

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES**

Petition of Massachusetts Electric Company)
And Nantucket Electric Company, each d/b/a)
National Grid pursuant to G.L. c. 164, § 94 and) D.P.U. 18-150
220 CMR 5.00, for Approval of General Increases)
in Base Distribution Rates for Electric Service)

CLEAN ENERGY PARTIES POST-HEARING REPLY BRIEF

Josh Berman, Esq., admitted pro hac vice
Sierra Club
50 F St. NW, 8th Floor
Washington, DC 20001
(202) 650-6062
josh.berman@sierraclub.org

Elisa J. Grammer
47 Coffin Street
West Newbury, MA 01985
(703) 855-5406
elisa.grammer@perennialmotion.com

Dated: July 16, 2019

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	ADDITIONAL EV CHARGING INFRASTRUCTURE IS CRITICAL TO ACHIEVEMENT OF THE COMMONWEALTH’S CLIMATE AND ZERO EMISSION VEHICLE COMMITMENTS AND UTILITIES HAVE AN IMPORTANT ROLE TO PLAY	3
	A. There Is No Dispute that Achieving Levels of EV Penetration Necessary to Comply with Massachusetts’ Climate and Transportation Obligations Will Require a Significant Increase in EV Charging Stations	3
	B. Utilities Have an Important and Additive Role in Helping to Achieve Needed Levels of EV Penetration	4
III.	ARGUMENT	5
	A. National Grid’s Phase II Program Meets the Three-part Approval Standard Set Forth in Order D.P.U. 13-182-A	5
	1. National Grid’s Proposal Is In the Public Interest	5
	2. National Grid’s Phase II Program Meets a Need Not Likely to Be Met by the Competitive EV Charging Market	7
	3. National Grid’s Phase II Program Will Not Hinder the Development of the Competitive EV Charging Market	9
	B. The Department Should Not Delay Approval and Implementation of Phase II	12
	C. The Department Should Reject the American Petroleum Institute’s Efforts to Delay the Needed Transition to Electric Vehicles	16
	D. Additional Recommendations Regarding the Phase II Program	19
	1. The Department Should Require that, within Three Months of the Company's Submission of its First Annual Report on the Phase II Program, National Grid Propose Time of Use Rates or Other Additional EV Load Management Strategies, Including Strategies for Non-Residential Charging	19
	2. The Department Should Formalize National Grid’s Commitment to Propose an Adjustment to its Peak Load Reduction PIM that Incorporates Load Reduction Attributable to Incentivized Off-Peak EV Charging within Three Months of the	

Company’s Submission of its Second Annual Report on the Phase II Program	21
3. The Department Should Modify the EV Adoption PIM to Focus Instead on the Realization of Fuel Cost Savings to EV Drivers at Both Home Chargers and Public Chargers Supported by the Phase II Program	21
4. The EV Adoption PIM, if Retained, Should be Calibrated to the EV Adoption Trajectory Required to Achieve Massachusetts’ GWSA Targets	23
IV. CONCLUSION	24

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES**

Petition of Massachusetts Electric Company)
And Nantucket Electric Company, each d/b/a)
National Grid pursuant to G.L. c. 164, § 94 and) D.P.U. 18-150
220 CMR 5.00, for Approval of General Increases)
in Base Distribution Rates for Electric Service)

CLEAN ENERGY PARTIES POST-HEARING REPLY BRIEF

Pursuant to the Hearing Officer’s May 23, 2019 scheduling communication, Green Energy Consumers Alliance, Natural Resources Defense Council, Sierra Club, and Union of Concerned Scientists (“Clean Energy Parties”) respectfully submit this Post-Hearing Reply Brief in the above-captioned proceeding.

I. INTRODUCTION

There is broad recognition that electric vehicles (EVs) are critical to achievement of the Commonwealth’s Global Warming Solutions Act (GWSA) and Zero Emission Vehicle Memorandum of Understanding (ZEV MOU) obligations. No party disputes that significant additional charging infrastructure will be required to support this rapid vehicle electrification. And no party disputes that National Grid’s Phase II EV proposal would accelerate the deployment of EV charging infrastructure and the adoption of EVs in its service territory.

As set forth below, the Phase II EV proposal fulfills the established conditions under which utilities can contribute to the deployment of EV charging infrastructure in the Commonwealth: It promotes the public interest in numerous ways, targets charging needs not currently being met by the private market, and is crafted to support rather than hinder competition in the charging market. Moreover, the Company’s proposal is appropriately sized to

facilitate deployment of a meaningful share of the charging needs in its service territory based on Massachusetts' GWSA commitments. And the proposal is timely, helping to overcome barriers to EV adoption at this critical early stage of the market, thereby enabling National Grid to make a meaningful contribution to achievement of the Commonwealth's climate and zero emission vehicle obligations. Consistent with the recommendation of all of the EV supply equipment (EVSE) market participants that have intervened or commented in the docket, the Department should approve the Phase II proposal at this time.

In approving the Phase II program, in order to maximize the program's benefits both now and in the future, Clean Energy Parties also offer four recommendations. Specifically, the Department should:

- (1) Require that, within three months of National Grid's submission of its first annual report on the Phase II program, the Company propose time-of-use rates or other additional EV load management strategies, including strategies for non-residential charging;
 - (2) Formalize National Grid's commitment¹ to propose an adjustment to its Peak Load Reduction PIM that incorporates load reduction attributable to incentivized off-peak EV charging within three months of the Company's submission of its second annual report on the Phase II Program;
 - (3) Modify the EV Adoption PIM to focus instead on the realization of fuel cost savings to EV drivers at both home chargers and public chargers supported by the Phase II program;
- and

¹ National Grid Init. Br. at 129.

(4) If the EV Adoption PIM is retained as-is, recalibrate the trigger levels to more closely match the EV adoption trajectory that National Grid has identified as necessary to achieve Massachusetts' GWSA obligations.

