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Supplemental Comments of the Citizens Utility Board for the Illinois Commerce Commission Initiative on Plug-In Electric Vehicles

The Citizens Utility Board (“CUB”) submits the following supplemental comments to the Illinois Commerce Commission (“ICC” or the “Commission”) for consideration under the Initiative on Plug-In Electric Vehicles (the “Initiative”). CUB appreciates the opportunity to comment on this consequential topic, and looks forward to working with other stakeholders to ensure that Illinois ratepayers are able to fully reap the economic, societal, and environmental benefits of Plug-In Electric Vehicles (“PEVs”). CUB commends the ICC for addressing critical questions in this important initiative.

I. The appropriate regulatory paradigm (if any) for private and public charging stations.

In considering whether there is an appropriate regulatory paradigm for private and public charging stations, Commonwealth Edison Company (“ComEd”) and Ameren Illinois Company (“Ameren”) both concluded in their respective PEV Assessment Reports that PEV charging infrastructure should be found to be a “competitive service” under the Electric Service Customer Choice and Rate Relief Law of 1997 (“1997 Restructuring Law”).

Stakeholders including BlueStar Energy Solutions (“BlueStar”), CNT Energy and I-GO Car Sharing (“CNT Energy / I-GO”), and the Environmental Law & Policy Center (“ELPC”) also

advocated in comments for this designation. CUB is concerned about equating PEV charging

infrastructure as a “competitive service” and thinks the issue merits further consideration and discussion. Declaring PEV infrastructure to be a “competitive service” under the 1997 Restructuring Law would appear to limit any regulation of such infrastructure by the ICC before the ICC, the utilities, or the larger community of stakeholders interested in promoting the use of PEVs have a chance to understand the nature of the infrastructure required to support widespread PEV deployment.

ComEd and Ameren both recommend that any infrastructure associated with PEVs should be classified as a “competitive service” within the Public Utilities Act. ComEd concludes that defining PEV charging infrastructure as a competitive service “appears to minimize regulatory barriers to its deployment.”¹ ComEd believes that “public charging services may be more appropriately considered to be a competitive service” but admits that the issues merits “further discussion.”² Ameren likewise concludes that “[c]harging infrastructure arguably is related to, but not necessary for, the provision of electric power and energy delivery service. Therefore, a charging station is arguably a competitive service, and the 1997 Restructuring Law makes clear that such an activity is outside the scope of the Commission's jurisdiction.”³ This view is supported by several stakeholders, including BlueStar, CNT Energy/I-GO and the Environmental Law and Policy Center (“ELPC”).⁴

Illinois utilities currently do not own or operate PEV charging stations for use by customers with electric vehicles, nor is CUB aware that the utilities have plans to do so. Presumably, a PEV charging station wouldn’t be considered a “product or service” and is not a “competitive service” as defined by Illinois law. CUB agrees with Ameren, ComEd, and ELPC that at this time PEV is the functional equivalent with any other consumer appliance.⁵ As ELPC explains,

¹ ComEd Assessment at 27.

² *Id.* at 7-8.

³ Ameren Assessment at 4.

⁴ BlueStar Initial Comments at 4; CNT Energy/I-GO Initial Comments at 8; ELPC Supplemental Comments at 2-3.

⁵ Ameren Assessment at 4; ComEd Assessment at 29; ELPC Supplemental Comments at 3.

“Utilities have the responsibility for ensuring grid reliability, maintaining and upgrading distribution system components to serve a constantly shifting load profile. Customers add new appliances to utility feeder systems every day. Electric furnaces, air conditioners, clothes dryers, stoves/ovens, hot water heaters, and hot tubs have an electric demand similar to that of a Level 2 charging station and it would not be fair, consistent, or appropriate to treat PEVs any differently than any other consumer appliance for purposes of cost causation.”⁶

The question is whether it then is appropriate to classify PEV charging infrastructure as a “competitive service” while at the same time considering a charging station to be equal to a consumer appliance. It would not make sense to designate a utility customer’s water heater to be a “competitive service.” Presumably the goal of seeking a classification now is to minimize regulatory uncertainty – or regulatory interference – for those developing PEV infrastructure technology. Given the small scale of PEV adoption likely over the next few years, and the demand profile of Level 2 charging stations, CUB sees no reason to preliminarily classify charging stations and any related infrastructure. As the ICC better understands how PEV infrastructure will impact the distribution utility, including what demands for public charging infrastructure are anticipated, the ICC can revisit the question of whether it needs to classify this infrastructure in any way different than existing distribution infrastructure. Before making any designation the ICC should consider the impact on its ability to regulate the behavior of the utility, the customer, and the infrastructure service provider.

