October 20, followed on November 16 by Rebuttal Testimony from Clean Jobs Coalition Parties, Little Village Environmental Justice Organization, FLO Services USA, Inc., Walmart Inc., The Building Owners and Managers Association of Chicago, the Illinois Competitive Energy Association, Weave Grid, Inc., Advanced Energy Economy, the Chicago Transit Authority, the Illinois Industrial Energy Consumers, EVgo Services LLC, Commission Staff, ChargePoint, Inc., Electrify America, the Illinois Attorney General's Office, and Tesla,

Inc. The Commission adopted its Interim Order on the Combined Motion to Dismiss and Motion for Interim Order on November 10, 2022. ComEd submitted Surrebuttal Testimony on November 29. An evidentiary hearing was held on December 7, at which all parties with the exception of the Chicago Transit Authority waived witness cross-examination and the filed testimony and exhibits were admitted into the record.

III. LEGAL STANDARDS

On September 15, 2021, Illinois Governor J.B. Pritzker signed into law the Climate and Equitable Jobs Act (CEJA), an historic act to address reliance on fossil fuels, transportation pollution, and equitable access to vehicle electrification. CEJA amends the EV Act in various respects, including adding a new Section 45 (Beneficial Electrification), which creates a process that is to culminate in utilities establishing Beneficial Electrification programs. The General Assembly's stated intent in Section 45 is to "decrease reliance on fossil fuels, reduce pollution from the transportation sector, increase access to electrification for all consumers, and ensure that electric vehicle adoption and increased electricity usage and demand do not place significant additional burdens on the electric system and create benefits for Illinois residents." 20 ILCS 627/45(a).

Beneficial electrification programs are those that "lower carbon dioxide emissions, replace fossil fuel use, create cost savings, improve electric grid operations, reduce increases to peak demand, improve electric usage load shape, and align electric usage with times of renewable generation." 20 ILCS 627/45(b). All such programs "shall provide for incentives such that customers are induced to use electricity at times of low overall system usage or at times when generation from renewable energy sources is high." 20 ILCS 627/45(b). These programs "include a portfolio of the following:

(1) time-of use-electric rates;

(2) hourly pricing electric rates;

(3) optimized charging programs or programs that encourage charging at times beneficial to the electric grid;

(4) optimal demand-response programs specifically related to electrification efforts;

(5) incentives for electrification and associated infrastructure tied to using electricity at off-peak times;

(6) incentives for electrification and associated infrastructure targeted to medium-duty and heavy-duty vehicles used by transit agencies;

(7) incentives for electrification and associated infrastructure targeted to school buses;

(8) incentives for electrification and associated infrastructure for medium-duty and heavy-duty government and private fleet vehicles;

(9) low-income programs that provide access to electric vehicles for communities where car ownership or new car ownership is not common;

(10) incentives for electrification in eligible communities;

(11) incentives or programs to enable quicker adoption of electric vehicles by developing public charging stations in dense areas, workplaces, and low-income communities;

(12) incentives or programs to develop electric vehicle infrastructure that minimizes range anxiety, filling the gaps in deployment, particularly in rural areas and along highway corridors;

(13) incentives to encourage the development of electrification and renewable energy generation in close proximity in order to reduce grid congestion;

(14) offer support to low-income communities who are experiencing financial and accessibility barriers such that electric vehicle ownership is not an option; and

(15) other such programs as defined by the Commission." 20 ILCS 627/45(b).

Section 45(c) calls for the Commission to conduct a workshop process "for the purpose of soliciting input on the design of beneficial electrification programs that the utility shall offer" and for Staff of the Commission to "prepare and submit a report," 20 ILCS 627/45(c), after which Section 45(d) requires utilities serving greater than 500,000 customers (*i.e.*, Commonwealth Edison Company and Ameren Illinois Company) to file a BE Plan with the Commission by July 1, 2022 that "takes into consideration recommendations from the workshop report," 20 ILCS 627/45(d). The Commission is then required to investigate whether the plan meets the objectives outlined in the EV Act, contains the information required, is cost-effective, and is in the public interest. 20 ILCS 627/45(d).

Section 45(d) of the EV Act states in part that "[t]he Commission shall determine if the proposed plan is cost-beneficial and in the public interest" and that "[t]he Commission may approve the plan if it finds that the plan will achieve the goals described in this Section and contains the information described in this Section." 20 ILCS 627/45(d). As such, a mere recitation of the minimum requirements of the statute, unaccompanied by a substantive proposal that is cost-beneficial, in the public interest, and "will achieve the goals described in [Section 45]," is insufficient by itself to justify approval. 20 ILCS 627/45(d). The BE Plan shall specifically address, at a minimum, the components set forth in Section 45(d)(i) though section 45(d)(x).

In evaluating whether a particular BE Plan is cost-effective and in the public interest, it is important to note that such a determination is predicated not on evaluation of each particular program within a BE Plan, but rather an evaluation of the BE Plan as a whole. A plan is cost-beneficial "if the total cost of beneficial electrification expenditures is less than the net present

value of increased electricity costs (defined as marginal avoided energy, avoided capacity, and avoided transmission and distribution system costs) avoided by programs under the plan, the net present value of reductions in other customer energy costs, net revenue from all electric charging in the service territory, and the societal value of reduced carbon emissions and surface-level pollutants, particularly in environmental justice communities." 20 ILCS 627/45(d). Cost and benefit calculations are based on net impacts. 20 ILCS 627/45(d).

To determine whether a BE Plan is in the public interest, "the Commission shall consider whether the investments and expenditures are designed and reasonably expected to" accomplish the targets and goals set forth in Sections 45(d)(1)-(8). 20 ILCS 627/45(d). Pursuant to the statutory framework, the Commission is not permitted to evaluate BE Plans' cost-effectiveness and achievement of goals in a vacuum. In addition to the specific subsections of 45(d) that lay out minimum requirements and provide guidance as to what is in the public interest, Section 45(c) requires that the Commission be guided additionally by learnings from the workshop, stating that the report "shall be used by the Commission to inform and evaluate the cost effectiveness and achievement of goals within the submitted Beneficial Electrification Plans." 20 ILCS 627/45(c).

IV. POLICY CONSIDERATIONS

The BE Plan proposed by ComEd at issue here could play a fundamental role in ensuring a transition to zero-emission vehicles; if it provided structural support for electric vehicles ("EVs"), ComEd could help provide market certainty and ensure that there is a strong basis from which to see continued uptake of EVs and corresponding reductions in air emissions. But if ComEd is to obtain desired results in an equitable fashion while making optimal use of ratepayer funds, its proposed BE Plan must be improved. ComEd will need to avoid unnecessary missteps

by incorporating lessons learned from electrification efforts that are well underway in other regions. Key learnings include, inter alia:

- **Medium- and heavy-duty vehicles need electrification support now.** This sector offers the greatest pollution reduction benefits and has some of the most powerful potential to remedy environmental injustices. EDF Ex. 1.0 REV at 5-6:78-88. The fact that the medium and heavy duty ("MHDV") EV sector is less mature than the passenger vehicle EV sector makes utility support all the more critical. EDF Ex. 1.0 REV at 8:124-140. In addition, because many MHDVs do not use public charging, they will not be able to take advantage of Illinois Environmental Protection Agency ("IEPA") rebates for charging stations, making an emphasis on these vehicles in utility programs all the important. Finally, it is critical to note that one of the most important means of ensuring equitable benefit in EJ and R3 communities is to electrify MHDVs. Because many lower-income individuals do not have access to personal vehicles, ensuring that they have a sustainable method of transit is critical; as well, electrifying the trucks and buses that ride through pollution-burdened communities is an imperative part of what utilities should be seeking to accomplish.
- **Recognize that charging customers have unique needs.** Customers who will be using the electric grid to fuel vehicles can be distinguished from other customers by the speed with which their new load can materialize and, in the case of commercial fleets, their relative inexperience with the complexities of being large commercial electricity customers. EDF Ex. 1.0 REV at 8-10:143-185. Also, as a specific example, low-income, "unbanked" customers require public charger payment equipment and methods to make it practical for that customer segment to help boost EV adaptation. NRDC Ex. 2.0 REV at

49:806-814. Unless utilities devote resources to understanding their actual needs, utility programs are unlikely to meet those needs efficiently and effectively.

- **Focus on customer education and outreach.** Many customers who are likely candidates for electrification may know a lot less about electrification than utilities do. Utilities, in collaboration with various local organizations and businesses, should develop targeted educational materials to help disseminate information to potential EV purchasers, including private truck fleets. EDF Ex. 1.0 REV at 10-11:185-191. Outreach must be designed with and facilitated by impacted communities and their representatives to ensure that key information is disseminated in a way that furthers equitable deployment of infrastructure, and ultimately vehicles.
- **Actively plan for effective load management.** While the number of EVs on the road in the ComEd service territory is currently small, state and federal policies suggest that it will grow rapidly; indeed, this is borne out by experience – utility policies and programs aimed at spurring market development in states like California have resulted in significant growth in EV deployments. Without effective load management, the resulting impact of new load will be higher than necessary, and ComEd ratepayers will pay for the resulting overbuild. Rather than wait for EV adoption to cause negative grid impacts to the grid before taking action, ComEd should undertake market potential analyses now to determine proactively when and how much anticipated demand growth will be coming onto the grid to ensure that the grid will be able to accommodate the increased charging load reliably and cost-effectively, EDF Ex. 1.0 REV at 21:461-465; NRDC Ex. 1.0 REV at 27:504-506, as well as develop a comprehensive EV rate design and load management plan, NRDC Ex. 1.0 REV at 27-28:516-526. These analyses should then feed directly

into pilots and programs that incentivize the use of software and hardware solutions referred to as automated load management ("ALM") and EV energy management systems ("EV EMS"). NRDC Ex. 1.0 REV at 28-31:530-591; EDF Ex. 1.0 REV at 16:344-353. Experience in other jurisdictions teaches that grid impact can be mitigated through proactive collection of data relevant to load growth and integration, and programs and rate designs that incentivize efficient grid use by charging customers.

