



October 19, 2020

Via Electronic Mail

Aida Camacho-Welch
Secretary of the Board
NJ Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, NJ 08625-0350

**Re: In the Matter of the Petition of Atlantic City Electric Company for Approval of a
Voluntary Program for Plug-In Vehicle Charging
BPU Docket No. EO18020190**

Dear Secretary Camacho-Welch:

On behalf of Natural Resources Defense Council, Environment New Jersey, Sierra Club, Tri-State Transportation Campaign, New Jersey Work Environment Council, GreenFaith, and Isles, please find enclosed the Rebuttal Testimony of Kathleen Harris in the above-referenced matter. Copies of this Rebuttal Testimony of Kathleen Harris are being provided to all parties on the service list by electronic mail only.

Please acknowledge receipt of this Rebuttal Testimony of Kathleen Harris.

Respectfully submitted,

/s/ William D. Bittinger

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Enclosure

Cc: Service list

**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

**In the Matter of the Petition of Atlantic City)
Electric Company for Approval of a)
Voluntary Program for Plug-In Vehicle)
Charging)
_____)**

Docket No. EO18020190

REBUTTAL TESTIMONY OF KATHLEEN HARRIS

ON BEHALF OF

**NATURAL RESOURCES DEFENSE COUNCIL, ENVIRONMENT NEW JERSEY,
SIERRA CLUB, TRI-STATE TRANSPORTATION CAMPAIGN, NEW JERSEY WORK
ENVIRONMENT COUNCIL, GREENFAITH, AND ISLES**

October 19, 2020

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1 **I. INTRODUCTION**

2 **Q. Please state for the record your name, position, and business address.**

3 A. My name is Kathleen Harris. I am employed by the Natural Resources Defense Council
4 (“NRDC”) as a Clean Vehicles and Fuels Advocate. My business address is 40 W 20th Street,
5 New York, New York 10011.

6 **Q. What is the purpose of your testimony?**

7 A. I am testifying on behalf of the Natural Resources Defense Council, Environment New Jersey,
8 Sierra Club, Tri-State Transportation Campaign, New Jersey Work Environment Council,
9 Greenfaith, and Isles (“Environmental and Community Groups”).

10 I am responding to certain issues raised in direct testimony filed by other witnesses in this
11 proceeding on September 18, 2020 regarding Atlantic City Electric Company’s (“ACE’s” or
12 “Company’s”) Voluntary Program for Plug-In Vehicle Charging. Specifically, I respond to:

- 13 • The testimony of Rate Counsel Witness Hausman concerning the recent Board
14 Order related to the role of utilities in reducing barriers to EV adoption and Dr.
15 Hausman’s claim that these programs will only benefit affluent New Jerseyans;
16 and
- 17 • The testimony of ChargePoint Witness Miller and Electrify America Witness
18 Shah concerning utility of ownership of charging stations in certain use-cases.

19 In addition to responding to issues raised by other parties in their Direct Testimonies, I also address
20 issues concerning the relevance of the Board’s Order Adopting the Minimum Filing Requirements
21 for Light-Duty, Publicly Accessible Electric Vehicle Charging (issued on September 23, 2020) to
22 this proceeding.

1 **Q. Please summarize your recommendations.**

2 A. I recommend that the New Jersey Board of Public Utilities (“BPU” or “Board”) approve the
3 Company’s proposed electric vehicle (“EV”) offerings, with modifications.

4 In my direct testimony, I argued that the Company’s proposal is an important first step to
5 removing barriers to EV adoption in the state, which in turn will provide economic and
6 environmental benefits to all New Jerseyans.¹ Upon reviewing the other direct testimonies in this
7 proceeding, almost all of the parties—which includes several charging station manufacturers – in
8 in this proceeding are also supportive of the Board approving the Company’s proposed EV
9 Programs, with modifications.²

10 Reducing greenhouse gas emissions in the transportation sector through EVs is
11 imperative to achieving New Jersey’s environmental goals, while also improving air quality and
12 improving the health of its residents. Utility programs, such as those proposed by ACE, are
13 necessary to support the growing EV market in the state and expand infrastructure needed to
14 support these vehicles. Further, as discussed in my direct testimony, utility programs can, and
15 should, be designed to reduce transportation pollution in disadvantaged communities.

16 The ACE proposal holistically approaches the challenges of electrifying the
17 transportation sector and will provide benefits to all customers – regardless of whether they drive
18 an EV – through downward pressure on rates and environmental and air quality benefits;
19 therefore, contrary to Rate Counsel’s arguments, it is appropriate to approve this ratepayer-
20 funded program.

21 **Q. Would you like to make any corrections to your direct testimony?**

¹ Harris Direct Testimony at 3.

² See, e.g. Electrify America Witness Shah at 6, Greenlots Witness Cohen at 5, ChargePoint Witness Miller at 4.

1 A. Yes. Upon submission of my direct testimony, I became aware of a discrepancy in my
2 calculations.³ I was unable to recreate the assumptions in EVI-Pro Lite to get the numbers cited in
3 my direct testimony, and therefore I realized that my direct testimony contained an error on the
4 projected number of charging stations that would be needed to support the state’s goal of 330,000
5 EVs on the road by 2025.

6 In actuality—using the same assumptions that New York State used for its EV make-ready
7 program⁴—EVI-Pro Lite shows that New Jersey will need over 48,000 Level 2 charging stations
8 in public and at workplaces as well as 1,364 Direct Current Fast Charging (“DCFC”) stations on
9 the road by 2025 to achieve and support the state’s EV goals.