II. ADDITIONAL EV CHARGING INFRASTRUCTURE IS CRITICAL TO ACHIEVEMENT OF THE COMMONWEALTH'S CLIMATE AND ZERO EMISSION VEHICLE COMMITMENTS AND UTILITIES HAVE AN IMPORTANT ROLE TO PLAY

A. There Is No Dispute that Achieving Levels of EV Penetration Necessary to Comply with Massachusetts' Climate and Transportation Obligations Will Require a Significant Increase in EV Charging Stations

As explained in Clean Energy Parties' Initial Brief,² multiple mandates and goals independently necessitate the rapid electrification of the transportation sector in Massachusetts. The Commonwealth will not be able to achieve 300,000 zero emission vehicles (ZEVs) by 2025,³ 38 percent penetration of EVs in the light-duty fleet by 2030,⁴ or 100 percent of car, truck and bus sales being zero emission by 2040⁵ without immediately and rapidly accelerating EV adoption rates. Significantly increased deployment of EV charging stations will be necessary not only to accommodate the additional vehicle electrification, but is also critical to help drive this electrification because lack of access to adequate publicly accessible charging infrastructure remains one of the primary barriers to EV adoption.⁶

Using the National Renewable Energy Laboratory's EVI-Pro Lite tool, National Grid calculated that by 2025, Massachusetts will need more than 50,000 public Level 2 (L2) charging

² CEP Init. Br. at 3.

³ Massachusetts' ZEV MOU obligation. Ex. CEP-1 at 5.

⁴ National Grid's calculation of the level of EV penetration required by 2030 to keep Massachusetts on track to meet its Global Warming Solutions Act obligation to reduce economy-wide greenhouse gas emissions at least 80 percent from a 1990 baseline by 2050. Ex. NG-RS-1 at 15.

⁵ Governor Baker's Commission on the Future of Transportation has called for the establishment of a goal that 100 percent of new cars, trucks and buses to be zero emission vehicles by 2040. Ex. CEP-1 at 5.

⁶ Ex. CEP-1 at 14.

ports and more than 2,000 public direct current fast charging (DCFC) ports to support the number of electric vehicles needed to keep the Commonwealth on track to achieve its GWSA obligations.⁷ As of October 2018, there were only 1,400 L2 and 200 public DCFC ports,⁸ revealing a large infrastructure gap.

B. Utilities Have an Important and Additive Role in Helping to Achieve Needed Levels of EV Penetration

Utilities have an important role to play in galvanizing and supplementing the private charging market, particularly in the early stages of the EV transition. Both the *Multi-State ZEV Action Plan: 2018-2021* and the *Northeast Corridor Regional Strategy for Electric Vehicle Charging Infrastructure: 2018-2021* envision a robust role for utilities. This includes:

- (1) Promoting residential charging by supporting deployment of L2 home EV supply equipment (EVSE);
- (2) Assisting in deployment of EVSE at multi-unit dwellings (MUDs) to overcome barriers to deployment in this market segment;
- (3) Supporting deployment of EVSE at workplaces; and
- (4) Strategically deploying both DCFC and L2 charging hubs in communities without off-street parking or located near travel corridors to service both long-distance and local EV drivers and taxi and ride share and hailing fleets.⁹

Despite its recent approval last September, National Grid's Phase I program is already making a difference in fulfilling these roles. Through the Phase I program, as of June 20, 2019, the Company had in the pipeline 515 of its proposed 1,280 new EV charging ports, including 78

⁷ Ex. NG-RS-1 at 6.

⁸ *Id.*

⁹ Ex. CEP-1 at 28-29. The ZEV Action Plan also recommends that utility EV programs include consumer education and outreach activities and customer incentives to charge at home during off-peak times.

already installed and 160 additional ports under construction.¹⁰ Given the limited public infrastructure deployment that existed at the outset of the program,¹¹ the 515 ports that the program is already in the process of deploying represent a significant increase. The Phase II program is designed and calibrated to substantially augment the benefits of Phase I.

III. ARGUMENT

A. National Grid's Phase II Program Meets the Three-part Approval Standard Set Forth in Order D.P.U. 13-182-A

As set forth in Clean Energy Parties' Initial Brief¹² and supported by many other parties,¹³ the elements of National Grid's Phase II program meet the three-part standard for utility involvement in EV charging infrastructure established by the Department in Order D.P.U. 13-182-A, and are consistent with the recommendations of the Multi-State Zero Emission Vehicle Task Force and the Northeast Corridor Steering Committee.

1. National Grid's Proposal Is In the Public Interest

Clean Energy Parties in their opening brief enumerated the multiple benefits of National Grid's Phase II EV program,¹⁴ and other parties and commenters affirmed these benefits.¹⁵ Most notably, the Phase II program will meaningfully facilitate compliance with the Commonwealth's GWSA and ZEV requirements by reducing barriers to deployment of EV charging infrastructure¹⁶; assist the Commonwealth in electrifying transit buses as a key strategy for

¹⁰ National Grid Init. Br. at 368, Tbl.

¹¹ Ex. NG-RS-1 at 6.

¹² CEP Init. Br. at 14-21.

¹³ ChargePoint Init. Br. at 4-10; CLF Init. Br. at 10-26; National Grid Init. Br. at 329-98; Tesla Init. Br. at 3-9.

¹⁴ CEP Init. Br. at 14-18.

¹⁵ *E.g.*, ChargePoint Init. Br. at 4-5; National Grid Init. Br. at 332; EVBox Public Comments at 1-3; Greenlots Public Comments at 1-2; Siemens Public Comments at 2-3.