If the utilities and stakeholders decide that a statutory designation for PEV infrastructure is appropriate in the future, there are certain terms that need to be defined before that decision takes place. The utilities and stakeholders should come to an agreement on definitions for “PEV charging station,” “Level 1 charging station,” and “Level 2 charging station.” CUB sees two ways of looking at PEV charging infrastructure. The first is to view a PEV charging station as a simple plug-in apparatus in an electric car owner’s garage. The second is to view it as a charging station available for use outside an electric car owner’s home,

⁶ ELPC Supplemental Comments at 7.

operated by a separate entity. CUB finds ComEd’s attempt to characterize PEV charging stations in two different ways in its Report compelling:

“In one sense, a PEV charging station is essentially nothing more than an electrical outlet. Electric vehicle owners merely plug their PEV into a public charging station and draw electricity from the station just as they do when they plug the PEV into an electrical outlet at their homes. A PEV is just another appliance that draws electricity from the outlet/charging station in order to function... However, in another sense, the view that a PEV charging station is nothing more than an electrical outlet is overly simplistic. Owners and/or operators of public PEV charging stations provide owners and operators of PEVs with a cluster of related services that are distinct from simply selling electric power and energy. These services include the use of a physical location or parking place for the electric vehicle, the use of the charging station facilities themselves and access to a source of electricity in a variety of voltages and currents.”⁷

ComEd’s characterization of the different ways it is possible to look at PEV charging infrastructure shows that the utilities and stakeholders need to come to an agreement on how to define terminology at upcoming Policy Meetings. ComEd defined “charging stations” in its PEV Assessment as “stand-alone Level 1 and Level 2 electric vehicle supply equipment (“EVSE”).”⁸ ComEd also differentiated between Level 1 and Level 2 charging stations: “EV manufacturers will offer 120v charging (i.e. Level 1) as the standard, but the vehicles will also be capable of 240v (i.e. Level 2) charging.”⁹ The utilities and stakeholders should consider using ComEd’s definition of “charging station” as well as Level 1 and a Level 2 charging stations at the next Policy Meeting.

II. In order to facilitate the charging of electric vehicles that provides the maximum societal environmental and economic benefits, what modifications (if any) should be made to existing utility rates? In addition, what metering options and charges should be considered while taking into account the existence of competitive retail suppliers?

⁷ ComEd Assessment at 29.

⁸ *Id.* at 7.

⁹ *Id.* at 8.

The Residential Real Time Pricing (“RRTP”) programs offered by ComEd and Ameren would deliver the maximum economic and environmental benefits to new PEV owners, and more broadly to all Illinois ratepayers. ComEd estimates PEV charging customers could save between 27-67% on hourly prices than on a flat rate.¹⁰ How effectively early PEV adopters are connected with real-time rates will also determine how great of a strain PEVs have on the grid and on generation sources.

One of the most pressing issues for the Commission and stakeholders is to find the most direct and least cumbersome process for connecting PEV owners with real time rates. To ensure early adopters have a positive customer experience, CUB’s initial comments recommend that one of the first steps taken in a workshop or other process would be to detail “from a customer’s perspective, all of the steps that have to be taken from vehicle purchase to receiving the first bill for charging from the utility,” as well as “all associated timelines, communications channels, and interactions that the customer would encounter.”¹¹ In their initial comments, CNT Energy and I-Go stressed the importance of utility coordination with other parties involved in the PEV market, including “EV dealers, manufacturers, municipalities, car sharing programs, leasing companies, and fleet owners,” in order to “create a coordinated process that ensures advance notification, customer education and sign-up for applicable rate plans as well as expediting any required transformer upgrades, household electrical upgrades and the permitting required for the installation of charging equipment.”¹² This process would ensure that necessary grid and household upgrades are made for safety and reliability, and that customers are connected with resources and information necessary to make informed choices about how and when to charge their PEVs.