10 However, it should be noted that these are only the numbers to support the state’s 2025
11 goals. If we project out to 2050, the New Jersey Department of Environmental Protection (“DEP”)
12 estimates that “the number of electric vehicles registered must increase from approximately 30,000
13 vehicles today to 1.8 million by 2030, 5.4 million by 2040 and over 6 million by 2050.”⁵

14 II. IMPORTANCE OF THE COMPANY’S PROGRAM

15 **Q. Do you agree with Greenlots Witness Cohen’s statement in his testimony that “ACE’s**
16 **proposed offerings represent a well-designed portfolio of targeted offerings to accelerate**
17 **transportation electrification”⁶?**

18 A. Yes.

³ Witness Harris at 6.

⁴ Inputs into EVI-Pro Lite are as follows: 330,000 electric vehicles, 25% PHEVs with 20-mile range, 20% PHEVs with 50-mile range, 10% BEVs with 100-mile range, 45% BEVs with 250-mile range, charging equipment for full support of PHEVs, 75% of vehicle owners with home charging capability; *See also* New York Public Service Commission Staff Whitepaper Regarding Electric Vehicle Supply Equipment and Infrastructure at 33, Case 18-E-0138, January 13, 2020.

⁵ <https://www.nj.gov/dep/climatechange/docs/nj-gwra-80x50-report-2020.pdf>

⁶ Greenlots witness Cohen Direct Testimony at 14.

1 **Q. What should a portfolio approach look like?**

2 A. As I stated in my direct testimony, utilities should take a portfolio approach to help address
3 the barriers to widespread EV deployment; this approach includes strategic infrastructure
4 deployment, increasing equitable access to the EV market, managing load and maximizing fuel
5 cost savings, and education and outreach.⁷ The Company's proposal, as Mr. Cohen states, takes
6 this portfolio approach, as it looks holistically at the EV market and its challenges, and strives to
7 take steps to overcome barriers to widespread market integration needed for the state to achieve
8 its goals.

9 To ensure that utility investments are helping to support low- and moderate-income
10 ("LMI") and Environmental Justice ("EJ") communities, I recommend that the Board also
11 consider directing the Company to designate a certain percentage of investments into these
12 communities, as New York and California have recently done.⁸

13 The Company's proposed program aligns with the State's stances that additional support
14 is needed for transportation electrification, and steps need to be taken now to increase the
15 number of vehicles on the road as quickly as possible.⁹

16 **Q. What are your thoughts on Witness Miller's comment that "BPU remove the set point**
17 **subsidy and order ACE to develop and file one or more long-term C&I rate options that**
18 **provide alternatives to traditional, demand-based C&I rates"**¹⁰?

⁷ Witness Harris Direct Testimony at 17-18.

⁸ See: Baumhefner, Max, "*Newsom Signs Law to Clean Air Inside and Out of School*." NRDC, October 2020. Available at: <https://www.nrdc.org/experts/max-baumhefner/california-adopts-bill-clean-air-inside-and-out-school>; See also: New York Public Service Commission Staff Whitepaper Regarding Electric Vehicle Supply Equipment and Infrastructure at 33, Case 18-E-0138, January 13, 2020

⁹ <https://www.nj.gov/dep/climatechange/docs/nj-gwra-80x50-report-2020.pdf>

¹⁰ Witness Miller at 46.

1 A. I agree with this assessment. In my direct testimony, I discussed the Pacific Gas & Electric
2 (“PG&E”) approved cost-based rates and encouraged the Board to “require the utilities under its
3 jurisdiction to propose comparable, long-term, comprehensive rate design solutions”¹¹ I
4 additionally cited the recent Synapse report on best practices for C&I rates for EVs, which
5 provides important guidance on how to best address EV charging for both DCFC and to support
6 electric medium- and heavy-duty (“M&HD”) vehicles.¹²

7 In his testimony, Tesla Witness Ehrlich suggests that “ACE should commit to designing a
8 permanent EV rate after data has been collected over the five-year PIV program period for
9 Offering 9.”¹³ While I agree that the Company needs to consider additional C&I EV rates, I do
10 not agree that the Company should wait five years to implement this rate. Waiting an extended
11 period of time to implement rates will create a situation in which the benefits of a well-designed
12 rate – including possible cost savings to the customer, as well as grid benefits from incentivizing
13 charging at off-peak hours—won’t fully be realized by all customers. Additional discussion on
14 rate design can be found further within this rebuttal testimony.

15 **Q. On September 23, the Board issued a final order on the EV Straw Proposal (“EV**
16 **Ecosystem Order”)** that states Staff’s belief that “Residential charging incentives should
17 **not duplicate state incentives, but proposals may include programs to address targeted**
18 **areas of need.”**¹⁴ **Are the Company’s proposed program offerings duplicative of other New**
19 **Jersey Programs?**

¹¹ Witness Harris at 29.

¹² *Id.* at 10.

¹³ Tesla witness Ehrlich at 6.

¹⁴ BPU Docket No. Q020050357, September 23, 2020. Available at:
<https://www.state.nj.us/bpu/pdf/boardorders/2020/20200923/8F%20-%20ORDER%20Electric%20Vehicle%20MFRs.pdf>

1 A. No, they are not. The Company’s proposed Offerings provide demand charge off-sets and
2 incentivize charging during off-peak hours—something that that only utilities and electricity
3 suppliers can offer. The rebates for the “smart” charging stations provided in these offerings
4 allow for the Company to implement demand charge incentives to customers and shift charging
5 to off-peak hours without the need to install a potentially expensive second meter. Further, to
6 my knowledge there is no rebate available in New Jersey for Level 2 charging stations at
7 residential properties, which the Company is proposing in its residential smart charging program.
8 It is not duplicative for such offerings to address rate issues with charging simply because the
9 DEP has a program to offer rebates for charging stations under the It Pay\$ to Plug In program.
10 Unlike the Company’s Offerings in question, the DEP program only provides rebates for
11 workplaces, multi-unit dwellings (“MUDs”), and public locations, without contemplating the
12 critical need for grid management.