¹⁶ CEP Init. Br. at 14-15.

reducing transportation emission by supporting bus charging¹⁷; expand awareness of EVs and their benefits to help overcome the current knowledge and awareness barrier to EV adoptions¹⁸; increase electrified transportation options for disadvantaged communities through charging infrastructure carve-outs for environmental justice communities and research and development offerings targeting disadvantaged communities¹⁹; and benefit all ratepayers by putting downward pressure on rates, including through incentivized residential off-peak charging.²⁰ Moreover, the Phase II proposal is directly in line with and will help fulfill the utility-specific recommendations from the Multi-State Zero Emission Vehicle Task Force and Northeast Corridor Steering Committee discussed above.²¹

While few parties dispute the Phase II program’s consistency with the public interest, the Fueling Station and Convenience Store (FSCS) Coalition objects to the absence of a traditional cost-benefit analysis, claiming that there is no demonstrated ratepayer benefit to the Phase II program.²² But the Department expressly rejected the need for a full cost benefit analysis in approving National Grid’s Phase I program, finding “insufficient evidence to warrant amending the standard of review established in D.P.U. 13-182-A,” which does not require such an analysis.²³ Moreover, as Clean Energy Parties pointed out in their Initial Brief,²⁴ available data to date for the two utility service territories with the most EVs in the country confirm that EV load has, in fact, put downward pressure on rates, resulting in cumulative net revenue exceeding \$300

¹⁷ *Id.* at 15.

¹⁸ *Id.* at 15-16.

¹⁹ *Id.* at 16-17.

²⁰ *Id.* at 17.

²¹ *Id.* at 18.

²² FSCS Init. Br. at 27.

²³ Order D.P.U. 17-13 at 9-10.

²⁴ CEP Init. Br. at 17.

million between 2012 and 2017.²⁵ The National Grid Phase II program will help grow the EV market by lessening range anxiety and reducing the upfront cost of infrastructure, including for transit operators, and the program can be expected to lead to similar benefits here in Massachusetts.

2. National Grid's Phase II Program Meets a Need Not Likely to Be Met by the Competitive EV Charging Market

As a number of parties explained in their initial briefs,²⁶ National Grid's Phase II program meets a need that is not currently and will not timely be met by the private charging market. At the time National Grid initiated this docket, there were only 1,400 L2 and 200 public DCFC ports in the Commonwealth.²⁷ Relying exclusively on current market signals and activity by the private market, this figure is unlikely to increase rapidly enough to incentivize or support levels of EV adoption needed to achieve GWSA mandates and ZEV MOU requirements. As detailed in Clean Energy Parties' Initial Brief, significant barriers exist to deploying EVSE in critical market segments including corridor and local DCFC,²⁸ MUDs,²⁹ and disadvantaged communities.³⁰ And even with the Phase I incentives, National Grid has only received a single application to install a DCFC port (as compared to applications for 515 L2 ports),³¹ evidencing a need for the newly-proposed DCFC Demand Charge Discount and a role for the utility ownership option for DCFC in Phase II. Moreover, in the absence of financial incentives such as the Off-Peak Charging Rebate and the proposed equipment rebate for smart networked

²⁵ Even when netted against utility expenditure to support EVs and energy, capacity, transmission and distribution costs incurred as a result of the additional EV load. *See* CEP Init. Br. at 17.

²⁶ CEP Init. Br. at 18-20; ChargePoint Init. Br. at 5-7; CLF Init. Br. at 13-15, National Grid Init. Br. at 332-33.

²⁷ Ex. NG-RS-1 at 6.

²⁸ CEP Init. Br. at 19 (citing Ex. CEP-1 at 37).

²⁹ *Id.* at 20 (citing Ex. CEP-1 at 15-16); *see also* EVBox Public Comments at 3.

³⁰ Ex. CEP-1 at 38.

³¹ National Grid Init. Br. at 368, Tbl.

residential L2 chargers, many residential EV owners will lack the means and incentive to shift their vehicle charging to off-peak hours.³² The Phase II program will help overcome these deployment barriers and create needed incentives for residential load management.

Parties offer no evidence that the private charging market is adequately meeting the needs of the market segments targeted by National Grid's Phase II proposal. Rather, some parties fret that National Grid's proposal could lead to an overbuild of charging stations if the EV market grows more slowly than projected or could result in obsolete stations being deployed (e.g., because throughput is too low), resulting in stranded assets.³³ While it is important to future-proof investments to the extent possible these concerns in no way counsel rejection of the Company's Phase II proposal. Worries about overbuild are misplaced because National Grid's program targets only a small fraction of the anticipated charging infrastructure needed to support the level of EVs required in its service territory in 2025 to be on a GWSA compliance trajectory.³⁴ Because compliance with the GWSA and other ZEV requirements will necessitate a much more complete electrification of the transportation sector than National Grid contemplates for 2025, levels of EVSE deployed through Phase II will in no circumstance be unneeded.³⁵ Further, the presence of a robust network of public charging stations will, itself, help overcome range anxiety, lowering a significant barrier to EV adoption.³⁶ These stations will increase the visibility of charging infrastructure, providing future and current EV drivers the confidence that they will have a location to charge, and helping to accelerate achievement of these commitments.

³² CEP Init. Br. at 20 (citing Ex. CEP-1 at 38).

³³ FSCS Init. Br. at 43. For example, FSCS notes that Electrify America is installing a 350 kW charger in Chicopee, Massachusetts.

³⁴ See National Grid Init. Br. at 336, Tbl.

³⁵ See, e.g., Greenlots Public Comments at 3 (noting that given that "size and scope of the challenge," the sizing of the Phase II program should be even larger).

³⁶ See, e.g., Ex. CEP-1 at 31.

Concerns about technological obsolescence are also misplaced. As an initial matter, these concerns do not apply to L2 charging, which will continue to make sense at long dwell time locations targeted by the Phase II program where high-powered charging is not needed. For DCFC, National Grid can take steps to future-proof its investments by siting infrastructure to support the type of higher throughput chargers that some automakers and charging providers are beginning to deploy.³⁷

The National Grid Phase II program is helping to timely fill an unmet need.

3. National Grid's Phase II Program Will Not Hinder the Development of the Competitive EV Charging Market

The Phase II program, as proposed, will not hinder development of the private EV charging market. Rather, as multiple parties and commenters pointed out,³⁸ the utility engagement contemplated in Phase II, including the proposed utility ownership option, will support the development of the private market.

