Docket No. 4780
First Set of Data Requests of the
Sierra Club, People's Power & Light and
Natural Resources Defense Council
February 27, 2018

Electric Transportation

1-1. Referring to Chapter 5, pages 113 and 104, Table 5-2:

a. Please confirm whether the term "disadvantaged communities" (page 113) references the same set of communities as "Income Eligible" communities (page 104, Table 5-2). If not, please explain the difference.

b. Please provide the definition of an "Income Eligible" community as the Company is using that term with respect to its Electric Transportation proposal. (If the Company's definition of "disadvantaged communities" differs from "Income Eligible communities," please define "disadvantaged communities".)

c. Beyond the four Income Eligible community sites to be targeted for Level 2 charging installations as part of the Charging Station Demonstration Program, please identify any other components of the Company's Electric Transportation proposal that specifically seek to provide the benefits of vehicle electrification to Income Eligible and/or disadvantaged communities.

1-2. Referring to Chapter 5, Section 2.4 (Transportation Education and Outreach), please identify any steps that the Company will take to specific target education and outreach at Income Eligible or disadvantaged communities, as the Company defines those terms.

1.3. Referring to Chapter 5, Table 5-2, please identify the basis (including any studies, analyses or workpapers) for the number of targeted sites for:

a. Workplaces.

b. Apartment buildings.

c. Income Eligible community sites.

d. Public transit stations.

e. Public fast-charging locations.

f. Government light-duty fleets.

g. Corporate light-duty fleets.

h. Public transit buses.

i. Rideshare company charging hubs.

j. Other heavy-duty/DC Fast Charging locations.

1.4. Referring to Chapter 5, Table 5-2, if the number of actual ports per site is lower than the number of potential ports per site identified in the table for a particular charging segment, does the Company plant to target additional sites for that charging segment to achieve the full potential number of ports?

1-5. Referring to Chapter 5, Table 5-2, please identify how the Company will determine whether the public fast-charging locations will target corridor travel or intra-city charging.

1-6. Referring to Chapter 5, Section 2.2 (Charging Station Demonstration Program), please identify any steps that the Company is proposing to take to coordinate siting of public fast-chargers with any fast chargers that are being developed by Electrify America using Appendix C funds from the VW Settlement.

1-7. Referring to Chapter 5, Section 2.2 (Charging Station Demonstration Program), how does the Company plan to work with RIPTA and relevant school districts to ensure that stations deployed to serve public transit and school buses are used and useful?

1-8. Referring to Chapter 5, Section 2.2 (Charging Station Demonstration Program, would the stations deployed under the "rideshare company charging hub" segment be available for exclusive use for rideshare and other advanced mobility drivers?

1-9. Referring to Chapter 5, Table 5-6, please identify the dollar per ton carbon dioxide equivalent figure used to calculate greenhouse gas externality costs.

1-10. Referring to Chapter 5, Section 2.1 (Off-Peak Charging Rebate Pilot) at page 103, the proposal states that the Company "reserves the right to change the value per kWh as necessary during this Pilot to achieve the Pilot goals." Please identify when and on what basis the Company would make the determination to change the per-kWh value.

1-11. Referring to Chapter 5, Section 2.1 (Off-Peak Charging Rebate Pilot), please identify the time frame on which the Company will identify a vendor for the off-peak charging rebate hardware and software.

1-12. Referring to Chapter 5, Section 2.1 (Off-Peak Charging Rebate Pilot), please confirm if the Company intends to limit enrollment of the Off-Peak Charging Rebate Pilot to 500 customers. If so, please explain why.

1-13. Referring to Chapter 5, Section 2.1 (Off-Peak Charging Rebate Pilot), do the on-peak/off-peak windows and price differentials of the Off-Peak Charging Rebate Pilot align with the time-varying rates the Company intends to introduce via AMF deployment?

1-14. Referring to Chapter 5, Section 2.2 (Charging Station Demonstration Program):

a. For make-ready stations supported by this program, please explain whether the Company will track the load profiles and rates charged to drivers at these stations. If so, how will the Company make that information publicly available?
b. For make-ready stations supported by this program, is the Company proposing to defray 100% of the cost of the make ready infrastructure up to, but not including, the charging station? If not, please describe the percentage of make ready costs the Company intends to cover under the Make Ready option.
c. For make-ready stations supported by this program, what is the magnitude of the rebate that the Company intends to offer for the charging station itself (i.e. not the make ready infrastructure)?
d. For make-ready stations supported by this program, has the Company considered modifying the magnitude of the rebate based on the segments the Company identifies in Table 5-2? Please explain why or why not.
e. For make-ready stations supported by this program, how does the Company plan to ensure that site hosts properly operate and maintain site host-owned equipment for a minimum of five years?
f. For Company-operated stations developed through this program, does the Company plan to calibrate Site Host Participation Payments such that, from the site host's perspective, the charging stations are equal in cost to stations that would have been deployed under the Make Ready option?
g. For Company-operated stations developed through this program, please explain how the Company will make publicly available information regarding rates charged to drivers at these stations.