13 Further, the Board should not pre-judge future EV programs in the abstract or assume
14 what future programs may be developed in New Jersey. At this moment, several executive
15 agencies – including BPU, DEP, and EDA – are developing programs to increase the number of
16 EVs on New Jersey’s roads, as well as increase charging infrastructure. However, many of those
17 efforts do not yet have concrete proposals. As discussed in my direct testimony, there are
18 important societal, economic, and environmental benefits associated with EVs, and in order to
19 meet the fast timeline for and ambitious goals of vehicle electrification that New Jersey has set, it
20 makes little sense to delay consideration of elements set forth in these offerings because of the
21 possibility that other agencies *might* develop programs that *might* overlap and would thwart the
22 state’s efforts in a way contrary to this Board’s own directives.

1 **Q. In your direct testimony, you discussed in detail the importance of rate design to**
2 **maximize benefits and minimize effects on the grid.¹⁵ Do other parties support this view?**

3 A. Yes. Several other parties to this proceeding mentioned the importance of sustainable rate
4 design in their testimonies.¹⁶ To obtain the same net benefits that utility customers in California
5 have realized, it is important that New Jersey consider rates to shift charging to off-peak hours,
6 as the Company has done in several of its proposed Offerings.¹⁷

7 As I noted in my direct testimony, it does not appear that MUDs, workplaces, or fleets
8 are eligible for the time-of-use (“TOU”) rates available to residential customers. I strongly
9 encourage the Company to expand—and the Board to approve—this offering to the
10 aforementioned use cases as well.¹⁸ As the EV Ecosystem Order notes, residents at MUDs need
11 to be able to access rates similar to traditional residential customers¹⁹; thus, it is imperative that
12 these customers are able to access similar TOU programs available to drivers at single-family
13 homes.

14 **III. RESPONSE TO RATE COUNSEL WITNESS HAUSMAN**

15 **Q. Do you agree with Rate Counsel Witness Hausman that the “Board [should] deny**
16 **ACE’s petition in its entirety”²⁰?**

17 A. I strongly disagree with Dr. Hausman’s recommendation that the Board should deny all the
18 Company’s proposed EV offerings. It appears that Dr. Hausman’s justification to reject the

¹⁵ Witness Harris at 21-31.

¹⁶ See: Tesla Witness Ehrlich at 17, Greenlots Witness Cohen at 30, ChargePoint Witness Miller at 46.

¹⁷ Company proposed Offerings 1-3.

¹⁸ This is also recommended by Witness Cohen in his direct testimony (“encourages the Board and ACE to consider how to expand its technology-facilitated managed charging solutions beyond Offering 3 to other offerings such as the longer dwell-time Commercial offerings and the public charging offerings, in order to further pilot and explore these benefits across different customer segments and use cases”) at 30.

¹⁹ EV Ecosystem Order at 4.

²⁰ Rate Counsel Witness Hausman at 5.

1 Company's petition is specifically tied to the EV Straw Proposal developed by the BPU Staff.²¹
2 Dr. Hausman states that it would be "premature" to rule on the Company's offerings before a
3 final ruling on the Straw Proposal is released. However, this argument is now moot. On
4 September 23, 2020, the BPU released an order on the EV Ecosystem proposed in the Straw
5 Proposal.²² This Order makes plain that utilities *do* have an important role in supporting the EV
6 market in New Jersey, which will help the state to achieve the goals of the Energy Master
7 Plan."²³

8 **Q. Does the EV Ecosystem Order affect ACE's proposed program?**

9 A. The EV Ecosystem Order develops minimum filing requirements for utilities to propose no
10 later than February 28, 2021. In the Order, the Board states that utilities with current filings in
11 front of the Board do not need to refile their offerings, and instead directs Staff "to use this Order
12 to inform its position on any *current* or future proposals."²⁴ ACE has, in fact, already met many
13 of the minimum filing requirements outlined in the EV Ecosystem Order, including:

- 14 • A shared responsibility model with respect to Publicly-Accessible EV Charging
15 Infrastructure (Offering 9);
- 16 • Proposed rate structure to address:
 - 17 ○ Demand charges (Offerings 4-6 and 9);
 - 18 ○ Residential EV charging(Offerings 1-3); and
 - 19 ○ Multi-family dwellings rates (Offering 4);

²¹ EV Straw Proposal, Docket # QO20050357: In the Matter of Straw Proposal On Electric Vehicle Infrastructure Build Out, May 18, 2020.

²² BPU Docket No. QO20050357, September 23, 2020. Available at: <https://www.state.nj.us/bpu/pdf/boardorders/2020/20200923/8F%20-%20ORDER%20Electric%20Vehicle%20MFRs.pdf> [hereinafter "EV Ecosystem Order"].

²³ *Id.* at 24.

²⁴ *Id.* at 26 (emphasis added)

- Proposed rate structures that encourage networked, managed charging (Offerings 4-6 and 9);
- Proposals that provide equitable access to the EV Ecosystem in overburdened communities (Offerings 4 and 10-12); and
- Outreach and education plans (included in the Company’s proposed program).

Q. Can utilities propose offerings outside the scope of the EV Ecosystem Order?

A. Yes, they can. The Order states that utilities should “incorporate the minimum requirements contained herein, *including, but not limited to*”²⁵ those requirements. The Board thus correctly recognizes the need for flexibility for utilities to propose programs beyond the direct confines of the EV Ecosystem Order. Considering that the Atlantic City Electric PIV program was filed well in advance of the EV Straw Proposal or EV Ecosystem Order,²⁶ I strongly encourage the Board to consider approving the other components of the Company’s EV offerings that may be outside the limited scope of the EV Ecosystem Order.