National Grid has incorporated a number of safeguards into its Phase II proposal that will ensure robust private competition and mitigate concerns about the utility directly competing with private companies to attract drivers to charging stations. For example, National Grid has provided that “all makes and models of EVSE that meet the safety, technical, and other requirements will be eligible to participate.”³⁹ ChargePoint “agrees that such a commitment to fully open vendor qualification subject to safety, technical, and other requirements would ensure that the competitive markets are not hindered.”⁴⁰

³⁷ This is the approach that Electrify America has taken with its corridor charging station installations. *See* Electrify America Public Comments at 2.

³⁸ CEP Init. Br. at 20-21; National Grid Init. Br. at 333-34; Greenlots Public Comments at 2-3.

³⁹ Ex. NG-RS-Rebuttal-1 at 23.

⁴⁰ ChargePoint Init. Br. at 7-8.

Concerns about competition center almost exclusively on National Grid’s proposal to include a utility ownership option for certain market segments in its Phase II program.⁴¹ Specifically, some parties claim this will provide National Grid a “first mover” advantage,⁴² while others claim that National Grid’s proposal will allow it to own too large a share of the market.⁴³ Neither concern is well-founded. Claims regarding a possible first mover advantage are belied by the paucity of DCFC installed to date independently by the private market. If the private market perceived a viable business model at current levels of EV penetration, it presumably would have snapped up that purported “advantage.” As discussed above, even with the incentives National Grid has made available for DCFC in Phase I, the Company reports only a single DCFC port being developed, highlighting the valuable role a utility ownership option is likely to play in accelerating deployment of DCFC.⁴⁴ As National Grid points out: “Competitive EVSE suppliers have been operating in this region for several years but have been unable to develop a robust competitive market in New England to help support the Commonwealth’s EV goals.”⁴⁵ Rather than providing National Grid an unfair competitive advantage, “Company-owned EVSE will *lower* barriers and, in fact, act as a market catalyst by improving economics associated with investing in charging infrastructure as the utility investment accelerates EV adoption, thereby increasing utilization of non-utility infrastructure.”⁴⁶

Concerns about National Grid controlling too much market share mistakenly portray the charging market as a fixed size, such that any station owned by a utility is a station *not* owned by

⁴¹ Clean Energy Parties do not take a position in favor of utility ownership per se. However, it is important not to foreclose it as an option. We encourage the Department to remain vigilant during the implementation of the Phase II program to ensure that contribution payments from site hosts for utility-owned charging stations are set at a level that ensure some cost parity to ratepayers between utility-owned and make-ready stations supported by the program.

⁴² FSCS Init. Br. at 47; NECEC Init. Br. at 35; PowerOptions Init. Br. at 8.

⁴³ API Init. Br. at 22-23.

⁴⁴ National Grid Init. Br. at 368.

⁴⁵ *Id.* at 376.

⁴⁶ *Id.* at 373 (internal quotations omitted).

a private market participant. This fundamentally misapprehends the market. Utility efforts to spur deployment of EV charging stations at the early stages of the transition will help grow the market by diminishing one of the primary current barriers to EV adoption: lack of access to convenient charging options.⁴⁷ Opponents' preferred course of action would merely slow the growth of the market without improving near-term prospects for private market participants.

Several parties suggest that the Department's Order in D.P.U. 17-13 discouraged utility ownership.⁴⁸ That is incorrect. In D.P.U. 17-13 the Department found that "there is substantial evidence demonstrating that the [Phase I] EV Program will help facilitate the development of the private EVSE market by supporting the costs to site hosts and allowing site hosts to choose from a range of technologies, ownership models, and pricing approaches."⁴⁹ All three of these elements are present here. As ChargePoint identified, the Phase II proposal will allow site hosts to choose from a range of technologies and pricing approaches even under the utility ownership model.⁵⁰ And the Phase II program gives site hosts even greater flexibility than Phase I in selecting the most beneficial ownership model. There is no tension between the Department's prior order on competition and the possibility of utility ownership of charging stations, particularly given the safeguards (choice in technology, control over pricing, etc.) included here.

Ultimately, the parties asserting that National Grid's proposal will hinder the competitive market are not market participants themselves, but rather, in multiple cases, competitors of the EV industry itself.⁵¹ Indeed, the FSCS Coalition's discussion of how its members have engaged in the deployment of EV charging stations indicates that the FSCS Coalition remains primarily a competitor to the EV charging market and underscores the failure of private actors to

⁴⁷ See, e.g., Greenlots Public Comments at 2-3.

⁴⁸ See AGO Init. Br. at 187.

⁴⁹ Order DPU 17-13 at 18.

⁵⁰ ChargePoint Init. Br. at 7-8.

⁵¹ See, e.g., API Init. Br. at 22-25; FSCS Init. Br. at 45.

meaningfully invest in EV charging. The existing and planned installations reported by the FSCS Coalition amount to only a handful of charging sites in the whole Commonwealth, most, if not all, of which have required the support of grants and other incentives to build.⁵² By contrast, the EVSE companies that have intervened or commented in this docket—ChargePoint, Electric Motor Werks, Inc., EVBox, Greenlots, and Siemens⁵³—are broadly supportive National Grid’s program, including the utility ownership option.⁵⁴ Their support should be weighed heavily by the Department.

B. The Department Should Not Delay Approval and Implementation of Phase II

Clean Energy Parties agree with National Grid and many other parties⁵⁵ that it is both appropriate and essential that the Department approve Phase II now. Given the slow rate of vehicle turnover⁵⁶ and the long lead times to build out charging infrastructure⁵⁷ near-term actions to support EV adoption will have a disproportionate impact on Massachusetts’ ultimate ability to meet these requirements. The Phase II program contains a number of novel elements that were not part of the Phase I program, including an Off-Peak Charging Rebate, a DCFC Demand Charge Discount, a utility-ownership option for certain market segments, charging infrastructure targeting new market segments, a Fleet Advisory Services Plan, distinct research and development proposals (including ones designed to directly benefit disadvantaged communities),

⁵² FSCS Init. Br. at 5-6.