- **For the best results, vehicle electrification should be co-optimized with other changes that are coming to the electric system.** Vehicle electrification need not compete against storage and renewable energy resources for funding. Rather, at a given customer location, other resources such as storage can be combined with vehicle charging to improve VGI, and at the scale of the grid itself, flexible charging needs can be leveraged as a virtual storage resource at very low cost. Managed charging programs designed to affect customer EV charging behavior can further unlock the flexibility of EV load. NRDC Ex. 1.0 REV at 8-10:145-187. Optimal vehicle electrification programs and rate designs must support customers leveraging these opportunities. EDF Ex. 1.0 REV at 6-7:95-122.
- **Consistent, regular data collection is critical.** To ensure that ComEd's efforts do not fall out of step with vehicle electrification trends in its territory, ComEd should be collecting data on such items as the rate of deployment of EV infrastructure associated with programs, the extent to which charging load is being optimized to coincide with periods of low-cost times and high renewable energy availability, the use and effectiveness of incentives to facilitate VGI capabilities, and the potential and realized cost savings associated with these programs. EDF Ex. 1.2 at 12-18. As well, data should

be reported in a publicly available format such that stakeholders can have access to provide feedback on this collected data. EDF Ex. 1.0 REV at 36:756-759.

V. COMED'S BE PLAN

A. BE PLAN PROGRAMS

1. Residential Program

a. Residential EV Purchase Sub-Program

b. Residential EV Charging Infrastructure Sub-program

c. Residential BE Technology Adoption Sub-program

d. Residential BE Infrastructure Readiness Sub-program

2. C&I and Public Sector Program

a. C&I and Public Sector EV Purchase Sub-program

ComEd's proposed commercial and industrial ("C&I") and Public Sector EV Purchase Sub-program would provide rebates ranging from $5,000 to $180,000 to C&I customers for the purchase of commercial EVs in vehicle classes one through eight. ComEd Ex. 1.01 at 36. The total budget of this program would be $50 million annually, ComEd Ex. 1.01 at 36; ComEd Ex. 12.0 REV at 3:54-58—a significant portion of ComEd's proposed budget. Such rebates would reduce the total cost of ownership ("TCO") of new EVs as well as help overcome the upfront cost barrier resulting from the purchase price of EVs, which remain high compared to their gas- and diesel-powered equivalents. This funding for vehicles, however, far outpaces what ComEd is proposing to support the deployment of make-ready infrastructure for these vehicles – another upfront cost of electrification. As discussed in detail in the following section, utility support in providing make-ready infrastructure similarly overcomes an upfront cost barrier and improves the TCO of commercial EVs. The relative paucity of make-ready support to ensure successful

deployment of charging infrastructure in the C&I sector risks undermining the intended impact of the vehicle rebates sub-program, since EVs without adequate access to charging are of no use anyway.

b. C&I and Public Sector EJ/R3 EV Charging Infrastructure Sub-program

Section 45(d)(i) of the EV Act states that a utility BE Plan must address "make-ready investments to facilitate the rapid deployment of charging equipment throughout the State, facilitate the electrification of public transit and other vehicle fleets in the light-duty, medium-duty, and heavy-duty sectors, and align with Agency-issued rebates for charging equipment." 20 ILCS 627/45(d)(i).

ComEd's proposed C&I and Public Sector EJ/R3 EV Charging Infrastructure Sub-program would provide rebates to public-sector entities, multi-unit dwellings, and publicly available charging stations located in or serving EJ or R3 communities. ComEd Ex. 1.01 at 37-38; ComEd Ex. 7.0 at 22:449-453. Rebates would be up to $8,000 per port for level 2 chargers, and $1,000 per kW for DCFC chargers. ComEd Ex. 1.01 at 37. Rebates would be limited to ten level 2 ports per customer per year, or $500,000 per customer for DCFC charging per year. ComEd Ex. 1.01 at 37. Although such limitations are stated in terms of ports, the rebates could only be used for make-ready work, not the charging station itself. ComEd Ex. 12.0 REV at 4:66-70.

Make-ready infrastructure is a necessary component of EV charging infrastructure and can make up a significant portion of infrastructure costs for a commercial charging customer. EDF Ex. 1.0 REV at 13:237-239. Given this, the proposed rebates for make-ready infrastructure would be a valuable tool for those eligible customer segments. But the proposal includes several flaws that may significantly limit the impact of the sub-program, namely the exclusion of private

fleets, the limitation of only supporting customers located or operating in EJ and R3 communities, and the failure to ensure MHDV fleets will benefit from the program. EDF Ex. 1.0 REV at 11-12:215-221. A certain amount of focus on private medium- and heavy-duty fleets is made all the more important by the fact that the Illinois Environmental Protection Agency ("IEPA") rebate for vehicles and charging stations is designed to accommodate light-duty vehicles and public chargers, respectively, if the IEPA charger rebate currently being finalized does not change. This means that many MHDVs, including public transit and school buses that charge at private sites will not be eligible for IEPA rebates and will not have an alternative through this proposal. EDF Ex. 2.0 at 5:61-65.

First, ComEd's failure to make private fleets relying on depot charging eligible any of the funding in this sub-program is a serious omission. MHDVs have distinct charging needs as compared to light-duty vehicles—including both higher power needs and diverse operational profiles—which means most electric trucks and buses will rely primarily or exclusively on charging infrastructure at non-publicly accessible depots for their charging needs. EDF Ex. 1.0 REV at 8-9:143-156. This is particularly true in the near term, as the earliest electrifying fleets are more likely to be fleets with local or regional operational profiles that involve returning to depots to charge overnight, rather than long-haul operators that rely on enroute charging. Despite this, the only depot charging supported by this sub-program is for public-sector entities such as schools, transit agencies, and other government fleets. ComEd Ex. 2.0 at 28:514-515. Given the significant pollution and climate burden caused by these vehicles, EDF Ex. 1.0 REV at 5-6:78-82, the failure to include private MHDVs in this program fails to adequately account for the deep reductions that will be needed in order to protect the health of the environment and Illinoisans disproportionately impacted by freight emissions.

Second, by limiting access to this sub-program to those public-sector entities and publicly accessible charging stations "located in or primarily serving EJ or R3 communities," ComEd Ex. 2.0 at 28:515-516, ComEd's proposal fails to recognize the value of emissions reductions outside of these communities, and the indifference that vehicle emissions (particularly greenhouse gas emissions) have with respect to geographic boundaries. The Clean Jobs Coalition Parties fully support prioritizing deployment in these communities. But this prioritization should take the form of higher incentives and a dedicated budget set-aside for charging stations in or serving these communities, rather than a wholesale exclusion of those charging customers not falling into those categories. EDF Ex. 2.0 at 7:95-104. ComEd's proposal also risks creating incentive cliffs, where a small change in a charging station's usage could create large changes in incentive eligibility. ComEd witness Erica Borggren states that a charging station would be deemed to be primarily serving an EJ/R3 community "if the applicant demonstrates that over 50% of the driving done by the vehicles to be served by the charging infrastructure will be in EJ/R3 communities." ComEd Ex. 12.0 REV at 18:340-343. This may mean that a public-sector fleet with 50% of its driving in EJ/R3 communities, or that uses a particular charging station in an EJ/R3 community, could be eligible for up to $500,000 per year for make-ready, while a similar fleet with 49% of its driving in those communities is completely ineligible for that support. In addition, this creates a significant administrative burden, particularly for smaller fleets. Having to prove in advance and with a high degree of certainty where vehicles are traveling and charging might result in a barrier to EV adoption without a clear benefit. ComEd's requirement, assuming Clean Jobs Coalition Parties have interpreted it correctly, would be both arbitrary and administratively burdensome.

Third, the sub-program as proposed does not guarantee that any funding would actually be dedicated to MHDVs. Because the program is open to "[a]ll such customers taking delivery service from ComEd," ComEd Ex. 2.0 at 28:516-517, the $10 million budget could be entirely used up by public charging stations serving light-duty vehicles, with no money available for MHDVs. This outcome would not be consistent with addressing "make-ready investments" to "facilitate the electrification of public transit and other vehicle fleets in the light-duty, medium-duty, and heavy-duty sectors" as directed by the EV Act. 20 ILCS 627/45(d)(i).

Even if the Commission were to approve ComEd's proposed EV charging delivery classes or its alternative proposal, discussed in greater detail below in Section VII.A, the BE Plan itself would still need to be strengthened to provide adequate support for make-ready investments – given that the delivery classes are outside the confines of what is at issue within ComEd's BE Plan – and address the serious limitations of this sub-program. The EV Act requires the BE Plan itself to address such make-ready investments, 20 ILCS 627/45(d)(i), and the Company has stated that the charging class proposals "are independent of the BE Plan" and "must be adopted as rates, not as part of the BE Plan." ComEd Ex. 10.0 at 6:113-116. Therefore, approval of those proposed delivery classes cannot be used to satisfy the requirements of Section 45(d) of the EV Act. ComEd could address these shortcomings of the C&I and Public Sector EJ/R3 EV Charging Infrastructure Sub-program by expanding eligibility criteria to include private fleets and fleets located and operating outside of EJ/R3 communities, while guaranteeing a portion of the sub-program budget for MHDVs, and a set portion of the budget and higher incentives for fleets located or operating in EJ/R3 communities.