Q. Dr. Hausman claims that the Company “cannot demonstrate that the areas it has identified would not otherwise be served by the private sector; nor has the Board yet established procedures for identifying such locations, or defined the ‘party of last resort’ role for utilities”²⁷ How do you respond?

A. I do not agree with Dr. Hausman’s assessment that it is somehow unclear where there are areas that have not been serviced by the private sector. As I highlighted in my direct testimony,

²⁵ *Id.* (emphasis added)

²⁶ The ACE PIV Program was originally filed on February 22, 2018. On December 17, 2019, the Company filed an Amended Petition with the Board.

²⁷ Witness Hausman at 43.

1 we can easily see where there are gaps in EV infrastructure.²⁸ To be blunt, the market is failing,
2 and has been failing for decades.²⁹

3 **Q. Please discuss your concerns about the EV Ecosystem Order’s “Last Resort” guidance**
4 **for utility ownership.**

5 A. The EV Ecosystem Order states that “the Board should require case-by-case determinations of
6 whether a utility may own chargers in an area of Last Resort,”³⁰ and provides a series of non-
7 exclusive criteria for consideration:

- 8 • *Whether the proposed charging site is more than 25 miles from another charging*
9 *station;*
- 10 • *For overburdened communities, whether the utility has had a minimum of 12 months*
11 *of no expressions of interest from private owners of EVSE;*
- 12 • *For non-overburdened communities, whether the utility has had a minimum of 18*
13 *months of no expressions of interest from private owners of EVSE;*
- 14 • *Density of the area; and*
- 15 • *Other factors that the EDC may determine are relevant to why utility ownership is*
16 *appropriate.*³¹

17 A needlessly rigid application of all these criteria would further reduce access to EV
18 charging for disadvantaged communities by failing to recognize that nearly all areas are currently
19 underserved. In addition, given the slow pace of adoption for electric vehicles of all types and
20 the need to increase electrification of the vehicle fleet to meet New Jersey’s ambitious climate
21 and emissions reduction goals, the Board and the Company must work to accelerate

²⁸ Witness Harris at 33.

²⁹ Harris at 23.

³⁰ EV Ecosystem Order at 12.

³¹ *Id.*

1 infrastructure development – and vehicle deployment, as a result. The State needs an “all hands-
2 on deck” solution in order to successfully transform the market.

3 For example, there is a Tesla Level 2 station installed at the Golden Nugget Casino Hotel
4 in Atlantic City,³² less than 25 miles away from multi-unit dwellings in Ocean City; failure to
5 apply a case-by-case assessment of charging needs would mean that those MUDs would be
6 unable to apply for utility ownership of a charging station for their residents. As I recommended
7 in my direct testimony, the Company *should* deploy chargers in places like MUDs in Ocean City.
8 Further, the geography of New Jersey isn’t that extensive—it is only 70 miles wide and 150
9 miles long. Thus, a dogmatic adherence to the 25-mile guideline would mean that very, very few
10 areas would be eligible to install EVSE through a utility program, even if third-party charging
11 companies continue to ignore such areas for development. This could have negative effects on
12 the EV market, as it would prevent the utility from installing charging stations to fully fill the
13 gaps that have been left unfilled for decades by third-party charging companies.

14 As expressed in more detail in my direct testimony, utilities have an important role to
15 play to fill the gaps in infrastructure deployment in the state, especially at multi-unit dwellings,
16 where we see there is a market failure. The Company should not go backwards in time—the
17 issues of utility ownership have been litigated and discussed for years in other jurisdictions.³³
18 Instead, the Board and Company should take into consideration the recent lessons learned and
19 experiences of other utilities who have decided to institute less draconian rules.

³² PlugShare.com, accessed on October 7, 2020.

³³ See: Delaware Public Service Commission Order No. 9357 (Docket No. 17-1094), Colorado Senate Bill 19-077, California Application 18-06-015 “*Decision Authorizing Southern California Edison Company’s Charge Ready 2 Infrastructure and Market Education Programs*.”

1 **Q. How do you respond to Witness Hausman’s assertion that “the Company’s proposals**
2 **raise significant equity and free ridership issues”³⁴?**

3 A. I respectfully disagree, while noting that equity considerations are a primary consideration
4 for Environmental and Community Groups. As I discussed in my direct testimony, EVs, when
5 integrated properly into the electric grid, provide real and proven benefits to all customers,
6 regardless of whether they drive an EV.³⁵ ChargePoint Witness Miller also expressed a similar
7 sentiment in his direct testimony: “Increased deployment of EV charging infrastructure can
8 create sufficient new load to reduce unit energy costs, resulting in lower electricity rates and net
9 benefits for all ratepayers, irrespective of EV ownership.”³⁶ However, to achieve these benefits,
10 as many intervenors discussed in their direct testimonies, it is vitally important for the Board to
11 approve programs that help to shift charging to off-peak hours, as several of the Company’s
12 proposed offerings do.³⁷

13 As I discuss further in this rebuttal testimony, it is important for the Company and Board
14 to consider additional programs to provide clean transportation access to all customers. In so
15 doing, EVs can improve air quality for the entire state, especially for residents of environmental
16 justice communities who are most burdened by high levels of particulate and smog pollution and
17 all the concomitant respiratory diseases and other disparate health problems such pollution
18 causes.

19 In its EV Ecosystem Order, the Board notes that “multiple approaches are required to
20 ensure that overburdened communities are included in EV adoption measures.”³⁸ The

³⁴ Rate Counsel Witness Hausman at 6.