CUB recommends the Commission and stakeholders explore the following options related to PEV RRTP rates in a workshop process:

¹⁰ *Id.* at 10.

¹¹ CUB Initial Comments at 3.

¹² CNT Energy / I-GO Car Initial Comments at 4.

- *A default/opt-out RRTP rate for PEV owners.* An opt-out rate would simplify the interconnection process and automatically enroll PEV owners on the rate that will be the most beneficial for the majority of customers. However, it is critical that trained professionals who already specialize in helping customers understand real time prices handle education, communication, and price support for PEV owners. Customers should also be clearly informed of their right to receive budget billing for taking this service because the wholesale market price of electricity fluctuates seasonally, which might be a concern for participants.¹³
- *A waiver of the Integrated Distribution Company ("IDC") rules for RRTP.* The IDC rules prohibit the promotion, marketing, or advertising with regard to the provision of electric supply service. CUB would consider supporting a limited waiver of these rules to enable the utilities to better inform PEV customers about RRTP programs. The recently opened dockets to evaluate the net benefits of ComEd's Real Time Pricing Program (11-0546) and Ameren's Power Smart Pricing Program (11-0547) present an opportunity to incorporate PEV charging considerations into these existing programs.
- *PEV dealership education.* Reaching PEV customers at the point of sale of the vehicle could be an efficient and effective way to inform consumers about rate options. Many dealerships may find it advantageous to promote real time rates since the potential savings in the program make purchasing a PEV a more cost-effective option. CUB recommends exploring options for reaching out to dealerships to include them in the customer education process.
- *Consumer education.* As in the existing RRTP programs, the Commission should require the utilities to retain independent professionals who specialize in providing education about dynamic prices and communicating price signals to consumers for PEV customers on real

¹³ To be clear, CUB does not support opt-out RRTP for any other purpose. PEV early adopters are anticipated to be more environmentally conscious and aware, with the capacity to absorb short-term swings in their electricity bills. These qualities make them ideal candidates for aggressive dynamic prices, such as RRTP. There is also an equity issue, real time prices will discourage peak charging which could add significant system upgrade costs that would ultimately be born by all customers.

time rates. It is crucial for the success of the PEV market for consumers to have a trustworthy source of information about PEV charging outside of the dealership and the utilities. Additionally, the RRTP programs provide valuable data about consumer behavior and preference, and have proven to be an opportunity to inexpensively and unobtrusively gather information about PEV charging considerations we will need to address going forward as the market grows.

III. What cost causation and rate design modifications will be required to handle distribution upgrades for increased penetration of higher voltage at-home charging? Which costs, if any, should be socialized and why (rationale, benefits, etc.)? Assuming there are costs to be socialized, what are the proper methods for such allocation?

At this time, CUB sees no reason to modify the existing cost causation practices to accommodate increased load from PEV charging, and agrees with ELPC that it “would not be fair, consistent, or appropriate to treat PEVs any differently than any other consumer appliance for purposes of cost causation.”¹⁴ If PEV customers are either placed on real time rates or informed about their option to charge at off peak times on real time rates, any negative distribution impacts and infrastructure costs resulting from PEV charging would be minimized. Therefore there would be no reason to make any other rate design modifications at this time. If, as projected, in several years there are significant numbers of PEV charging stations and vehicles which do in fact require changes in the distribution infrastructure, the recovery of associated costs can be examined in a utility rate case or rate design investigation.

IV. Conclusion

¹⁴ ELPC Supplemental Comments at 7.

As stated in CUB's initial comments, it is most important that early adopters of PEV technology have a positive experience. To that end, CUB recommended the Commission adopt the following Policy Statement on PEVs:

“GOAL: It is the Commission's goal to enhance the experience of initial PEV adopters by simplifying the interconnection of PEVs. The Commission believes that positive experiences by early PEV adopters will result in improved customer awareness and increase manufacturer interest in deploying PEVs in Illinois. Utilities and other stakeholders in Illinois should keep the customer experience with PEVs at the forefront of their thinking throughout this important process.”¹⁵

¹⁵ CUB Initial Comments at 2