Another concern with this sub-program has to do with EV driver payment methods that can be accepted at public charging stations. The permissible payment methods that EV drivers

can use to charge at public charging stations were not addressed. Clean Jobs Coalition Parties witness Max Baumhefner noted that, in its proposed BE Plan, ComEd stated that it supports accessibility and ease of payment for all charging infrastructure its customers will use, but that this is its first BE Plan situated in a "developing ecosystem." ComEd should be able to rely on real-world experience over the last twelve years in the U.S EV market. As Mr. Baumhefner put it, "Drivers should be able to pay for charging as easily as the can buy gasoline." NRDC Ex. 2.0 REV at 44:715-721. After an extensive public process in California, in 2019 the California Air Resources Board ("CARB") put in place standards that require Euro MasterCard Visa ("EMV") chip card readers at all public charging stations that can accept credit, debit and cash cards. EMV chip is the most secure and dominant payment technology upon which consumers rely; contactless card payments constitute a small percentage of in-person payments. NRDC Ex. 2.0 REV at 45-47:715-760. Many individuals who live in EJ/R3 communities, where ComEd has targeted publicly-accessible charging stations, will not be able to use those charging stations without payment standards that will accommodate their payment methods. Many such individuals are low income, unbanked or underbanked. As Mr. Baumhefner stated, unbanked individuals pay for gas, or charging, with either cash or prepaid cash cards. NRDC Ex. 2.0 REV at 48:780-793. ComEd's plan will not require a payment option that comports with the preferred payment method of nearly one-quarter of all drivers, and a much larger portion of unbanked drivers. Given the obvious difficulty of using cash to pay for EV charging, prepaid cash cards are the remaining viable alternative to meet the needs of most unbanked drivers. Such cards require EMV chip readers because most prepaid debit cards lack contactless capability and are not compatible with Apple Pay or Google Pay mobile wallets. NRDC Ex. 2.0 REV at 48-49:794-805. ComEd should be required to adopt minimum payment standards for public charging

stations that will serve the needs of unbanked individuals, which will align with CEJA equity goals and with current standards for public charging stations in half the U.S. market. NRDC Ex. 2.0 REV at 49:806-814. Specifically, ComEd should adopt payment requirement language that requires qualifying installations to have credit card capability that at a minimum includes a card reader device physically located on either the EVSE or kiosk that accepts the EMV chip and contactless payment from major debit and credit cards. NRDC Ex. 2.0 REV at 50:833-838.

c. C&I and Public Sector BE Technology Adoption Sub-program

d. C&I and BE Infrastructure Readiness Sub-program

3. Customer Education and Awareness Program

Section 45(d)(x) of the EV Act states that a BE Plan is required to address "customer education, outreach, and incentive programs that increase awareness of the programs and the benefits of transportation electrification, including direct outreach to eligible communities." 20 ILCS 627/45(d)(x). ComEd's original filing contemplates that its customer education and awareness activities would include distributing information on the benefits of electrification and providing technical assistance to customers. Within its customer education and awareness plan, ComEd has expressed an intention to expand its residential electrification toolkit to fleets – a "web-based resource that allows potential EV fleet adopters to estimate vehicle costs and savings, explore charging options, learn about the pros and cons of EVs, discover rate options, and more." ComEd Ex. 2.0 at 36:671-673. In addition, ComEd expressed an intention to offer fleet assessment services that "will make available third-party electrification feasibility assessments for C&I [commercial and industrial] customers...[in which] a third-party vendor will work with eligible customers to collect, evaluate, and analyze fleet operations data and provide

an assessment of the customer's electrification opportunity, costs, and benefits." ComEd Ex. 2.0 at 35:651-654.

In responding to ComEd's initial depiction of its customer, education, and awareness plan, Clean Jobs Coalition Parties pointed out that ComEd's intentions for the breadth of interaction with customers was appropriate, but that many details still needed to be worked out. EDF Ex. 1.0 REV at 34:710-711. In particular, it was noted that development of the critically important Fleet Electrification Toolkit had not yet commenced, and that there were no specific marketing plans for targeting low-income customers and customers in EJ and R3 communities. EDF Ex. 1.0 REV at 34:712-714. Other intervenors concurred; for example, Staff witness King states that "ComEd provides relatively little information in its BE Plan about its Consumer Education and Awareness Program ('CEAP')" and that the utility "proposes to spend $9 million on the program but does not provide significant details on how that money will be spent." Staff Ex. 3.0 at 18:379-382. In addition, LVEJO witness Juliana Pino states that "the Plan does not explicitly address working with community organizations on education and outreach." LVEJO Ex. 1.0 at 8-9:148-149. In surrebuttal testimony, ComEd addresses some of those points and states that it "generally agrees with the recommendations provided [by, *e.g.*, King and Pino] and commits to seeking community input as it develops education and awareness materials, providing offline options for customers to learn about programs and offering materials in multiple languages (including on ComEd's website)." ComEd Ex. 12.0 REV at 21:395-398.

ComEd also states that it "appreciates the feedback regarding the need for strategies tailored toward reaching and providing assistance to small businesses and businesses operating in EJ and R3 communities" and that it "is open to considering the specific recommendations made, including crafting materials in coordination with community groups, providing materials in

multiple formats, proactively reaching out to customers and community leaders, including in-person outreach, and ensuring any related vendors are adequately equipped to serve these communities." ComEd Ex. 7.0 at 31:628-634. While ComEd's consideration of these suggestions is a step in the right direction, Clean Jobs Coalition Parties again reiterate the need to put more detail into how the utility intends to provide outreach to communities and individuals that are all too often left behind by utility programs.

The ICC workshop process that preceded this proceeding, which was intended to inform the utilities' BE Plans and which culminated in a report the Commission is required to rely on in its assessment of those plans, revealed real deficits in trust, based on vulnerable communities and constituencies' past experience, that utilities must overcome in their outreach. As the report noted, "[t]he importance of building trust with the Utilities delivering beneficial electrification programs was discussed, including the need for the Utilities to support electric vehicle education and outreach as part of their programs – both in partnering with trusted community-based groups to deliver the education, and to educate the community groups themselves." Illinois Commerce Commission Beneficial Electrification Workshops Staff Report to the Commission at 31. This need is reflected by Warehouse Workers for Justice, whose observation that "participants highlighted the fact that communities do not trust utility companies to meaningfully engage with directly impacted community members because they have historically been some of the last to receive infrastructure updates under the jurisdiction of ComEd and Ameren" should give the utilities and their regulator pause. ICC BE Workshops Staff Report, Appendix C: Stakeholder Feedback Received at 252. While it is encouraging that ComEd seems to be taking suggestions from LVEJO and others under advisement, being "open to considering" these recommendations does not amount to a firm promise that ComEd will build out its outreach plans in a way that

addresses community needs and effectively incorporates recommendations from communities, individuals, and their representatives that are best placed to understand what is needed to ensure that they equitably benefit from ComEd's programs. The final Commission order here should require ComEd to develop outreach plans that must include the specific recommendations of LVEJO and others, which is in line with what ComEd appears to intend.

Clean Jobs Coalition Parties also contend that fleet outreach needs to be increased. Efforts described by ComEd, including the Fleet Electrification Toolkit and the fleet assessment strategy, are steps in the right direction, but without more assurance that these tools will be tailored to different circumstances, they are unlikely to be successful. As stated in Dr. MacDougall's testimony on behalf of Clean Jobs Coalition Parties, "having those tools available is unlikely to be sufficient for ComEd to effectively reach and prioritize the fleets operating in communities that are underserved and/or suffering disproportionate impacts from air pollution" because "[i]n particular, small businesses and independent owner-operators may need additional specialized support in order to successfully make the transition to electric vehicles." EDF Ex. 1.0 REV at 34:719-723. Having education and outreach plans that include assistance to ensure fleets of all sizes can understand the benefits and mechanics of EVs, as well as what different rate structures available and how those rates will respectively impact bills, as well as how to mitigate significant bill impacts with different technologies, and how to navigate the regulatory and application processes for subprograms, will be critically important to ensuring that fleets can successfully transition to EVs.

When designing this customer education and outreach, ComEd should also recognize that different approaches need to be taken for residential and C&I customers – and even within those categories. A residential customer living in a single-family home might need a different type or

amount of information than a lower income individual or resident of a multi-unit dwelling; similarly, fleet customers operating MHDVs will have different needs than residential customers or even light-duty fleets; and, of course, different businesses operating MHDVs will have different needs and levels of technological knowledge and capacity. ComEd must accommodate these differences in usage and understanding when designing their education and outreach programs. Clean Jobs Coalition Parties witness Dr. MacDougall testified that "trucks and buses have physical and operational differences compared to passenger vehicles that give rise to distinct needs," EDF Ex. 1.0 REV at 8:143-144, as well as that "medium and heavy-duty vehicles have highly varied operational profiles. As a result of this variation, they will have a wide diversity of charging needs,..[and] some of these vehicles will be operated by large companies with extensive experience managing high levels of electric consumption, while others will be operated by entities that are entirely new to the large C&I space." EDF Ex. 1.0 REV at 9:147-148, 151-154. Given these inherent differences—as well as the significant impact that the load from these vehicles will have if not carefully managed—ComEd should ensure that its education and outreach is well structured to recognize and accommodate those differences.

Finally, ComEd should take into consideration in its customer education and outreach programs the requirement in Section 45(d) that BE Plans consider "opportunities for coordination and cohesion with electric vehicle and electric vehicle charging equipment incentives established by any agency, department, board, or commission of the State, any other unit of government in the State, any national programs, or any unit of the federal government." 20 ILCS 627/45(d)(viii). To the extent feasible, ComEd's customer education for both residential and C&I customers should include information about other available state and federal programs to help mitigate upfront costs. Among other things, ComEd should highlight

incentives that can be stacked, in order to ensure that equitable deployment of vehicles and charging stations are more fully realized. As well, utilities have a good understanding of state energy policy and changes in state and federal law that they can convey to fleets to help them better "understand the upgrades they need to make and how to use the new vehicles they will ultimately procure in a manner that is well integrated with the grid and that yields maximum benefits for themselves, other ratepayers, and society." EDF Ex. 1.0 REV at 10:189-191.