³⁵ Witness Harris at 11.

³⁶ Witness Miller at 17.

³⁷ *Id.*

³⁸ EV Ecosystem Order at 3, (Sept. 23, 2020).

1 Company's filing starts to do this by including additional initiatives to provide clean
2 transportation for all, such as the proposed offering to support medium- and heavy-duty vehicle
3 electrification. Electrifying these vehicles has the potential to benefit the millions of New
4 Jerseyans who live near highways that bear the brunt of the effects of congestion or by ports,
5 freight transfer stations, and bus depots. Fully electrifying the transportation sector, combined
6 with initiatives to reduce overall vehicle miles traveled, will result in zero tailpipe emissions
7 from the transportation sector in these areas. According to New Jersey DEP, reducing diesel
8 soot by 20 percent would prevent 16,000 asthma attacks and 1,800 emergency-room visits a
9 year.³⁹ Further, the air quality benefits would be especially pronounced in low-income and
10 environmental justice communities.⁴⁰

11 These types of benefits are exactly what the Board contemplated in its own order when it
12 stated that, "The Legislature and the Governor have made it clear that in order to combat the
13 consequences of climate change, the electrification of the transportation sector is in the public
14 interest. All of New Jersey — its residents, its businesses, its economy, its environment — will
15 benefit from the widespread adoption of EVs."⁴¹

16 **Q. Does Dr. Hausman acknowledge that the Company's EV offerings provide benefits to**
17 **ACE's Customers?**

18 A. Yes. Dr. Hausman admits in his testimony that "there are elements of the Company's PIV
19 proposals that may provide benefits for New Jersey and New Jerseyans."⁴² Regarding Offerings
20 1 and 2, Dr. Hausman states that "[t]hese proposed offerings appear to be worthwhile

³⁹ <https://www.stopthesoot.org/dieselhealthconcerns.htm>

⁴⁰ See Gabel Associates, Inc., *Full Market Vehicle Electrification in New Jersey: The Opportunities, Impacts and Net Benefits for Light-, Medium-, and Heavy-Duty Electric Vehicles* (prepared for ChargeVC) (Oct. 7, 2020) at 65, available at <http://www.chargevc.org/wp-content/uploads/2020/10/ChargeVC-Full-Market-Electrification-Study-FINAL-Oct-7-2020.pdf>.

⁴¹ EV Ecosystem Order at 3, (Sept. 23 20).

⁴² Rate Counsel Hausman at 6.

1 subprograms that could provide benefits for participants and nonparticipants alike,”⁴³ a
2 concession that undercuts his argument that the Company’s proposals will give rise to free
3 ridership.

4 **Q. Dr. Hausman expresses concerns over the Company’s Offerings 3 and 4, stating that**
5 **they are not consistent with the shared-responsibility model from the EV Straw Proposal.**⁴⁴
6 **Do you agree?**

7 A. No. As I previously discussed, while some of the Company’s proposed offerings do provide
8 rebates for charging stations, the intent and function behind these programs are different from
9 anything offered by NJ DEP, for example. The effect of the Company’s relevant offerings end
10 result is that the programs are intended to 1) provide customer choice in how to participate in
11 off-peak charging opportunities; 2) shift charging to off-peak hours without the need for a second
12 meter; and 3) help to support charging at MUDs. This is entirely consistent with the shared-
13 responsibility model in the Board’s EV Straw Proposal (and EV Ecosystem Order)—these
14 offerings help ensure that the benefits of vehicle electrification flow to all customers and do so in
15 ways that a utility is uniquely able to effectuate.

16 **Q. Do you agree with Witness Hausman’s recommendation that the Company develop EV-**
17 **specific rates for C&I customers?**⁴⁵

18 A. Yes.

19 **Q. Dr. Hausman claims that aspects of the Company’s Proposal “seem likely to do little if**
20 **anything to promote additional PIV ownership.”**⁴⁶ **Do you agree?**

⁴³ *Id.* at 37.

⁴⁴ *Id.* at 38-40

⁴⁵ *Id.* at 6.

⁴⁶ Witness Hausman at 13.

1 A. No. Though modifications may be needed, the proposal as a whole will promote additional
2 EV ownership. As I stated in my direct testimony, EVs can provide significant fuel cost savings
3 for drivers, which is one of the main motivators for purchasing EVs.⁴⁷ With the Company's
4 proposed offerings, which are, in part, designed to shift charging to off-peak hours, these cost
5 savings will be realized by drivers, and will therefore help to improve and incentivize EV
6 ownership.

7 Several other parties in this proceeding have also highlighted the importance of shifting
8 charging to off-peak hours. For example, Mr. Cohen of Greenlots noted that "growing the
9 installed fleet of charging stations, utility investment and ownership will help spark EV
10 purchasing decisions, accelerate adoption and grow the total customer base."⁴⁸

11 Mr. Cohen's testimony correctly identifies a key barrier to EV adoption: charging
12 infrastructure. As identified by the EMP, as well as the Board in its EV Ecosystem Order, the
13 lack of EV charging infrastructure is part of a "chicken-and-egg" problem (discussed in more
14 detail in my direct testimony).⁴⁹

15 **Q. In addition to supporting EV sales, do utility EV programs also support the grid?**

16 A. Yes. Dr. Hausman suggests that the only role of EV programs by utilities is to help increase
17 EV sales in ACE's service territory.⁵⁰ While this is an important role for utilities, it is by no
18 means the *only* role for utilities. Several of the proposed ACE offerings have dual purposes—to
19 support EV sales, while also helping to shift charging to off-peak hours to support the grid.
20 Further, the Company's proposed Innovation Fund and NJ Transit Electrification offerings are
21 designed to help bring electrification to all customers, regardless of whether they drive an EV.