⁵³ Siemens Public Comments at 2 (observing that “we have not seen a single instance where utility participation has harmed competition in the EV charging infrastructure market”).

⁵⁴ See, e.g., Greenlots Public Comments at 3 (“[O]ther market participants benefit from improved economics associated with investing in charging infrastructure, as the utility investment accelerates EV adoption, thereby increasing utilization of non-utility infrastructure. This results in increased opportunities for all market participants, importantly positioning utility investment—including utility ownership—as a market catalyst, rather than a market constraint”); EVBox Public Comments at 3.

⁵⁵ See, e.g., ChargePoint Init. Br. at 10-11, National Grid Init. Br. at 365-72; Tesla Init. Br. at 3-4; see also CLF Init. Br.; Electric Motor Werks Init. Br.

⁵⁶ Ex. NG-RS-Rebuttal-1 at 7.

⁵⁷ *Id.*

and an augmented evaluation plan.⁵⁸ There is no basis for deferring action on these novel elements. Moreover, for the program elements that represent an expansion of the prior Phase I proposal, the scale-up is necessitated by the urgency and ambition of the Commonwealth's climate obligations. Deferring consideration of these elements would needlessly "undermine the ability of the Commonwealth to achieve its GWSA targets."⁵⁹

Parties promoting delay argue that additional data from Phase I implementation are needed before Phase II can be approved and claim support for this position in the Department's prior orders in D.P.U. 17-05 and 17-13.⁶⁰ But implementation data from Phase I can productively inform Phase II on an ongoing basis and allowing the programs to move forward in parallel is fully consistent with the Department's prior orders. In its Phase I Order, the Department provided that "[o]ngoing evaluation of the EV Program is essential to ensure that the program's components fulfill their intended purpose and to provide opportunities *to make adjustments to the program that may improve results.*"⁶¹ Likewise, in its order on Eversource's EV program, the Department explained that it "will solicit stakeholder input on the results of the Companies' evaluations in order to review the recommendations and data of the evaluated projects and *whether adjustments need to be made going forward.*"⁶² Rather than suggesting that the approval of Phase II must wait until Phase I results are complete, the prior orders evidence a clear understanding that data collection and reporting requirements are intended to be used in the ongoing evaluation of the programs *as they are being implemented.* Indeed, as ChargePoint explains, the Company "is well suited to incorporate *contemporaneous* learnings from the Phase I results into the ramp-up and mobilization of the Phase II program," which is "commonly done

⁵⁸ National Grid Init. Br. at 366-67.

⁵⁹ ChargePoint Init. Br. at 10; *see also* National Grid Init. Br. at 368.

⁶⁰ *E.g.*, FSCS Init. Br. at 16 (citing Phase I Order at 39; D.P.U. 17-05 Order at 484).

⁶¹ D.P.U. 17-13 Order at 39 (emphasis added).

⁶² D.P.U. 17-05 Order at 484.

in new technology deployments in utility infrastructure build-outs.”⁶³ And the Company has confirmed that all of the information that is gathered from the Phase I program will inform both the remainder of the implementation of the Phase I program as well as the implementation of the Phase II program.⁶⁴

Moreover, Parties advocating delay overlook the two year lag between the filing and approval of National Grid’s Phase I program, focusing instead on the shorter duration between approval of Phase I and filing of Phase II.⁶⁵ The American Petroleum Institute misleadingly suggests that the California Public Utilities Commission (CPUC) denied Southern California Edison’s Phase 2 proposal in “precisely the case here.”⁶⁶ However, in that docket (A.14-10-014), Southern California Edison proposed two phases of the Charge Ready program in the *same* application, and the CPUC decided to approve only the first phase as part of that proceeding. The intervening two year gap between the filing of National Grid’s Phase I and Phase II EV Programs, the ongoing implementation of Phase I at this time (with 40 percent of the 680 targeted charging stations in the deployment pipeline⁶⁷), and the ongoing implementation of similar programs by National Grid in both Rhode Island and New York, render the context quite different from California. As National Grid explained, the “Company and its affiliates are continually sharing lessons among the Phase I EV Program, the electric transportation program

⁶³ ChargePoint Init. Br. at 10-11 (quoting Ex. CP-PJC-2 at 2–3) (emphasis added).

⁶⁴ See National Grid Init. Br. at 366. For this reason also, DOER’s recommendation to deny funding for “those aspects of the Phase II EV program that are adding funding to existing Phase I EV programs because Phase I EV programs have not yet been evaluated,” DOER Init. Br. at 12, should also be rejected. DOER’s position is particularly confusing in light of its recognition of the need to rapidly accelerate deployment of EVs to meet the ZEV MOU commitment and GWSA requirements, *id.* at 10, and its acknowledgment of the five-year stay-out provision between rate cases, *id.* at 12, which would preclude those market segments targeted by the much smaller Phase I proposal from receiving additional funding until after it is too late to meet the ZEV MOU commitment.

⁶⁵ As discussed below, this lag distinguishes National Grid’s filings from the single filing for approval of two phases of Charge Ready by Southern California Edison cited by API and FSCS.

⁶⁶ API Init. Br. at 21; see also FSCS Init. Br. at 21-22.

⁶⁷ National Grid Init. Br. at 368, Tbl.

in Rhode Island and the New York electric vehicle program, including through bi-weekly meetings.”⁶⁸ The California docket provides no basis for delay in the present context.⁶⁹

Finally, several parties urge that the DPU initiate a generic EV investigation in lieu of addressing National Grid’s Phase II program.⁷⁰ The parties advocating a generic process do not identify how long such a process would take or why initiation of such a process would be inherently in tension with implementation of National Grid’s Phase II program. In reality, a statewide proceeding would not and should not interfere with approval and implementation of Phase II and is not a basis for deferring consideration of National Grid’s proposal. Indeed, the CPUC acknowledged as much in their order initiating a proceeding to coordinate transportation electrification programs. Regarding the \$1 billion in utility program investments in open dockets at the time, the CPUC clarified that those “proceedings will continue to be considered under current guidance,”⁷¹ analogous to the three-part test established by the Department in 13-182-A. The Department should likewise decline to disrupt the approval and implementation of pending proposals.