1-15. Please refer to the article entitled "UK National Grid plans superfast country-wide EV charging network," available at https://www.engadget.com/2018/02/20/uk-national-grid-ev-charging-network/.

a. Please confirm whether UK National Grid intends to install 350 kW fast chargers in the United Kingdom.

b. Please identify the throughput of the direct current fast chargers (DCFC) that the Company intends to install as part of its Charging Station Demonstration Program in Rhode Island.

c. If the throughput of the DCFC that the Company intends to install as part of its Charging Station Demonstration Program differs from the throughput of the superfast charging stations the Company intends to install in the United Kingdom, please explain the reason for the difference.

1-16. Referring to Chapter 5, please identify any actions that the Company is proposing as part of its Electric Transportation offerings to test alternatives to second meters for EV-only time-varying rates.

1-17. Referring to Chapter 5, Section 2.1 (Off-Peak Charging Rebate Pilot), page 103, for the proposed summer and non-summer off-peak charging rebates, please quantify the amount of the rebate value that corresponds to the "difference in load-weighted on-peak and off-peak energy costs" and the amount that corresponds to the "additional payment intended to reflect a contribution to forward capacity market cost savings."

1-18. Referring to Chapter 5, Section 2.6 (Initiative Evaluation), page 110, please identify how and when the Company will determine the composition of the Electric Transportation Advisory Committee?

1-19. Referring to Chapter 5, Section 2.6 (Initiative Evaluation), page 110, given that the Company plans to conduct annual reporting on its identified metrics, please identify what information the Company plans to make available to members of the Electric Transportation Advisory Committee in advance of the Committee's quarterly meetings.

1-20. Referring to Chapter 5, Section 2.3 (Discount Pilot for DC Fast Charging Station Account), please identify any examples of other time-limited utility demand charge discounts that the Company considers to have been successful and the basis for that conclusion.

1-21. Referring to Chapter 5, Section 2.3 (Discount Pilot for DC Fast Charging Station Account), how many DC Fast Charging stations does the Company expect to incentivize through the Discount Pilot?

1-22. Referring to Chapter 5, Section 2.5 (Company Fleet Expansion), has the Company considered redirecting resources from the Company Fleet Expansion initiative toward additional charging infrastructure to support the electrification of publicly accessible medium and/or heavy-duty vehicles?

1-23. Referring to Chapter 5, Table 5-6, why does the Company not include the Net Utility Revenue Increase and Net Utility Revenue Decrease components in its Societal Cost Test?

Electric Heat

1-24. Referring to Chapter 6:

a. Please explain the basis for the Company's decision to propose this program as part of its Power Sector Transformation proposal rather than its efficiency program plans.

b. How would the proposals in the Electric Heat Initiative (EHI) be coordinated with the efficiency programs currently underway?

c. In Division 5-4, the Division asked which of three approaches would be best – ramping up energy efficiency (EE) investments, supplementing EE with EHI, or shifting to EHI. On page 4, the Company answered that: "Barring an increase in the annual EE budget, attempting to achieve the entirety of the state's heat decarbonization targets exclusively through EE programs would quickly come to dominate that program." From the perspective of a ratepayer how would it matter whether heat pump incentives are funded through EE or EHI? Is there a difference in the BCA from one approach to another?

1-25. Referring to Chapter 6, Table 6-4 on page 132 and in consideration of the Massachusetts Special and Cross-Cutting Research Area: Low-Income Single Family Health-and Safety-Related Non-Energy Impacts (NEIs) Study:

a. In calculations for the benefit cost analysis (BCA) for 4780, did the Company include any non-energy impacts for heat pump installations in the homes of low-income single family homes? If not, why not?

b. If yes, how do the non-energy benefits for health and safety compare to the benefits established in the 2016 evaluation for Massachusetts energy efficiency program administrators conducted by Three Inc., and NMR Group.[1]

c. If the benefits in your BCA were different from those in the evaluation, please recalculate the BCA for low-income single family homes using the values in the evaluation. And please indicate the differences on BCA between your initial proposal and the new calculation isolating the low-income program without including costs and benefits associated with other elements of the Electric Heat Initiative.