⁴⁷Harris at 22.

⁴⁸ Witness Cohen at 22.

⁴⁹ .Harris at 5

⁵⁰ Witness Hausman at 25.

1 Shifting charging to off-peak hours is not free-riding, as suggested by Dr. Hausman⁵¹; rather, as
2 previously discussed, it helps to provide benefits to all customers.

3 **Q. In his direct testimony, Dr. Hausman claims that demand charges are necessary, and**
4 **that “[m]uting this market signal would compromise th[e] opportunity” for hypothetical**
5 **private sector solutions.⁵² How do you respond?**

6 A. While I recommend that the Company modify its strategy to alleviate the concerns associated
7 with demand chargers by considering long-term solutions,⁵³ I strongly disagree with Dr.
8 Hausman’s assertion that demand charges are necessary. Demand charges as they currently
9 stand can make public DCFC stations uneconomical, stifling the competitive market’s ability to
10 expand infrastructure throughout the state.⁵⁴ Without some modification to rates for DCFC, it is
11 unlikely that New Jersey will achieve the scale of infrastructure necessary to achieve its goals.
12 Additionally, the EV Ecosystem Order clearly states that “Staff agrees that demand charges are
13 an obstacle to EV adoption, and this Board Order requires that EDC filings include a proposal to
14 address how to minimize the barriers to EV adoption created by demand charges.”⁵⁵

15 **Q. In your opinion, are EV’s currently for sale in the United States limited to “Luxury**
16 **Vehicles,” as Witness Hausman claims?⁵⁶**

17 A. No. Currently available brand-new EV models start as low as \$32,000⁵⁷ before federal and
18 state incentives, while the average price of a luxury sedan is typically closer to \$55,000.⁵⁸ In fact,

⁵¹ *Ibid.*

⁵² *Id.* at 45.

⁵³ Witness Harris at 28.

⁵⁴ *See*: Witness Shah at 4, Witness Miller at 40.

⁵⁵ EV Ecosystem Order at 10.

⁵⁶ Witness Hausman at 18.

⁵⁷ For example, the Nissan Leaf S starts at \$31,600 *See*: <https://www.nissanusa.com/vehicles/electric-cars/leaf/specs/compare-trims.html>.

⁵⁸ There are several metrics the automotive industry uses to classify “luxury” vehicles. Kelly Blue Book indicates that the average luxury car segment is approximately \$55,000. *See* <https://www.kbb.com/reviews/midsize-luxury->

1 the New Jersey legislature specifically excluded luxury vehicles from the PIV Act by limiting the
2 rebate to only those vehicles with a Manufacturer Suggested Retail Price (“MSRP”) below
3 \$55,000.⁵⁹ With the incentive provided by the Board under the “Charge Up New Jersey”
4 program⁶⁰, several EVs can be purchased or leased at a cost below \$32,000,⁶¹ – well below the
5 average price of a new car in the United States, which various sources estimate is between
6 \$33,000 and \$37,000.⁶² As I noted in my direct testimony, there is a growing market for
7 secondary EVs—at prices at or below other used car prices.⁶³

8 **Q. Would ACE’s proposed program offerings only be useful to a small subset of more**
9 **affluent customers?**

10 No. ACE’s proposed program offerings would provide benefits to all ACE ratepayers, whether
11 or not those ratepayers directly participate. First, as stated above, EVs are already similar in cost
12 to the average new car, rather than a luxury vehicle. Therefore, I disagree with the assertion of
13 Dr. Hausman that only more affluent NJ residents can afford EVs. To the extent that an ACE
14 customer were in the position to purchase or lease a new car, he/she would be able to choose an
15 EV as well. Additionally, EVs have significantly lower life-cycle costs compared to gasoline
16 vehicles due to reduced fueling costs and less maintenance—providing additional cost savings

*[cars-
new/#:~:text=The%20average%20transaction%20price%20for,selling%20price%20of%20around%20%2455%2C
000.](#)* Alternatively, Kelly Blue Book found that by segment, the average transaction January 2020 transaction price
for the “Luxury Car” segment was \$62,933 *See*, [https://www.prnewswire.com/news-releases/average-new-vehicle-
prices-up-3-5-year-over-year-in-january-2020-on-sales-mix-according-to-kelley-blue-book-301007102.html](https://www.prnewswire.com/news-releases/average-new-vehicle-prices-up-3-5-year-over-year-in-january-2020-on-sales-mix-according-to-kelley-blue-book-301007102.html)

⁵⁹ Plug-In Electric Vehicles Act (“PIV Act”),” P.L. 2019, c. 362, codified at N.J.S.A. 48:25-1 et seq.

⁶⁰ <https://chargeup.njcleanenergy.com/>

⁶¹ Examples of vehicles that are under 30,000 with the New Jersey vehicle rebate include: the Nissan Leaf
(<https://www.nissanusa.com/vehicles/electric-cars/leaf/specs/compare-trims.html>), Chevy Bolt
(<https://www.chevrolet.com/electric/bolt-ev>), Fiat 500e (<https://www.fiatusa.com/500e.html>) , Hyundai Ioniq
(<https://www.hyundaiusa.com/us/en/vehicles/ioniq-electric>) .

⁶² In January 2020, the average transaction price for a new full-size car was \$36,437. *See*,
[https://www.prnewswire.com/news-releases/average-new-vehicle-prices-up-3-5-year-over-year-in-january-2020-on-
sales-mix-according-to-kelley-blue-book-301007102.html](https://www.prnewswire.com/news-releases/average-new-vehicle-prices-up-3-5-year-over-year-in-january-2020-on-sales-mix-according-to-kelley-blue-book-301007102.html)

⁶³ Witness Harris at 15-16.