Ultimately, the coordination recommendations appear to rest on the faulty premise that there exists some “optimal” deployment of EV charging infrastructure and allocation of utility customer funds and that it is the Department’s role to divine this optimal investment.⁷² This is quixotic, and the Department should decline what amount to requests for paralysis and delay. As

⁶⁸ *Id.* at 367.

⁶⁹ Indeed, the Charge Ready Phase 2 example is in many ways a cautionary tale about the consequences of delaying consideration and approval of programs. The CPUC’s unwillingness to consider Phase 2 in the initial Charge Ready proposal opened the door for unforeseen delays in the eventual implementation of Phase 2. Southern California Edison re-proposed the second phase of Charge Ready in June of 2018, but a proposed decision on Phase 2 has been delayed months due to bottlenecks at the CPUC in dealing with wildfire-related proceedings and is likely to be delayed several months more, or longer. *See* Application of Southern California Edison Company (U 338-E) for Approval of Its Charge Ready 2 Infrastructure and Market Education Programs (June 26, 2018). A.18-06-015

⁷⁰ Acadia Center Init. Br. at 17-19; AGO Init. Br. at 190-91; MEDA Init. Br. at 18.

⁷¹ CPUC Order Instituting Rulemaking to Continue the Development of Rates and Infrastructure for Vehicle Electrification, R.18-12-006 (Dec. 19, 2018), at 8.

⁷² *See* AGO Init. Br. at 191.

noted above, the Multi-State Zero Emission Vehicle Task Force and Northeast Corridor Steering Committee have already made recommendations about utilities' roles in supporting transportation electrification in the region as part of their broader recommendations about the roles for all stakeholders in this transition. National Grid's Phase II program closely tracks those recommendations.

In this docket, the Department is confronted with a concrete proposal to meaningfully accelerate development of EVSE and deployment of EVs in National Grid's service territory. The Department has previously established clear criteria for evaluating such proposals on their merits.⁷³ For the reasons identified above and in Clean Energy Parties' Initial Brief, National Grid's Phase II program meets these criteria. The Department should approve it here and now.

C. The Department Should Reject the American Petroleum Institute's Efforts to Delay the Needed Transition to Electric Vehicles

The Department should not credit arguments by the American Petroleum Institute (API) opposing National Grid's Phase II program, which, despite their pro-environment and pro-consumer rhetoric, would primarily benefit the petroleum industry and would greatly set back the Commonwealth's efforts to reduce greenhouse gas emissions from the transportation sector.

Citing out-of-date and increasingly inaccurate Energy Information Administration projections of EV adoption rates,⁷⁴ API takes issue with National Grid's "conclusion" that there will be 546,464 EVs in its service territory in 2025, to support its proposed rejection of the Phase II program.⁷⁵ API misapprehends National Grid's analysis. National Grid has not "forecasted" 546,464 EVs in its service territory in a business as usual scenario with no further action by the

⁷³ Order D.P.U. 13-182-A.

⁷⁴ API Init. Br. at 10 n.4. EIA's 2019 Annual Energy Outlook released in January 2019 significantly increases the forecasted rate of EV adoption.

⁷⁵ API Init. Br. at 9.

company or other relevant actors. Rather, National Grid has identified this figure as the number of EVs that will be needed in its service territory *if* Massachusetts is to be on track to meet GWSA obligations, and has identified that robust and visible deployment of EV charging infrastructure is a significant factor in encouraging EV adoption, thus both supporting and encouraging achievement of this target. While the GWSA's long-term requirements are framed around the year 2050, near-term action to support vehicle adoption is critical given the 15- to 30-year turnover time of the vehicle fleet,⁷⁶ and the Commission on the Future of Transportation has already called for all new cars, trucks, and buses in the Commonwealth to be zero emissions by 2040,⁷⁷ necessitating a significant ramp-up beginning well before that date. The Phase II program is logically and appropriately sized to support a portion of the charging infrastructure estimated to be needed for successful achievement of GWSA requirements.

Professing concern about the environment and greenhouse gas emissions, API nonsensically suggests that Department deny the public charging portion of National Grid's proposal because of the possibility that charging at public stations could occur during on-peak hours, thereby increasing power plant emissions.⁷⁸ This is a non sequitur. Rather than jettisoning development of the infrastructure that will be critical to supporting the Commonwealth's ZEV MOU and GWSA requirements as API suggests, the Department should heed Clean Energy Parties' recommendation to require that National Grid develop additional load management measures targeting non-residential charging.⁷⁹ Even without these additional load management measures in place, however, the mere possibility that some charging will occur on peak does not

⁷⁶ See NG-RS-Rebuttal-1 at 7.

⁷⁷ Ex. CEP-1 at 5.

⁷⁸ API Init. Br. at 11-12.