4. BE Pilot Program

In ComEd's original filing, the Company proposed to conduct several pilot programs – namely, pilots concerning Air Quality Mapping, School Bus Vehicle-to-Grid, Residential Optimized Charging, and Backup Power Capabilities. ComEd Ex. 2.0 at 37:701-703. In Rebuttal Testimony, in response to other parties' testimony that the pilots were insufficiently defined and detailed, the Company clarified that its proposals for pilots should not be understood as specific proposals, but, rather, as high-level focus areas based on feedback from BE workshops, with details to be worked out in a more detailed pilot design process. ComEd Ex. 7.0 at 32:650-652, 33:673-676. ComEd witness Erica Borggren also explained in her Surrebuttal Testimony that, "[b]ased on feedback from Staff and Intervenors that ComEd needs to more clearly define and commit to particular pilots," the Company proposed to update the BE Plan's Pilot Program to instead commit to conducting at least five specific pilots—School Bus Vehicle to Grid, Residential Optimized Charging, Curbside, Ridesharing (or other pilot program aimed at providing EV access to low income and EJ/R3 customers for whom car ownership is not an option), and Backup Power Capabilities. ComEd Ex. 12.0 REV at 22:415-421.

While the greater specificity with respect to the nature of the pilots it would undertake represents an improvement over its original proposal, the revised proposal still represents a

missed opportunity in several material respects. First, the selection of these particular five programs is not well justified and appears to be supported by input from a stakeholder process that was less than transparent; Borggren's response in her testimony refers generally and vaguely to "feedback from Staff and Intervenors." ComEd Ex. 12.0 REV at 22:410-411. As Clean Jobs Coalition Parties' witness Dr. MacDougall observed in her Rebuttal Testimony, the "pilot development process must include input from stakeholders, including community members, to ensure that each pilot has clear goals and metrics, and is aligned with the needs of both the community and the electric grid. ComEd should make it clear in its [BE Plan] how and when this stakeholder process will happen." EDF Ex. 2.0 at 18:330-333. Because there is so little detail associated with ComEd's conclusions here, it is impossible to assess the extent of the stakeholder input received in selecting the particular pilots that the Company is now proposing, nor to assess the appropriateness of its decision to disregard other pilot proposals. However, the limited insight that can be gleaned through Ms. Borggren's Surrebuttal Testimony suggests that certain rejected pilot proposals may not have been given meaningful consideration, to the detriment of ratepayers and communities, as further discussed in the section that follows.

a. Submetering Pilot

In Direct Testimony, Clean Jobs Coalition Parties witness Dr. MacDougall articulated the importance of submetering as a cost-effective tool to support EV load management EDF Ex. 1.0 REV at 39:820-826. The need to be able to rely on submetering as a basis for billing is all the more acute as a consequence of the Company's proposal to create two new EV rate classes for commercial charging customers, because the Company's proposal for new rate classes would not only require customers to pay the cost of an additional meter to participate, but, if a given customer were to make use of both L2 chargers and DCFC at the same premises, would require

such a customer to pay for *two separate additional meters*. EDF Exhibit 1.0 REV at 39:825-826; EDF Exhibit 1.4. As discussed in Section VII.A.1 of this brief, the rationale for dividing commercial charging customers into two separate classes based on, of all things, charger capacity, is dubious – and when combined with the Company's reliance on additional meters that customers would have to pay to obtain, the resulting cost burden on participating customers is both onerous and unnecessary.

Setting aside the merits of the rate class proposal as a whole, this needless cost burden for metering could be alleviated by relying on the submetering capabilities inherent in EVSEs. As Dr. MacDougall explained,

> *The approach to metering should be reasonably calibrated to the functionality that the metering needs to provide. Submetering has been found by other state utility regulators to provide sufficiently accurate consumption measurement to be used as a basis for billing vehicle charging under a specialized tariff where the submetering is taking place behind a utility-grade meter*. EDF Ex. 1.0 REV at 38:fn.33.

The use of this submetering capability "can significantly reduce the cost barrier to transitioning to electric vehicles by allowing EV charging customers to take service under EV-specific rates (such as a time-of-use ("TOU") rate) without having to install a costly separate utility meter." EDF Ex. 1.0 REV at 39:821-823.

Given the general importance of submetering in the vehicle electrification context, as well as its elevated importance in light of ComEd's specific proposals, Dr. MacDougall recommended that a pilot could be used to address challenges that currently make the Company believe it cannot rely on submetering, stating that "[i]f ComEd is not prepared to rely on submetering functionality integrated into EVSE equipment for this purpose, the Commission should require ComEd to undertake a pilot that explores how to effectively facilitate submetering, including changes to billing systems and practices to support sub-metering, such as

automated subtractive billing, while also updating billing to accommodate DERs and, in the future, allowing net-energy metering customers to utilize sub-meters should be contemplated." EDF Ex. 1.0 REV at 39:827-833.

In her Surrebuttal Testimony, Ms. Borggren summarily rejected Dr. MacDougall's proposal, indicating that "ComEd does not feel it can pursue [pilots for submetering and energy management systems] at this time, due to budget constraints, the need for rule waivers, and ongoing IT work." ComEd Ex. 12.0 REV at 23:441-443. When EDF asked Ms. Borggren to clarify this vague assertion, Ms. Borggren's responses revealed that despite citing "budget constraints," ComEd had not weighed the cost of conducting a submetering pilot, and the request that she specify the type of rule waiver that would be needed was met by multiple objections from the Company. EDF Group Cross Ex. 1.0 at 10-11. The Clean Jobs Coalition Parties view such testimony and responses as unjustifiably uncooperative and preclusive. The only specific reason for not pursuing this important pilot that Ms. Borggren was able to state with specificity was the nature of the purported IT work, which respect to which Ms. Borggren stated that "ComEd is currently transitioning between Customer Information Management Systems, which would make a submetering pilot particularly difficult at this time." EDF Group Cross Ex. 1.0 at 11. Ms. Borggren's responses also suggest that the Company has not made any serious effort to gauge the value of submetering (and thus the value of the pilot that it is summarily rejecting), stating that "[i]t is not possible to say for certain whether any individual customer would save money if their EV charger was submetered and billed on a different rate than the remainder of their energy usage," EDF Group Cross Ex. 1.0 at 10-11, and seemingly fails to appreciate that such purported uncertainty is a reason to give the matter some serious consideration, not a reason to proceed with onerous metering rules while leaving opportunities for cost savings unexamined.

When a utility entering into a new area of business ignores emerging best practices that have taken root in service territories with more developed markets, it does its ratepayers a grave disservice. As Dr. MacDougall conclusively demonstrated and as ComEd did not attempt to refute, submetering is such an emerging best practice. The Company has intensified the negative consequences of this error by proposing a charging class construct that will require some customers to procure not simply one new utility meter but potentially more than one for the same premises. It has declined to take the steps it could take to remedy this error, has declined to articulate a plan for taking such steps in the future, and has failed to satisfactorily account for its refusal to take such steps. The Commission should not approve a BE Plan with such a glaring deficiency without requiring the Company to provide a credible path forward for remedying this deficiency in the future.

5. Portfolio

B. OTHER INTERVENOR PROPOSALS

1. Load management

Section 45(d)(ii) of the EV Act requires the BE Plan to address:

> *the development and implementation of beneficial electrification programs, including time-of-use rates and their benefit for electric vehicle users and for all customers, optimized charging programs to achieve savings identified, and new contracts and compensation for services in those programs, through signals that allow electric vehicle charging to respond to local system conditions, manage critical peak periods, serve as a demand response or peak resource, and maximize renewable energy use and integration into the grid.*

20 ILCS 627/45(d)(iii). The Plan must also address "methods of minimizing ratepayer impacts…from the costs associated with facilitating the expansion of electric vehicle charging." 20 ILCS 627/45(d)(v). Despite these directives, ComEd remains opposed to including any substantive consideration of load management technologies in its BE Plan. ComEd witness Erica

Borggren states that nothing in the Plan prevents customers from installing these technologies alongside their EV chargers, but that they are "not eligible for incentives under the Plan, due to the focus on the technologies that drive electrification versus demand management." ComEd Ex. 7.0 at 19:375-378. The Company also does not believe a load management plan should be included in its current BE Plan proposal, its 2024 BE Plan proposal, nor a 2024 rate design investigation, as "[l]oad management is neither rate design, nor specific to EV charging." ComEd Ex. 11.0 REV at 26-27:580-584. Such protestations are inconsistent with the language of Section 45(d)(iii) of the EV Act, which specifically requires consideration of "optimized charging programs" that encourage peak avoidance and demand response, 20 ILCS 627/45(d)(iii), and ignore the value load management technologies can provide to reduce system costs to the benefit of all ratepayers, in line with Section 45(d)(v). As Clean Jobs Coalition Parties witness Mr. Nelson explained, with a State target to have 1,000,000 EVs registered by 2030, load management by the State's largest electric utility company "will become substantially more complex and will involve transitioning from managing thousands of electric vehicles and chargers to millions." NRDC Ex. 1.0 REV at 27:503-504. It is essential that ComEd "plan for future projected EV load and ensure that the grid can accommodate the increased load reliably and cost effectively." NRDC Ex. 1.0 REV at 27:505-506. The Clean Jobs Coalition Parties recommend that ComEd be required to develop and file a comprehensive EV rate design and load management plan, subject to stakeholder input, as part of the Company's July 1, 2024 BE Plan update. Such a plan would involve an assessment of all EV rates and programs, and services to incentivize EV load flexibility, and would be coordinated with the Company's grid modernization investment plans. EV rate design and load management need to be mature *before* EVs have proliferated and before the additional EV charging load causes significant additional

system costs. It is important that appropriate rates and plans be in place in order to shape EV customer behavior initially, rather than attempting to modify already-solidified charging behaviors. Getting out ahead in this way can also help facilitate EV adoption by providing lower charging cost opportunities. NRDC Ex. 1.0 at 27-28:516-526; NRDC Ex. 3.0 at 10-11:187-197.