1 for New Jerseyans and helping to further reduce transportation costs.⁶⁴ ACE's proposed offerings
2 extend beyond just EVs by supporting the electrification of NJ Transit and potentially other
3 medium- and heavy-duty vehicles through the Innovation Fund, which would provide benefits
4 for all New Jerseyans. Finally, ACE's offerings that will help shift charging to off peak hours
5 can help to provide benefits to all customers by placing significant downward pressure on rates.⁶⁵

6 **IV.RESPONSE TO CHARGEPOINT WITNESS MILLER, AND ELECTRIFY**
7 **AMERICA WITNESS SHAH ("EVSE PROVIDERS")**

8 **Q. How do you respond to Witness Miller's statement that "Utility ownership and**
9 **operation of charging infrastructure can have a detrimental impact on the competitive**
10 **market, which can be avoided through alternative program designs"?⁶⁶**

11 A. I disagree. As I highlighted in my direct testimony, utility ownership of charging stations can
12 be vital in certain segments to stimulate and support the EV market. Greenlots Witness Cohen
13 appears to also agree with my perspective. In his direct testimony, Mr. Cohen stated that:

14 ACE's utility-owned public charging offerings (Offerings 7 and 8) represent a
15 modest, market-seeding, foundational network of public charging stations. ACE's
16 utility owned public DCFC proposal (Offering 7), in particular, comprises a small
17 percentage of what will be required in the coming years in a market segment not
18 adequately served by the private market. Importantly, ACE has designed this
19 offering to leverage some of the core competencies of the utility with respect to
20 ownership and maintenance of widely dispersed, long-lived electricity-dispensing
21 and metering equipment, and ensuring the safety and reliability of those assets,
22 providing a key value and market-supporting function that has historically been in
23 inadequate supply.⁶⁷

⁶⁴ <https://www.forbes.com/sites/jeffmcmahon/2018/01/14/electric-vehicles-cost-less-than-half-as-much-to-drive/#692b98423f97>

⁶⁵ Witness Harris at 11.

⁶⁶ ChargePoint Witness Miller at 31.

⁶⁷ Witness Cohen at 20.

1 Further, Tesla Witness Ehrlich concluded that he “do[es] not oppose utility ownership of
2 EVSE infrastructure in principle, but utility ownership warrants scrutiny and the development of
3 appropriate guardrails that ensure that private EVSE owners are not [at] an unfair disadvantage
4 to utility owned stations.”⁶⁸

5 Mr. Shah concedes that “[I]n today’s market, few owners of MUD buildings are willing
6 to install chargers.”⁶⁹ Based on the lessons learned from California,⁷⁰ in order to increase
7 adoption of chargers at MUDs, utility “turn-key” options are vital to support this segment.

8 **Q. Should utility ownership of charging stations be expanded to MUDs?**

9 A. Yes. Under the current offerings, the Company is only proposing to own Level 2 charging
10 stations at government-owned properties. However, as I have highlighted in my direct testimony
11 and here in this testimony, there is a clear market failure for charging stations at MUDs. EV
12 adoption needs orders of magnitude more charging stations than third parties have installed thus
13 far, despite having had years in which to do so. Utility participation—and ownership of charging
14 stations in certain use cases—is an absolute must in order to level the playing field for EVs
15 against the extensive gasoline infrastructure already in place in New Jersey. The Board should
16 look to other jurisdictions on utility ownership of charging stations, and the Company should
17 expand Offering 8 to include MUDs.⁷¹

⁶⁸ Witness Ehrlich at 12.

⁶⁹ Witness Shah pg. 12.

⁷⁰ Witness Harris at 35.

⁷¹ For example, the California Public Utilities Commission, in their approval of Southern California Edison’s Charge Ready 2 program, allowed the site hosts at MUDs to elect for utility ownership or a rebate for a charging station, without the need to go through a last-resort process
<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M345/K697/345697175.pdf> at 64

1 **Q. How do you respond to Electrify America Witness Shah who argues that DCFC stations**
2 **can support residents of multi-unit dwelling?**⁷²

3 A. DCFC stations are a nice complement and a potential substitute for on-site MUD charging at
4 places where it's not feasible. But it's still not established that DCFC are an acceptable substitute
5 for being able to charge at home—which, according to the U.S. Department of Energy, is where
6 80% of charging occurs.⁷³ EVGo Witness Ms. Dumit notes, that, “apartment dwelling EV
7 drivers, living in Multi-Unit Dwellings (MUDs) rely on public charging for 50-80% of their
8 charging.”⁷⁴ It is unfair that residents of MUDs would need to charge—potentially
9 inconveniently—in public.

10 In his testimony, Mr. Shah admits that “[b]ecause it is more difficult, if not impossible, to
11 install a home charger at a rental property or multi-unit dwelling, these trends create a significant
12 challenge to EV adoption in New Jersey.”⁷⁵ As the EV Ecosystem Order notes “charging
13 infrastructure must accommodate EV owners living in multi-family dwellings.”⁷⁶ Therefore, the
14 Board should not only think of how to ensure equitable access to public EV charging, but also
15 equitable access to *home* charging, and move forward with the assumption that people won't buy
16 an EV if they can't plug in where they live. To accomplish this, the Board needs to consider, and
17 allow for, utility ownership of charging stations at MUDs.

18 **Q. Mr. Miller claims that “Offering 4 should be modified to provide site hosts with the ability**
19 **to choose from multiple qualified vendors of EV charging network software in addition to the**
20 **choice of hardware.”**⁷⁷ What is your response?

⁷² Witness Shah at 11.

⁷³ <https://www.energy.gov/eere/electricvehicles/charging-home>

⁷⁴ EVGo Witness Dumit at 6.