⁷⁹ See Section III.D.1, *infra*.

erase the environmental or climate benefits of the Phase II proposal, and is not a reasonable basis to reject it.⁸⁰

API's comparison to other EV utility programs⁸¹ is misleading and its conclusion that the Phase II program is oversized should be dismissed. API glosses over numerous factors about the programs it lists that render its \$/customer and \$/GWh comparisons meaningless. For example, API ignores program length. But this factor alone dramatically impacts the \$/customer and \$/GWh calculations and highlights their inappropriateness as program comparators (e.g., a five-year program would appear five times as expensive under API's \$/customer and \$/GWh metrics as a one-year program even if their annualized costs were equivalent). Moreover, API does not attempt to identify or address whether the programs were pilots versus full-fledged programs, whether the program scope included light- and/or heavy-duty vehicles, whether the program included marketing and education programs or other non-infrastructure incentives, whether the states had climate or ZEV commitments necessitating a specified ramp-up of EVs in the jurisdiction, or any of the other factors that would enable a meaningful apples-to-apples comparison.⁸²

Claiming empathy for low-income households, API urges denial of the Phase II proposal as a cross-subsidy to higher-income EV adopters.⁸³ While ensuring that all ratepayers benefit from the Phase II program is critically important, the best way to ensure benefits is not to toss out the program. API overlooks the many aspects of the proposal specifically targeting benefits to low-income ratepayers and disadvantaged communities as well as the fact that increasing the

⁸⁰ The power sector is rapidly getting cleaner and API ignores that Governor Baker is pursuing a clean peak standard. *See* <https://www.mass.gov/service-details/clean-peak-energy-standard>.

⁸¹ API Init. Br. at 12-16.

⁸² API even neglects to name or provide other identifying information for programs summarized in their table, which renders it very difficult to investigate the relevant factors for the programs in service territories with many utility EV programs.

⁸³ API Init. Br. at 16-18.

EV market will grow the used vehicle market as well, making EVs available to more Commonwealth drivers. API's recommendations appear more calculated to lock in current disparities in EV ownership than to meaningfully address them. Low-income households who spend a disproportionate share of their income on gasoline (and are therefore the most vulnerable to the caprices of the global oil market) stand to benefit the most from the fuel cost savings that EVs can provide, assuming adequate access to charging infrastructure.

The Department should also dismiss API's complaint that National Grid and the Commonwealth are inappropriately picking winners for decarbonizing the transportation sector.⁸⁴ Nothing about the Phase II proposal precludes API and its members from building out fueling infrastructure for other fuels. But there is no reason to dilute the impact of ratepayer investment in zero carbon transportation by subsidizing API's members' preferred fuels, and every reason to help accelerate the already-moving transition to EVs.

Ultimately, the Department should decline API's invitation to take the Commonwealth back into the previous century. API's recommendations are particularly unconvincing coming from a representative for the entities that helped support the addiction to fossil fuels that led to current climate crisis in the first place.

D. Additional Recommendations Regarding the Phase II Program

1. The Department Should Require that, within Three Months of the Company's Submission of its First Annual Report on the Phase II Program, National Grid Propose Time of Use Rates or Other Additional EV Load Management Strategies, Including Strategies for Non-Residential Charging

National Grid does not dispute the importance of load management for ensuring that the addition of new EVs maximizes benefits to all ratepayers or that its Phase II proposal contains no

⁸⁴ *Id.* at 25-26.

elements targeting load management for non-residential charging. Nevertheless, National Grid urges the Department to kick the can further down the road by denying Clean Energy Parties' commonsense recommendation that the Department set a time frame for establishing time-of-use rates or other additional EV load management strategies, including strategies for non-residential charging.

In its brief, National Grid dismisses Clean Energy Parties' recommendation in a single sentence, asserting that the Company intends to study the data from the off-peak charging rebate to develop TOU rates and that "one year of data is insufficient to develop TOU rates."⁸⁵

As an initial matter, National Grid's claim is not responsive to Clean Energy Parties' actual recommendation, which is to propose TOU rates *or additional load management measures* within three months of first annual report, and to target *non-residential charging*. National Grid offers no explanation for why multiple years of data from the *residential* off-peak charging rebate would be necessary to establish load management measures for *non-residential* charging. And the Company provides no support for its contention that a year of data on how customers respond to its proposed off-peak charging discount would be insufficient to develop rates with structures similar to rates that other utilities have already implemented. There are numerous examples from across the country demonstrating that TOU rates are effective in pushing EV load to off-peak hours. National Grid need not reprove what has already been proven.

If the Department ultimately agrees that National Grid needs additional time, it should require the Company to propose the additional load management measures within three months of its *second* annual report, as National Grid has indicated is possible for proposing an

⁸⁵ National Grid Init. Br. at 390.

adjustment to its Peak Load Reduction PIM to incorporate load reduction from incentivized off-peak EV charging.⁸⁶

2. The Department Should Formalize National Grid’s Commitment to Propose an Adjustment to its Peak Load Reduction PIM that Incorporates Load Reduction Attributable to Incentivized Off-Peak EV Charging within Three Months of the Company’s Submission of its Second Annual Report on the Phase II Program

In their Initial Brief, Clean Energy Parties recommended that the Department require National Grid to propose an adjustment to its peak load reduction PIM that incorporates load reduction attributable to incentivized off-peak EV charging. In its opening brief, National Grid requests that “the deadline for this determination should be three months after the Company submits its second report on the Phase II program and not three months after the Company submits its first report.”⁸⁷ The Department should formalize this commitment in its order.

3. The Department Should Modify the EV Adoption PIM to Focus Instead on the Realization of Fuel Cost Savings to EV Drivers at Both Home Chargers and Public Chargers Supported by the Phase II Program

The Clean Energy Parties and many others pointed out that it makes little sense to establish a PIM that rewards the Company for activities beyond its control.⁸⁸ Instead, a performance incentive metric based on fuel costs savings at EV charging stations supported by the Phase II program would be more appropriate. In response, National Grid acknowledges that there are “some” factors outside its control, but observes that these factors can both increase and decrease EV deployment.⁸⁹ And the Company observes that “one of the most important factors influencing a customer’s decision in whether to buy an EV is the availability and convenience of

⁸⁶ See Section III.D.2, *infra*

⁸⁷ National Grid Init. Br. at 129.

⁸⁸ CEP Init. Br. at 24; AGO Br. at 192; API Init. Br. at 29; CLF Init. Br. at 27; DOER Br. at 26-28; FSCS Init. Br. at 50.