Similarly, ComEd has failed to include in its BE Plan any plans to support the deployment of distributed energy resources ("DERs"), another important tool for avoiding greater-than-necessary distribution system investments. In the EV charging context, DERs include solar panels installed near charging stations to provide power to charging stations and battery storage that can store excess power from the solar panels and/or charge from the grid during low-demand, low-cost periods and later provide power to the charging stations. EDF Ex. 1.0 REV at 28:581-586. This allows EV operators, "even EV operators with somewhat inflexible charging needs, to decrease their demand from the grid while continuing to charge in a way that meets their operational needs." EDF Ex. 1.0 REV at 28:583-585.

Research shows that the scale of the impact DERs can have in this space is significant. A study in California found that a combination of managed charging and DERs could mitigate the peak demand of a single fleet of 50 class 8 vehicles by 4 MW. EDF Ex. 1.0 REV at 28-29:593-597. If deployed alongside charging stations at a meaningful scale throughout ComEd's service territory, DERs create an enormous potential for avoided distribution system capacity needs that would otherwise demand ratepayer funds as more EVs enter service and require charging infrastructure. But despite this potential, ComEd rejected the opportunity to include any consideration of DERs in its BE Plan, with Ms. Washington instead stating only that "ComEd supports the deployment of DER through other means, outside the scope of the BE Plan."

ComEd Ex. 6.0 at 28:569-570. ComEd has ignored evidence from stakeholders as to how DER integration could lead to a BE Plan that delivers greater benefit at lower ratepayer cost.

Given these omissions, it is clear that ComEd has not taken sufficient steps in its BE Plan proposal to minimize impacts on ratepayers, including low-income ratepayers, arising from the transition to EVs. The load management and DER technologies that exist today allow customers to manage their load in a way that most efficiently uses the existing distribution grid and mitigates or delays system upgrade needs, minimizing costs for all ratepayers. Therefore, the Commission should direct ComEd to develop and file a comprehensive EV rate design and load management plan, include in its BE Plan a program to incentivize the deployment of load management technologies including ALM/EMS, and ensure that there is robust coordination with DER programs in CEJA to bring the benefits of DERs to bear in these BE Plans. These DER incentives can be conditioned on the resources achieving a specified level of performance such as peak load reduction and limited in value to the cost of the supplemental line extension allowance or other distribution system investments that are avoided through the use of the technology.

2. Submetering

Customers would be better able to engage in passive load management, at lower cost, if ComEd allowed EV charging customers to be billed for electricity usage on EV-specific rates through submetering. As proposed, ComEd's BE Plan will require customers to install new utility meters, despite the existence of lower cost alternatives. For example, a customer seeking to participate in ComEd's proposed EV Charging Delivery Classes with both L2 and DCFC chargers at a single site will need to install separate utility meters for those two charger types. EDF Ex. 1.4 at 2. Submetering instead relies on the metering capabilities of the charging station

itself, rather than a utility meter, to measure that charging station's electricity consumption. EDF Ex. 1.0 REV at 37:779-780. Where EV-specific rates are available, submetering allows customers to access lower-cost charging during off-peak periods without installing a costly separate meter. EDF Ex. 1.0 REV at 39:820-823. And, these up-front savings through avoiding the need for a second meter can be significant, with average savings totaling hundreds to thousands of dollars in two pilots in California and Minnesota. EDF Ex. 2.0 at 18:336-338. Reliance on submetering should also be paired with required automated subtractive billing, which separates out submetered electricity usage data from a customer's other usage without the need for manual calculations by the utility, EDF Ex. 1.0 at 39: 830-831, as well as adequate monitoring of energy usage and standardization of data formats, EDF Ex. 1.0 at 40:844-846.

The feasibility and benefits of submetering have already been recognized in other jurisdictions, with the California Public Utilities Commission ("CPUC") directing that state's regulated electric utilities to implement submetering and associated billing system updates, EDF Ex. 1.3, and Xcel Energy in Minnesota receiving approval to convert their submetering pilot to a full program, EDF Ex. 2.0 at 18:336-338. But, as discussed in Section V.A.4 of this Initial Brief, ComEd insists that it is not the time to undertake such efforts in its own territory even at the pilot level, nor related pilots on load management and managed charging, claiming that "ComEd does not feel it can pursue these additional pilots at this time, due to budget constraints, the need for rule waivers, and ongoing IT work." ComEd Ex. 12.0 REV at 23:441-443. Such a statement evinces a fundamental lack of interest on the part of ComEd in considering the tools available today that can save its ratepayers money and decrease the cost to customers of deploying charging infrastructure.

3. Standards and Cybersecurity

Section 45(d)(vii) of the EV Act states that states that a utility BE Plan must address "whether to establish charging standards for type of plugs eligible for investment or incentive programs, and if so, what standards." 20 ILCS 627/45(d)(vii). In its BE Plan, ComEd rejects the opportunity to implement any such standards, with Ms. Washington stating that the Company "is not recommending including charging standards for the type of plugs eligible for investment or incentive programs in its BE Plan. Given the nascent, evolving status of the EV ecosystem, ComEd does not believe it would be appropriate to set any standards or requirements that would influence customers' choices of EVs or EV charging infrastructure." ComEd Ex. 1.0 at 21:423-427. Further, because the Commission's Interim Order prevents ComEd from providing direct incentives for the purchase and installation of publicly available EV charging stations, "it would be inappropriate for the Commission to impose requirements on EV charging equipment or charging services that are unrelated to their interaction with the grid." ComEd Ex. 11.0 REV at 11:231-235. This position has significant flaws, ignores prevailing standards in other jurisdictions and industry best practices, and creates significant risk of stranded assets and unreasonable use of ratepayer funds.

ComEd's position – that if it isn't subsidizing chargers it shouldn't require those chargers to meet certain standards – defies the intent of the EV Act, and ignores the reality of its own BE Plan. The Act clearly contemplates the utilities, including ComEd, adopting standards as part of their BE Plans. And although the Commission's Interim order prevents ComEd from directly incentivizing the purchase and installation of non-residential charging stations, the BE Plan continues to incentivize deployment of such charging stations indirectly, through sub-programs such as the C&I and Public Sector EJ/R3 EV Charging Infrastructure Sub-program. Ensuring

that charging stations served by the make-ready infrastructure and distribution grid upgrades supported by the BE Plan meet prevailing standards for interoperability, communications, safety, energy efficiency, and cybersecurity is critical for ensuring ratepayer dollars are being efficiently and effectively deployed through ComEd's BE Plan.

The failure to propose any standards for charging connectors is a potentially flawed use of ratepayer funds that ignore obvious trends in the EV market. CCS/J1772 connectors are the dominant standard for EV chargers, with the vast majority of EV models available today and expected in the future in the U.S. compatible with CCS/J1772. Staff Ex. 5.0 at 14:298-301. CHAdeMO-compatible vehicles, meanwhile, represent a small and shrinking market segment, with automakers and charging providers moving away from the standard. Staff Ex. 5.0 at 11:235-239. Federal regulators and utility Commissioners in other states have already recognized the market shift towards CCS/J1772: for example, the CPUC has already required that all ratepayer-funded DCFCs serving light-duty vehicles use CCS/J1772 connectors. EDF Ex. 1.3 at 41. And the draft standards for the National Electric Vehicle Infrastructure (NEVI) Formula Program would allow, but not require, funds to go towards CHAdeMO chargers in year one of the program before exclusively funding CCS chargers going forward. EDF Ex. 1.0 REV at 38:798-799. Some level of support for targeted investment in CHAdeMO connectors may be necessary for equity purposes, given the number of used EVs expected to remain in service that rely on CHAdeMO. EDF Ex. 1.0 REV at 918-919. However, this need must be balanced with ensuring ratepayer funds are efficiently and effectively deployed through the BE Plan. The reality is that a program completely devoid of any connector standards may overinvest in non-CCS/J1772 connectors, including CHAdeMO, which constitute a small and shrinking portion of the market, and will not be a reasonable use of ratepayer dollars in most contexts. As such, ComEd's

approach should be narrowly tailored to support CHAdeMO plugs where analysis shows that equity considerations would be furthered by the inclusion of CHAdeMO plugs, and otherwise require the deployment of CCS/J1772 plugs for light-duty public charging use cases.

Beyond charging station connector standards, ComEd rejected the opportunity to require any standards for communications protocols, energy efficiency, safety, or cybersecurity requirements for charging stations, stating that "the role of setting standards or requirements for EV charging equipment and charging services is better left to the market or, where an appropriate issue for regulation, to state and federal policymakers." ComEd Ex. 11.0 REV at 11:221-223. But this position ignores the statutory language specifically requiring the BE Plan to consider "whether to establish charging standards for type of plugs eligible for investment or incentive programs, and if so, what standards." 20 ILCS 627/45(d)(vii). This language makes clear the legislative intention that the *utilities* implement such standards where appropriate.

Implementing standards for communications protocols is in the interest of ratepayers. The two communications standards that Clean Jobs Coalition Parties recommend ComEd's BE Plan require for charging stations receiving incentives are ISO 15118, which standardizes communication between the EV and the charging station, and Open Charge Point Protocol ("OCPP"), which standardizes communication between the charging station and the charging station operator. EDF Ex. 2.0 at 10-11:173-183. ISO 15118 allows charging stations to be directly compatible with a wide range of EVs; without it, drivers would be more likely to experience difficulty connecting their EVs to chargers and/or paying for charging sessions, sometimes completely failing to complete a charging session. EDF Ex. 2.0 at 11:180-183. This could leave stations without ISO 15118 underutilized, and thereby result in any ratepayer funds put towards such stations not being used in the most responsible, efficient manner. Relatedly,

OCPP means that if a station operator goes out of business, a new operator can take over operation of the existing charging stations rather than being locked out by the former operator's proprietary software. EDF Ex. 2.0 at 10-11:175-180. Without OCPP, if a station operator goes out of business there may be no way to continue operation of that station, and any ratepayer money that went towards the station or associated grid infrastructure would become a stranded asset.