⁷⁵ Electrify America Witness Shah at 14.

⁷⁶ EV Ecosystem Order at 4.

⁷⁷ Witness Miller at 29.

1 A. I disagree with Mr. Miller. In order for the Company to easily manage load and collect charging
2 data, it is important that there be unified software across all of the charging stations supported under
3 this program. If each site host has a different charging software, the administration of the program
4 could be overly burdensome and unfeasible.

5 Instead, to ensure the Company's program stays up to date on standards and technology, the
6 Board should require that "qualifying EVSEs actively utilize open access standards for
7 communication of data between the EVSE and the back-end network."⁷⁸ This would align with
8 language and requirements recently adopted by the California Public Utilities Commission.⁷⁹

9 This is essential because EV charging companies could potentially install EVSEs with
10 software that technically has or uses (i.e., is compatible with) open communications protocols such as
11 the Open Charge Point Protocol ("OCPP"), but which still require proprietary extensions that close
12 these EVSEs off from other networks. If the Board agrees with Mr. Miller's support of customer
13 choice of software, I recommend that the Company require software providers to meet certain
14 requirements before they're approved.

15 Alternatively, EV charging companies could install EVSEs with these capabilities, but have
16 this functionality turned off or disabled. In such cases, a charging company could potentially leave
17 the market and abandon the EVSE without activating the open standards, and other companies would
18 not be able to assume operation of the station. Accordingly, the Board should require that the EVSEs
19 not merely be compatible with open access standards for communication of data between the EVSE
20 and the back-end network, but that they have those open access standards installed and utilized on the
21 EVSE at the time of deployment.

⁷⁸ California A. 18-07-020

⁷⁹ *Id.*

1 **V.ADDITIONAL PROGRAM NEEDS**

2 **Q. The EV Ecosystem Order states that a new Straw Proposal focused on M&HD vehicle**
3 **electrification will be released in 2021. Should the Board still consider the M&HD vehicle**
4 **components outlined in the Company’s proposal?**

5 A. Yes. I was pleased to read that the Board plans to release additional guidance on M&HD
6 vehicle electrification in Fiscal Year 2021. However, considering the scale of electrifying the
7 M&HD vehicle sector—which includes significant variety in vehicle and fleet types—it is
8 imperative that the Board consider programs and initiatives to support these vehicles now.

9 As I discussed in my direct testimony, while the Company proposed modest M&HD
10 vehicle Offerings, more needs to be done to help the state achieve its greenhouse gas reduction
11 goals,⁸⁰ while also helping to improve air quality—especially in environmental justice (“EJ”) and
12 low- and moderate-income (“LMI”) communities.⁸¹

13 **Q. Should the Board develop rates for C&I customers that support the electrification of**
14 **M&HD vehicles?**

15 A. As discussed previously in this testimony, several other parties in this proceeding also
16 commented on the importance of considering long-term, sustainable rates for C&I customers.
17 While these arguments are mainly focused on resolving the demand charge issues associated
18 with DCFC, it is important to note that rates also need to be considered to support M&HD
19 vehicle fleets.

20 **Q. Do you have any thoughts on the Company’s proposed data collection and reporting?**

⁸⁰ Witness Harris at 71.

⁸¹ Indeed, the Board’s EV Ecosystem Order recognizes the importance of MHDV electrification to helping these communities [see Order Adopting the Minimum Filing Requirements for Light-Duty, Publicly-Accessible Electric Vehicle Charging at 7 (“Staff recognizes that equity is closely tied to the electrification of the medium- and heavy-duty sector”)], but nonetheless establishes a timeline whereby communities already devastated by air pollution are required to continue to wait for relief – a decision that is arguably out of step with the State’s adoption in September 2020 of Senate Bill 232, a nation-leading environmental justice law.

1 A. Yes. I am pleased to see that the Company is considering data collection during this program
2 as it can be used to monitor whether the program is successful, as well as to provide insight into
3 ways to improve the program in future iterations.

4 While the Company has indicated that it will provide periodic reports to the Board, I
5 encourage the Company to make these reports public—with confidential information redacted. In
6 California, for example, Southern California Edison files quarterly reports that are publicly
7 available for its Charge Ready Pilot program⁸²—providing open and transparent information to
8 its customers on the state of the program.

9 **Q. Do you have any additional thoughts on the Company’s proposed programs?**

10 A. Yes. To further support New Jersey’s economy and workers, the Board should require that all
11 installation and program implementation is completed by in-state union labor.

12 Building EV infrastructure should be covered by project labor agreements (“PLAs”).
13 PLAs can provide a contractor with a reliable and uninterrupted supply of qualified workers,
14 ensure projects are completed on time, may improve worker safety by requiring training
15 provisions, and may mean more construction jobs stay in the state and are good, family-
16 sustaining jobs. PLAs can provide the best value to rate payers and save money.

17 Maintenance and operation jobs should also be filled by in-state union labor. This applies
18 to charging stations owned by the utility and by third-party operators. If third-party operators are
19 not using union labor, at a minimum, they should be required to pay the prevailing wage and sign

⁸² *Ex. Charge Ready Pilot Quarterly Report*, August 2019. Available at https://www.sce.com/sites/default/files/inline-files/SCE%20Quarterly%20Charge%20Ready%20Pilot%20Report%202019%20Q2_WCAG_0.pdf

- 1 union neutrality agreements to give workers the option to join a union and bargain collectively.
- 2 There should also be a procurement program in place that prioritizes Buy American.⁸³

3 **VI. CONCLUSION**

4 **Q. Does this conclude your testimony?**

5 A. Yes.

⁸³ <https://www.gao.gov/products/105519>