Docket No. 4780
Third Set of Data Requests of the
Sierra Club, People's Power & Light and
Natural Resources Defense Council
March 26, 2018

Electric Transportation

3-1. Referring to Company response to Sierra Club, People's Power & Light and Natural Resources Defense Council data request 1-16, please explain how, "[a]s part of the EV Off-Peak Charging Rebate, the Company will evaluate the technical capability of Level 2 electric vehicle supply equipment to function as residential revenue-grade meters." Please provide the timeframe for that evaluation and how the Public Utilities Commission will be involved in that evaluation.

Response can be found on Bates page(s) 1.

3-2. Referring to Chapters 4 and 5, are the advanced meters proposed for deployment by the company capable of parsing load to determine which component(s) come from electric vehicles? Could the advanced meters eliminate the need for second meters for purposes of implementing electric vehicle (EV)-only time-varying rates?

Response can be found on Bates page(s) 2.

SC 3-1

Request:

Referring to Company response to Sierra Club, People's Power & Light and Natural Resources Defense Council data request 1-16, please explain how, "[a]s part of the EV Off-Peak Charging Rebate, the Company will evaluate the technical capability of Level 2 electric vehicle supply equipment to function as residential revenue-grade meters." Please provide the timeframe for that evaluation and how the Public Utilities Commission will be involved in that evaluation.

Response:

The Company has not yet created a plan for this evaluation; therefore, the Company does not have a timeframe and has not yet considered whether or how the Public Utilities Commission will be involved in that evaluation. As mentioned in Schedule PST-1, Chapter 5, Section 2.6, the Company plans to publicly share the evaluation results of the Electric Transportation Initiative.

Prepared by or under the supervision of: Carlos Nouel

SC 3-2

Request:

Referring to Chapters 4 and 5, are the advanced meters proposed for deployment by the company capable of parsing load to determine which component(s) come from electric vehicles? Could the advanced meters eliminate the need for second meters for purposes of implementing electric vehicle (EV)-only time-varying rates?

Response:

Load disaggregation technology is in its infancy and, in general, requires implementation of higher digital signal processing sampling rates than found in typical utility meters. Some manufacturers of advanced meter functionality (AMF) claim to have this technology integral to their meter offerings. National Grid intends to evaluate the functionality of this technology, as well as the functionality of other technical alternatives, for monitoring loads, such as EV charging.

This evaluation will help National Grid understand if the resolution of commercially available load disaggregation technologies is adequate and cost effective to preclude the need for a second revenue meter. National Grid is currently engaging the market in AMF procurement requests that are designed to illustrate detailed technical meter offerings that are commercially available, as well as associated cost implications for high resolution metrology capable of supporting (revenue grade) load disaggregation.

Prepared by or under the supervision of: John Leana