Compared to the risk of wasted ratepayer funds as a result of failing to impose standards, the cost of implementing these standards is miniscule. There is no direct cost to ratepayers in the aggregate, as the cost of complying with these standards would be borne by the charging station developer, not ComEd ratepayers. And these compliance costs for the developer are small to non-existent, with OCPP having no additional hardware needs and free open-source software, and ISO 15118 having minimal additional hardware costs. Requiring ISO 15118 and OCPP is also not unprecedented; both are already required in other jurisdictions. In California, the largest EV market in the U.S., the CPUC has required all ratepayer-funded charging stations be compatible with OCPP and be ISO 15118-ready by July 1, 2023. EDF Ex. 1.3 at 45. And, the draft regulations for the NEVI Formula Program similarly require compatibility with these two standards. EDF Ex. 1.0 REV at 38:796-800. Although the federal regulations are still in draft form, there was support from stakeholders to retain both standards in the final rule, and this final rule is expected imminently. This, combined with the consistency of the draft regulations with those already finalized in California, clearly demonstrates the trajectory of the market towards these standards that ComEd's BE Plan is ignoring, to the detriment of its ratepayers.

ComEd also wrongly rejected the opportunity to implement safety standards through requiring chargers be UL-listed or receive similar certification from another nationally

recognized testing laboratory ("NRTL"). Charging stations certified by UL or another NRTL have been tested to ensure minimal risk of fire, shock, and other personal injury from their operation. EDF Ex. 2.0 at 13:216-218. Such a requirement would align with requirement in California for charging stations receiving incentives from the California Energy Commission, and with those proposed for the NEVI program. EDF Ex. 2.0 at 13:220-221.

ComEd similarly rejected the opportunity to include energy efficiency standards (specifically, Energy Star certification) for charging stations in its BE Plan. Multiple intervenors, including the Clean Jobs Coalition Parties, support requiring Energy Star certification for charging stations receiving incentives through ComEd's BE Plan. EDF Ex. 2.0 at 11-12:194-196; Staff Ex. 16.0 at 10:252-256. Certified charging stations use less power when in standby mode, generating lifetime savings for station operators of hundreds to thousands of dollars while also reducing demand on the grid. EDF Ex. 2.0 at 12:202-207. Given the current state of the market, the Clean Jobs Coalition Parties recommend that ComEd require Energy Star certification for level 2 charging stations deployed through the BE Plan that many fleets conducting overnight charging will utilize and recommend but not require such certification for direct current fast charging ("DCFC")lol stations, with a plan to set a deadline to require certification for DCFC stations as the market develops and this certification become available for Level 3 charging. ComEd points to objections from FLO Services, Tesla, and CTA regarding Energy Star certification requirements for non-residential chargers, particularly for "more specialized end-uses." ComEd Ex. 11.0 REV at 16:328-330. But these objections may not be persuasive, given that electric vehicle service equipment ("EVSE") providers who must look after their bottom line might be faced with a situation in which their products may be ineligible for incentives in the face of such a requirement. And, the Clean Jobs Coalition Parties' recommendation of requiring

Energy Star certification only for level 2 chargers at present and setting a timeline for a similar requirement for DCFCs should not inhibit infrastructure deployment by CTA in the near term while allowing the agency to engage in the future consideration of DCFC certification requirements.

ComEd also rejected the opportunity to set cybersecurity standards for charging stations as part of its BE Plan. EDF recommends that ComEd require ratepayer-supported stations implement the up-to-date catalog of cybersecurity standards from the National Institute of Standards and Technology ("NIST"), as well as Transport Layer Security ("TLS"). Together, these standards would ensure sensitive customer information accessible to charging stations, such as payment information, is protected from cyberattacks. EDF Ex. 1.0 REV at 40:862-865. They would also ensure that chargers that are in communication with utility systems as part of any demand response programs do not provide an avenue for cyberattacks against the utility itself. The EV Act explicitly calls for consideration of such communications as part of its BE Plan, including "signals that allow electric vehicle charging to respond to local system conditions, manage critical peak periods, serve as a demand response or peak resource, and maximize renewable energy use and integration into the grid." 20 ILCS 627/45(d)(ii). Cybersecurity protections would provide security to the users of charging stations supported by the BE Plan, while ensuring that necessary protections are already in place if ComEd were to implement future programs that incorporate such communication and control.

The failure to require these standards, despite widespread industry and regulatory recognition that they are achievable and valuable, represents a significant omission from ComEd's BE Plan that creates significant stranded asset risk and leaves customer information vulnerable. The Commission should require ComEd to include these baseline standards now,

while further stakeholder work takes place at the state and federal level to further refine which, if any, additional standards are appropriate.

C. GENERAL ASPECTS OF THE BE PLAN

1. BE Plan Budget

2. Budget Flexibility

3. Rebate Levels

4. Retail Rate Cap

5. Other Issues

D. STATUTORY REQUIREMENTS

1. Compliance with EVA §45(d)(i)-(x)

Section 45(d)(i) directs ComEd to address make-ready investments to facilitate the rapid deployment of charging equipment. EV EMS can help defer or avoid certain customer-side and utility-side distribution infrastructure to accommodate increasing EV charging load. This factor is especially important in low-income communities that may be served by outdated utility infrastructure that would require costly upgrades in order to accommodate EV charging load. The use of EV EMS can mitigate these upgrade costs and make charging infrastructure more affordable in these communities. NRDC Ex. 1.0 at 28-29:530-554. The Company can further support the use of EV EMS by adopting a standard site evaluation methodology applicable to all non-residential EV charging sites, including those not receiving Company funding for make-ready infrastructure; the evaluation would determine if EV EMS could cost-effectively meet the customer's charging needs. The customer could then incorporate the results into the project. The Company also should make incremental EV EMS costs eligible for rebates. Such rebates will be a net gain for ratepayers if the costs avoided by the use of EV EMS exceed the rebate amount. NRDC Ex. 1.0 at 30:576-586.

In addition to load management and time-of-use rates, which Clean Jobs Coalition Parties address in Sections V.B.1 and VII.C, respectively, Section 45(d)(ii) demands that ComEd address programs that "maximize renewable energy use and integration into the grid." 20 ILCS 627/45(d)(ii). In Direct Testimony, Clean Jobs Coalition Parties witness Dr. MacDougall articulated the role of VGI in maximizing renewable energy use and integration. Dr. MacDougall pointed out that beneficial electrification must be viewed in the context of the energy transition as a whole, a process in which electric utilities must play a central role, noting that simultaneously with beneficial electrification, energy supply is also shifting from traditional large fossil-fueled power plants to decentralized renewable generation. EDF Ex. 1.0 REV at 6:95-99. As Dr. MacDougall testified, the best way to minimize the cost of the transition to decentralized renewable generation is to identify technologies that can increase the flexibility of consumption and leverage those technologies to make optimal use of renewable generation resources as well as maximize the use of grid capacity to mitigate unnecessary and expensive grid expansion – and that failure to take advantage of these technologies could unnecessarily increase costs for all ratepayers. EDF Ex. 1.0 REV at 6-7:99-106. Dr. MacDougall highlighted the role of EVs, and particularly electric trucks and buses, in this transition to more renewables, stating that "[a]s batteries on wheels, they have tremendous promise as a resource; in the aggregate, they represent flexible demand that can be deployed on various time scales to maximize reliance on renewable generation and reduce the need for system capacity..." EDF Ex. 1.0 REV at 7:115-117. In summary, ComEd's relative lack of interest in managing EV charging load through its programs (further discussed in Section V.B.1) can be expected not only to increase the cost of electrification to ratepayers, but also to hinder large-scale reliance on

renewable generation and increase the cost to ratepayers of transitioning to such non-polluting generation resources.

2. EVA Public Interest Criteria §45(d)(1)-(8)

3. Benefit-to-Cost Analysis §45(d)

Staff witness King, in his Rebuttal Testimony, criticizes ComEd's proposal because "while [ComEd witness] Mr. Vogt does describe where in the BCA [benefit-cost analysis] customer rates are considered, the cost-benefit analysis does not separately identify effects on ratepayers...the Commission should direct ComEd to provide the RIM [ratepayer impact measure] results or results of a similar test that separates effects on ratepayers for each of its programs and Plan as a whole." Staff Ex. 14.0 at 31:680-682, 684-686.

The EV Act is clear that a primary function of the statute is to achieve the *widespread adoption of electric vehicles,* 20 ILCS 627/45(a), and that this widespread adoption should be targeted to confer various benefits upon Illinois—some of which would be expected to accrue outside the utility sector ("[w]idespread adoption of electric vehicles should stimulate innovation, competition, and increased choices in charging equipment and networks and should also attract private capital investments and create high-quality jobs in Illinois." 20 ILCS 627/45(a)(10)). The provision that guides the Commission's review of BE Plans, Section 45(d) provides that approval should turn at least in part on whether the plan in question is in the public interest and whether it is cost beneficial, and provides further that "[t]he *plan* shall be determined to be cost-beneficial if the total cost of beneficial electrification expenditures is less than the net present value of increased electricity costs (defined as marginal avoided energy, avoided capacity, and avoided transmission and distribution system costs) avoided by *programs under the plan*, the net present value of reductions in other customer energy costs, net revenue from all

electric charging in the service territory, and the societal value of reduced carbon emissions and surface-level pollutants, particularly in environmental justice communities. The calculation of costs and benefits should be based on net impacts, including the impact on customer rates." 20 ILCS 627/45(d), emphasis added. This instruction to the Commission communicates unequivocally that the General Assembly was well aware that a given BE Plan would be comprised of *multiple programs*, and that the cost-benefit analysis that would inform whether the BE Plan was to be approved was to be performed at the level of the plan as a whole, and *not* at the level of the particular program. Logically, this implies an appreciation of the fact that a BE Plan is a portfolio of programs, and an expectation that some individual programs may *not* be cost-beneficial by themselves provided that the portfolio in its entirety is cost-beneficial. The statute is also clear that the impact on customer rates is part of this plan-level analysis, not a separate exercise that would be appropriate to undertake at the program level instead.