⁸⁹ National Grid Init. Br. at 130.

charging infrastructure.”⁹⁰ These observations, while accurate, do not support retention of the proposed EV Adoption PIM. The presence of potentially countervailing exogenous factors only highlights the arbitrary nature of the proposed PIM; it does not make it less arbitrary or more appropriate. And while it is not disputed that the company’s program would positively influence EV adoption, the program is far from the only factor.

National Grid also objects to adoption of a PIM focused on fuel cost savings, claiming that it is impractical to implement. National Grid first contends that the proposal does not account for the localized fluctuations in gasoline prices both on a neighborhood-to-neighborhood basis and also on a day-to-day basis.⁹¹ However, as explained in Clean Energy Parties’ Initial Brief, “[r]ealized fuel cost savings from the use of electricity as a transportation fuel could be measured relative to the Energy Information Administration’s projected gasoline and diesel prices to establish a baseline.”⁹² This would provide National Grid a fixed target to beat. Next, National Grid contends that “Company will not have access to customer charging patterns outside of its Phase II EV Program so it will not have data on the full cost of charging for some customers.”⁹³ Clean Energy Parties agree, which is why the proposed PIM would be based on “chargers supported by the Phase II program.”⁹⁴ Finally, National Grid argues that its EV Adoption PIM is more clear, measurable and closely tied to state policy and regulatory goals.⁹⁵ But as discussed above, the mere fact that it is possible to measure EV adoption rates in National Grid’s service territory does not make this an appropriate PIM. As the Company itself concedes, these growth rates are driven by factors outside of its control and, as such, run the likelihood of

⁹⁰ *Id.*

⁹¹ *Id.* at 134.

⁹² CEP Init. Br. at 25.

⁹³ National Grid Init. Br. at 134.

⁹⁴ CEP Init. Br. at 24.

⁹⁵ National Grid Init. Br. at 134.

rewarding the Company for exogenous variables not related to the efficacy of the Phase II program, rendering it a less suitable PIM. Rather, National Grid should focus on a factor it can influence, fuel cost savings, which multiple studies reveal is the single biggest motivator of EV purchase decisions.⁹⁶

4. The EV Adoption PIM, if Retained, Should be Calibrated to the EV Adoption Trajectory Required to Achieve Massachusetts' GWSA Targets

As Clean Energy Parties pointed out in their opening brief,⁹⁷ it is inappropriate for the Company to size its Phase II proposal around the projected buildout of EV charging stations necessary to support the Commonwealth's GWSA requirements but then size its EV Adoption PIM around EV development targets that are far lower. If National Grid is going to be rewarded for EV deployment driven by factors acknowledged to be beyond its control through an EV Adoption PIM, the trigger levels must be consistent with the Company's identified electrification trajectory to meet the GWSA requirements.

In response, National Grid argues that "the Clean Energy Parties have provided no cogent basis for tethering the EV Adoption PIM to the Commonwealth's GWSA targets."⁹⁸ This contention is bizarre since it was the Company itself that developed the electrification trajectory both for the Commonwealth and for its service territory that would be required to keep the Commonwealth on track to achieve GWSA goals through 2025. The Clean Energy Parties merely request that the Company use the same levels of EV deployment for its performance incentive as it used to size the charging infrastructure needs in its service territory supported by the Phase II EV Charging Program. If the Department is serious about encouraging National Grid to support a private market for EV charging, it should size the trigger levels for the EV

⁹⁶ CEP Init. Br. at 25.

⁹⁷ *Id.* at 25-26.

⁹⁸ National Grid Init. Br. at 134.

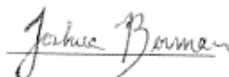
Adoption PIM to coincide with the levels the Company has identified as necessary. This will provide National Grid an incentive to support non-utility efforts to rapidly deploy charging stations in the Commonwealth and in its service territory.

IV. CONCLUSION

WHEREFORE, the Clean Energy Parties respectfully request that the Department approve National Grid's Phase II EV program without delay and encourage the Department to:

- (1) Require that, within three months of National Grid's submission of its first annual report on the Phase II program, the Company propose time of use rates or other additional EV load management strategies, including strategies for non-residential charging;
- (2) Formalize National Grid's commitment to propose an adjustment to its Peak Load Reduction PIM that incorporates load reduction attributable to incentivized off-peak EV charging within three months of the Company's submission of its second annual report on the Phase II Program;
- (3) Modify the EV Adoption PIM to focus instead on the realization of fuel cost savings to EV drivers at both home chargers and public chargers supported by the Phase II program; and
- (4) If the EV Adoption PIM is retained as-is, recalibrate the trigger levels to more closely match the EV adoption trajectory that National Grid has identified as necessary to achieve Massachusetts' GWSA obligations.

Respectfully submitted,



Joshua Berman
Senior Attorney
Sierra Club
50 F St. NW, 8th Floor

Washington, DC 20001
(202) 650-6062
Josh.Berman@sierraclub.org

Elisa J. Grammer
47 Coffin Street
West Newbury, MA 01985
(703) 855-5406
Elisa.Grammer@perennialmotion.com

*Counsel for Green Energy Consumers
Alliance, Natural Resources Defense
Council, Sierra Club, and Union of
Concerned Scientists*

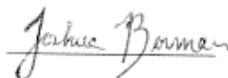
**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES**

Petition of Massachusetts Electric Company)
And Nantucket Electric Company, each d/b/a)
National Grid pursuant to G.L. c. 164, § 94 and) D.P.U. 18-150
220 CMR 5.00, for Approval of General Increases)
in Base Distribution Rates for Electric Service)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served true copies of the CLEAN ENERGY PARTIES POST-HEARING REPLY BRIEF on the parties on the service lists in accordance with the Procedural Notice and Ground Rules in the above-caption docket.

Sincerely,



Joshua Berman
Senior Attorney
Sierra Club
50 F St. NW, 8th Floor
Washington, DC 20001
Tel: (202) 650-6062
Email: Josh.Berman@sierraclub.org

Dated: July 16, 2019