1-26. Referring to Chapter 6, page 131, the Company is proposing to serve "approximately 220 customer conversions." The cost of outreach is $232,574, or $1,057 per customer conversion.[2] Can the Company explain the reasoning behind the proposed expenditure of $1,057 per customer conversion?

1-27. Referring to Chapter 6, page 123, Company indicates the Electric Heat Initiative is targeted to oil heat customers, and in response to Division 5-4, the Company similarly stated: "All systems would replace or displace oil heat." However, during the February 20, 2018 technical session the Company appeared to indicate that consumers with propane or electric resistance heat would be eligible to participate in the Electric Heat Initiative. And in response to Division 5-5, the Company stated that it will collaborate with EE program strategy and program management on a targeted marketing initiative for customers who have completed weatherization through the EnergyWise Home Energy Assessment program, and who likely use oil, propane, or electric resistance heat.

[1] http://ma-eeac.org/wordpress/wp-content/uploads/Low-Income-Single-Family-Health-and-Safety-Related-Non-Energy-Impacts-Study.pdf.
[2] $52,574 for Program Marketing of Equipment Incentives plus $180,000 for Community-Based Outreach.

a. Are electric resistance customers eligible to participate in the Electric Heat Initiative?

b. Are propane customers eligible to participate in the Electric Heat Initiative?

c. Will the EHI serve New Construction?

d. Will the EHI serve small- or large Commercial & Industrial customers?

1-28. Referring to Chapter 6, page 131, the Company states that for market rate, it will offer a 20 percent rebate, and for low-income, a 100 percent rebate. Please describe the basis for the Company's proposed 20 percent rebate value for market rate.

1-29. Referring to Chapter 6, page 131, $183,000 is allocated for Oil/Propane Dealer Training over three years.

a. Is there a commitment to continue a robust heat pump program afterwards?

b. Is it expected that Oil Heat Dealers will install heat pumps through this initiative subsequent to training? If so, how will this be ensured?

c. What is the timeline for this process?

d. What will the trainings entail?

1-30. Referring to Chapter 6, what standards and quality control measures does the Company intend to implement to ensure that the heat pumps are properly installed and configured to optimize customer benefits?

1-31. Referring to Appendix 2.1, which shows an assumption of reduced electric load and a benefit of reduced Forward Capacity Market costs, please describe any benefits particular to electric resistance heat customers.

1-32. Referring to Chapter 6, page 132, Table 6-4, what is the dollar value for Avoided GHG reduction per ton?

1-33. Referring to Attachment 5-4-1 to Division-5 (page 15), Benefit Cost Ratios (BCRs) increase without dealer training and community outreach. The EHI as proposed would have a BCR of 1.12. Please indicate what the BCR's would be in the following scenarios:

a. Heat pump incentives are offered to oil customers and the ground-source heat pump program is taken out.

b. Heat pump incentives are offered to oil customers and the Oil Heat Dealer Training program is taken out.

c. Heat pump incentives are offered to oil customers and the Community Outreach program is taken out.

d. Heat pump incentives are offered to oil customers and the ground-source heat pump program, Oil Heat Dealer Training program, and Community Outreach program are all taken out.

e. Heat pump incentives are offered to electric resistance customers and the ground-source heat pump program is taken out.

f. Heat pump incentives are offered to electric resistance customers and the Oil Heat Dealer Training program is taken out.

g. Heat pump incentives are offered to electric resistance customers and the Community Outreach program is taken out.

h. Heat pump incentives are offered to electric resistance customers and the ground-source heat pump program, Oil Heat Dealer Training program, and Community Outreach program are all taken out.

1-34. Referring to Chapter 6, page 124 (Community Outreach):

a. Please describe the methods and results of the cited community-based programs in Massachusetts. Did those programs involve marketing air-source heat pumps and/or ground-source heat pumps to single-family households?

b. Please clarify what the Company means when it states that "outreach will be driven at the grassroots level by communities."

c. Will marketing and outreach for EHI be targeted to low-income communities?

1-35. Referring to Chapter 6, how does National Grid plan to encourage bundling of weatherization with heat pumps to maximize energy and cost savings?

1-36. Would customers be able to finance through Heat Loan, accessed through the Energy Wise Program?