Nothing in the statute suggests that every single programmatic component—including those components expected to yield economic development benefits to the state as a whole—must, by itself (in addition to yielding the intended benefits, which might be expected to accrue outside the electric sector, as in the case of the economic development benefits contemplated in Section 45(a)(10)), *also* yield benefits to all non-participating ratepayers within ComEd's service territory by exerting downward pressure on rates paid by ComEd electric utility customers. To the contrary, the statute as a whole evinces an intention of leveraging transportation electrification to achieve societal goals outside the electric utility sector, and expressly provides a mechanism for permitting individual programs that might not, by themselves, be cost-beneficial to be approved as part of a portfolio of programs that in aggregate are cost-beneficial and

promote the statewide public interest.Given this statutory framework, Mr. King's proposal is unnecessary for the Commission to grant approval of ComEd's BE Plan.

4. Consideration of the Staff Workshop Report Recommendations §45(d)

5. Workforce Equity §45(h)

E. IDC WAIVER

VI. RECOVERY OF BE PLAN COSTS

A. COMED'S COST RECOVERY PROPOSAL

1. Rider BE

2. Regulatory Asset

3. Rate of Return Applied to the Regulatory Asset

B. CUSTOMER BILL AND RATE IMPACT

VII. RATES AND RATE CLASSES

A. COMED'S PROPOSALS

1. Separate EV Charging Delivery Classes

Section 45(d)(iii) and (iv) of the EV Act state, respectively, that BE Plans must consider "optional commercial tariffs to traditional demand-based rate structures to facilitate charging for light duty, heavy duty, and fleet electric vehicles," 20 ILCS 627/45(d)(iii), and "financial and other challenges to electric vehicle usage in low-income communities, and strategies for overcoming those challenges, particularly in communities and for people for whom car ownership is not an option." 20 ILCS 627/45(d)(iv). In its initial filing, ComEd proposes the creation of separate EV charging delivery classes for nonresidential customers with separately metered EV charging load – an EV Level 2 Charging Delivery Class and an EV Fast Charging Delivery Class. ComEd would recover the costs of customer-side make-ready facilities through a

monthly line item charge on customer bills. Customers in one of the delivery classes would have the option to have distribution charges billed on a kW or kWh basis. NRDC Ex. 1.0 REV at 20-21:370-377. The Company states that its proposal, which creates two new charging delivery classes for nonresidential customers is driven by two primary factors: "first, ComEd is responding to customer concerns about reducing the upfront cost barriers associated with the installation of make-ready infrastructure to support new EV charging stations.... [ComEd's proposal] also addresses another concern by providing a "per kWh" DFC [distribution facilities charges] which is designed to assist customers when utilization of EV charging stations is low." ComEd Ex. 5.0 at 5:103-107. ComEd stresses that the classes are optional, and that "the charges associated with the Make-Ready Facilities Service would be designed to recover the costs of the Make-Ready Facilities, and not the costs associated with the Distribution Facilities." ComEd Ex. 15.0 at 8:152-154.

While the rationale for the charging classes is, at least in part, that it is important "to separate the costs related to these cost causers from those caused by other types of customers," ComEd Ex. 10.0 at 13:255-256, there is no clear evidence that these sort of cost shifts will actually occur, or that these optional rate classes will avoid such shifts. Curiously, ComEd dismisses Clean Jobs Coalition Parties' proposal that demand charges be based on a sliding scale based on customer load factor (as described below in this subsection), stating that "in the current environment, where data is more limited, a sliding scale approach runs the risk of setting the demand charges either too low, or too high, each resulting in cross-subsidies within the class." ComEd Ex. 10.0 at 13:263-266. However, when it comes to its own proposals, ComEd fails to acknowledge comparable data deficits, even where they clearly appear to exist – and the creation of those separate delivery classes is a class in point. Those delivery classes present a clear risk

of ‘cross-subsidies within the class,’ but when asked about what data they have concerning the cross-subsidy risk, ComEd’s responses suggest that they possess no such data and have performed no analyses that would give rise to such data. Indeed, ComEd’s responses to discovery questions suggest that they possess no such data and have performed no analyses that would give rise to such data. EDF Ex. 1.4 at 2. As such, Clean Jobs Coalition Parties encourage the ongoing tracking of this metric with this proposal – rather than just evaluating resulting data at the ten-year mark, as the utility proposes. ComEd Ex. 15.0 at 10:197-199. More fundamentally, the insufficient existing data makes separate EV charging delivery classes unwarranted at this time. It is not enough that certain customers will be using a new technology; such a decision should be based on customer load profiles that would support new delivery classes. EV charging load has not yet been shown to be significantly different from other C&I load. While load-profile and other data to be acquired may justify a separate class in the future, data is lacking to support such a proposal at this time. NRDC Ex. 3.0 at 12-13: 228-239. This approach mirrors the approach recently taken by the New York Department of Public Service. NRDC Ex. 3.0 at 13: 255-258.

As with other programs proposed by ComEd, while the intention behind the proposal is laudable, the devil is in the details. Important considerations are omitted that may affect how smoothly many vehicles are integrated into the grid in the most cost-effective way. ComEd continues to separate the charging classes Level 2 and DCFCs into separate classes, stating ComEd is “initially proposing that Level 2 delivery charges be based upon the Small Load Delivery Service Class (0-100 kW) and that DCFC delivery charges be based upon the Medium Load Delivery Service Class (101-400 kW).” ComEd Ex. 15.0 at 4:69-72. This is an arbitrary distinction, since there are fleets within the small load delivery class that might need DCFCs and

fleets within the medium load delivery class that might have more vehicles but can make do exclusively with Level 2 chargers; as such, this line does not recognize the realities of fleet diversity. In addition, if the intention with these delivery classes is to reduce upfront cost barriers, the fact that these classes are "paired with ComEd's proposal for separately metering nonresidential EV charging stations," ComEd Ex. 15.0 at 7:137-138, seems to belie that intention. As discussed in Section V.B.2, submetering can be an effective and less costly alternative to requiring a separate meter, so ComEd's continued refusal to consider it as part of a program purportedly designed to address upfront cost barriers is confusing at best.

Finally, for the per kWh option, ComEd continues to base their distribution charge on a flat volumetric rate. As Clean Jobs Coalition Parties witness Mr. Nelson explained, demand charges for C&I customers should not be eliminated entirely; some distribution facilities are driven by a customer's demand and their costs should be collected through demand charges. With no demand charge component, EV customers with high peak demand would have no incentive to manage their demand, likely leading to under-collection of distribution costs from them. Additionally, converting demand charges entirely to flat energy charges creates little incentive for EV customers to manage their charging load, including limiting peak demand and avoiding charging during high-cost periods. NRDC Ex. 1.0 at 23-24:431-455. This does not provide sufficient incentive to ensure that charging coincides with low-cost times and times of high renewable energy availability. Vehicles like trucks and buses, "as batteries on wheels...have tremendous promise as a resource; in the aggregate, they represent flexible demand that can be deployed on various time scales to maximize reliance on renewable generation and reduce the need for system capacity." EDF Ex. 1.0 REV at 7:115-117. However, if given an insufficient price signal to adequately manage that demand, those critically important services

will not come to fruition. More than a missed opportunity, this has the potential to create significant—but avoidable—costs across the system for which ratepayers will have to foot the bill. The Commission should reject ComEd's proposed per kWh charge option. Instead, As Mr. Nelson advocated and explained, ComEd should be directed to adopt a demand charge alternative that includes a sliding scale based on the customer's load factor. Demand and energy charges would be structured on a related sliding scale, so that the demand charge increases along with the load factor, accompanied by a decrease in the energy charge. Low load factor customers would have low demand charges and high energy charges and, conversely, high load factor customers would have higher demand charges and lower energy charges. In addition, the energy charges should be time-differentiated, rather than flat, in order to incentivize customers to shift charging to low-cost periods. Mr. Nelson provided further details for this proposed rate structure alternative. NRDC Ex. 1.0 at 25-26:465-495. In his surrebuttal testimony, ComEd witness Martin Fruehe found merit in the sliding scale demand charge approach of Mr. Nelson. ComEd Ex. 15.0 at 11:227-231.

2. Watt-Hour Delivery Class

As an alternative to the optional charging classes, ComEd proposes to allow "EV Charging customers to elect to take delivery service under a class [the Watt-Hour Class] that recovers distribution facilities costs based on upon a volumetric $/kWh charge, thus resulting in a lower distribution charge for customers with high demand and low usage than they would have in a class that bases the charge on a $/kW basis." ComEd Ex. 15.0 at 8:162-167. While participating in this existing class may be helpful for certain C&I customers, this proposal appears to suffer from the same deficiency as described in Section VII.A.2—because the volumetric charge does not appear to be time-based, ComEd continues to fail to harness the

potential for vehicles to help integrate more renewable energy and enable a more efficient use of the system. Clean Jobs Coalition Parties continue to recommend that ComEd alter its distribution charges in order to better reflect grid conditions—by utilizing a time-based rate.

B. MAKE-READY

1. Rider NS

2. Rider DE

C. HOURLY PRICING AND TIME OF USE

The EV Act requires the BE Plan to specifically address beneficial electrification programs that include "time-of-use rates and their benefit for electric vehicle users and for all customers…." 20 ILCS 627/45(d)(ii).

1. Residential Customers

The Company proposes to require residential customers receiving charging infrastructure rebates to become enrolled in hourly pricing for electricity supply under Rate BESH ("basic electric service hourly" pricing) for at least three years, thereby strongly incentivizing customers to charge their EVs during low-price hours. ComEd Ex. 2.0 at 15:267-271; 278-280. By contrast, a residential customer that does not receive such a rebate has three pricing options for ComEd-provided supply: a flat rate, real-time pricing, and a TOU pilot rate. NRDC Ex. 1.0 REV at 13:242-244.

Clean Jobs Coalition Parties witness Ron Nelson explained why real-time pricing under Rate BESH is not appropriate for all residential customers. While Rate BESH should remain an available option, most residential EV users do not have the technology to respond dynamically to real-time pricing. Mr. Nelson asserted that most EV drivers do not have access to the advanced energy management systems required in order to optimize charging around the dynamic price

signals under Rate BESH. NRDC Ex. 1.0 REV at 14:258-269. In addition to real-time pricing that changes by the hour, residential customers should have available a simple TOU rate, applicable to their entire whole-house usage and that includes supply, transmission and distribution. A simple, well-designed TOU rate can provide effective price signals to cause customers to shift charging to low-cost periods without the complexity and price volatility of real-time pricing. Under such a TOU rate, customers can set their EVs and chargers to begin charging at the same specific daily time instead of having to try to track and respond to changing hourly prices. A TOU rate also will protect customers from exposure to exceptionally high prices caused by emergency events that could occur under a real-time pricing rate. NRDC Ex. 1.0 REV at 15:272-285. A TOU rate should be the default rate for residential EV customers who participate in the rebate program as well as EV-owning customers who do not receive the rebates. Having the TOU rate applicable to the customer's entire electricity usage also eliminates the need for a separate EV charging meter. NRDC Ex. 1.0 REV at 16-17:305-320.

Mr. Nelson recommended that the TOU rate have a super-peak period of 2:00-7:00 pm and an off-peak period of 10:00 pm to 6:00 am, and an on-peak period. These time periods are based on average hourly locational marginal prices, which Mr. Nelson analyzed, and explained in detail, for 2019 and 2021. NRDC Ex. 1.0 REV at 17-20:323-353. He recommended that the ratio of super-peak to off-peak pricing be set at least at 3 to 1, with off-peak pricing set low enough, reflecting the low prices in PJM to provide a strong incentive for overnight charging. NRDC Ex. 1.0 REV at 20:355-360.

In response to Mr. Nelson's proposals, the Company claimed that a whole-house TOU rate may not be practical due to adjustments resulting from the differences between the monthly rate charged to customers and the cost of energy procured in the hourly market. ComEd Ex. 10.0

at 21-23. Nonetheless, the Company stated it would consider developing a TOU rate applicable to both generation and distribution in its upcoming (likely 2024) rate design investigation. Regardless of the potential for price fluctuations as ComEd described, Mr. Nelson continued to advocate for a whole-house TOU rate, which would not only give participating customers a chance to lower their costs, but also would, by encouraging beneficial charging behavior, lower system costs to the benefit of all customers. The proposed pricing periods are straightforward and actionable, with customers able to program their EVs and chargers to charge at the same time every day. NRDC Ex. 3.0 at 3:36-44.

In response to the concerns and testimony of Mr. Nelson and other witnesses, ComEd modified its original proposal to require that participating residential customers enroll in Rate BESH for supply service for three years. Instead, the Company stated that, while such customers would initially be on Rate BESH, during the three-year period the customer could opt for an approved alternative retail electric supplier ("ARES") TOU rate or a potential future ComEd TOU rate. ComEd Ex. 10.0 at 24:472-478. While the Clean Jobs Coalition Parties support ComEd's amended proposal, a bundled TOU rate option remains important as a way for customers to align their charging with time periods beneficial to the entire system, and not just with respect to the generation component (such as under an ARES TOU rate). NRDC Ex. 3.0 at 5-6:88-95.

2. Commercial and Industrial Customers

In addition to proposing the two new delivery classes for nonresidential EV customers, the Company highlights that Rate BESH for Company-furnished electricity supply is applicable in certain circumstances. Although some C&I customers are good candidates to manage more complex price signals, real-time pricing may not be appropriate for all C&I customers. In order

to ensure sufficient optionality to reflect the wide variety of customers in the C&I space, Mr. Nelson recommended that, for C&I customers, ComEd offer a simple TOU rate option that includes transmission and supply charges. The design, including the price differentials and time periods, should be similar to the recommended residential TOU rate. NRDC Ex. 1.0 REV at 23:417-428. It should be further noted that under the Company's proposal, C&I customers that do not take service under Rate BESH and choose to take service under a distribution rate with no time-variant component, may have little to no incentive to manage their charging, which could lead to negative consequences for the system and the potential for VGI.

D. OTHER INTERVENOR PROPOSALS

VIII. INDEPENDENT EVALUATION

IX. ANNUAL REPORTING

In order for a program to be successful – and to successfully inform future iterations of the BE plan – it is imperative that data be collected consistently and that data collected be of sufficient quantity and type to successfully inform those future iterations. The EV Act requires that, at minimum, ComEd collect and annually report "demographic and geographic data for each applicant and each person or business awarded benefits or contracts" through its BE Plan. 20 ILCS 627/45(i)(2). The Act also directs ComEd to collect and share data documenting its "efforts to increase the use of contractors and electric vehicle charging station installers that meet multiple workforce equity actions" 20 ILCS 627/45(h).

In direct testimony, Dr. MacDougall described the types of targets and metrics that are important for a utility regulator to require to ensure the success of utility electrification programs and identify the need for course corrections where necessary, and provided specific

recommendations made previously to the CPUC as an illustrative example. EDF Ex. 1.0 REV at 20:445-447. In general, data on the following categories needs to be regularly collected:

- Timing of load shape and charging in order to adequately assess the extent to which vehicles are being successfully integrated into the grid;
- Ensuring that the specific needs of MHDVs are recognized and adequately accounted for; and
- The availability of appropriate incentives for VGI capabilities, which includes vehicle-to-grid and managed charging.

ComEd should ensure that they embed within those broad categories data on number and types of charging station deployment, the types of vehicles that are supported by vehicle, interconnection timelines, charging stations deployed in equity eligible communities, cost per port, broken down by charger type and market segment served, load data and the extent to which load is shifted to times of low demand and/or high renewable penetration, and bill impacts – to name a few. EDF Ex. 1.2 at 9, 12, *et al.*

In its BE Plan, ComEd proposed to include, in an annual report, data on demographics of program and procurement applicants and beneficiaries, "general information on its progress related to implementation and execution of each of the BE Plan Programs and subprograms," a description of the customer awareness and education activities in the past year, and information about BE Pilot activities and total spending on pilots. ComEd Ex. 1.0 at 30-34:627-717. The "general information" would consist of the total number of applications received and rebates distributed for each BE Plan sub-program. ComEd Ex. 1.0 at 30-34:637-707. In Rebuttal Testimony, ComEd responded by other parties' proposals in testimony by expanding its proposed reporting categories to include "information regarding its outreach and education

efforts, particularly to eligible communities," "information regarding its changes to budget," to the extent possible "kilowatt-hour data regarding the Residential EV Charging Infrastructure Sub-program" and "ComEd's rate design options – the EV Charging Delivery Classes and Rate BESH," "the estimated reduction in air emissions resulting from its BE Plan," and "data regarding the effectiveness of shifting load for the optimized charging pilot." ComEd Ex. 6.0 at 24-27:484-551. ComEd also agrees to include two categories recommended by Clean Parties Coalition witness Dr. MacDougall: aggregate information on the number of charging sites, states, ports, and types of charging stations for each sub-program, and "to the extent there are enough projects incentives through the C&I and Public Sector EV Charging Infrastructure Make-ready Sub-program," anonymized and aggregated load profile data by charging use case. ComEd Ex. 11.0 REV at 22:470-480. The Clean Jobs Coalition Parties largely support ComEd's annual report proposal with these categories included.

One data reporting category recommended by Dr. MacDougall, and rejected by ComEd, is data concerning interconnection timelines, including average interconnection time for sites, the number of rejected interconnection applications, and a summary of common reasons for rejected applications. Long interconnection timelines for charging infrastructure and rejected interconnection applications that force applicants to revise and resubmit their applications can be a significant burden for charging station developers and a source of significant delays in bringing new charging infrastructure online. Given that interconnection can take months, and in some cases years, a utility's failure to understand the extent to which interconnection can be a barrier to EV adoption – or to have a plan to mitigate that barrier with careful planning – might result in consumer hesitancy to adopt electric vehicles, ultimately stunting the vehicle market.

Despite this reality, ComEd rejected Dr. MacDougall's recommendation to include such interconnection data in its annual report, stating only that "ComEd has an obligation to serve all customers and does not differentiate between an EV station and any other new load in its new service connection process." ComEd Ex. 11.0 REV at 22:482-483. This position demonstrates a failure to recognize the specific needs of EV charging customers—namely, that their significant capacity needs can arise in a comparatively short period of time, which gives rise to a unique mismatch between customers' needs and ordinary utility interconnection processes and makes utilities' timely attention to interconnection challenges critically important.

Section 45(d)(8) of the EV Act specifically requires the Commission to consider "whether the [utility] investments and other expenditures are designed and reasonably expected to… provide resources to support private investment in charging equipment…." 20 ILCS 627/45(d)(8). As discussed above, ComEd should be on notice that interconnection timelines are something that creates problems for charging customers everywhere else; minimal EV adoption in ComEd's service territory may have kept this issue from surfacing previously, but in light of the EV Act it is only a matter of time before it does. As such, this Commission cannot reasonably find that a BE Plan that entirely ignores this issue can be "reasonably expected to…provide resources to support private investment" by would-be charging customers in the ComEd service territory.

X. FUTURE BE PLANS AND COMPLIANCE FILING

XI. CONCLUSION

Clean Jobs Coalition Parties appreciate the opportunity to provide testimony and other evidence, and briefing on ComEd's BE Plan proposal. Given the climate and health imperative associated with the need to electrify transportation, and the critical role that utilities must play in

that transition, BE Plans have the potential to move the needle significantly in a positive direction. As discussed above, however, ComEd's proposal would benefit from certain modifications to better ensure that it achieves that outcome. For that reason, NRDC, EDF, Sierra Club, RHA, and LVEJO respectfully request the Commission to adopt the modifications and additions incorporated in the foregoing sections of this Initial Brief.

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Respectfully submitted,

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