

2019 IRP Memorandum of Understanding Guide

As part of the approval process of VEC's most recently filed IRP in 2019, VEC agreed to the address several specific topics in the 2022 IRP as stipulated in a Memorandum of Understanding (MOU) issued February 14, 2020 in Case No. 19-3042-PET. This document serves as a guide to describe for the reader where and how the 2019 IRP addresses each of the applicable stipulations from the MOU. Below are the applicable Terms and Conditions outlined in the MOU followed by explanations, depicted in bold italics, of where and how they are each addressed in VEC's 2022 IRP.

TERMS AND CONDITIONS

VEC's next regularly scheduled IRP will reflect the following:

- 1. VEC will work with the Department, in the context of its pending rate case, Case No. I9- 4585-TF, to refine and provide sufficient funding for its Emerald Ash Borer Mitigation Plan and will file any agreed-upon revisions to that plan in that case.**

VEC included, as part of its 2020 Rate Case with the Public Utility Commission for Emerald Ash Borer (EAB) mitigation. This rate case was ultimately approved and the program implemented in 2020. Specifically, that testimony stated "We are requesting \$250,000 to conduct a pilot mitigation project in 2020, or approximately 8.5 percent of the estimated cost for removal of all of the ash trees within striking distance of VEC lines in the EAB confirmed area. This will allow us to eliminate approximately 1,500 of the estimated 17,690 ash trees along the 239 miles of VEC line in the current EAB confirmed infestation area." That pilot project was successful and we have subsequently continued to budget \$250,000 for EAB mitigation in 2021 and 2022. In 2023, 2025, and 2027, we will augment that \$250,000 budget by approximately \$300,000 in each of those years (adjusting by 3% for labor, equipment, and other cost increases. The additional \$300,000 will be moved from our Maintenance Plan budget as we use every other year to conduct work found during the asset inspection conducted during the previous years. In this manner, we can still complete necessary maintenance on VEC's system while investing in EAB mitigation at an accelerated rate.

- 2. VEC will file its next regularly scheduled IRP on or before July 15,2022. (*2022IRP"). VEC will engage the Department, beginning at least six months prior to the IRP filing deadline, to discuss IRP methods and contents, and to share drafts. VEC and the Department recognize that timely pretiling engagement by all parties can expedite preparation of the plan and contribute to the Department's timely review of the IRP.**
 - VEC and the Department held several meetings to discuss VEC's assumptions, methodology and drafts of this IRP.
 - Meetings were held on:
 - April 13, 2021
 - November 4, 2021
 - January 18, 2022

- January 31, 2022
- March 09, 2022
- March 15, 2022
- April 11, 2022
- April 19, 2022
- May 26, 2022

- 3. Currently, VEC relies on Vermont Electric Power Company, Inc. and Green Mountain Power Corporation to perform its transmission and sub-transmission modeling. VEC will work with the Department to evaluate whether it is appropriate for VEC to use alternative planning criteria for its sub-transmission system. If the parties agree that an alternative criterion is appropriate for VEC, then VEC's 2022 will reflect that new criterion.**

VEC continues to rely on Vermont Electric Power Company, Inc. and Green Mountain Power Corporation to perform its transmission and sub-transmission modeling. Given changes at the Department and the COVID-19 pandemic we did not discuss whether the alternative criterion is appropriate for VEC and thus this IRP does not reflect any changes.

- 4. VEC's 2022 IRP will include an analysis of distribution-level impacts of electrification of transportation and heating, taking into account a number of factors including, but not limited to, historic deployment patterns, physical limits, penetration, areas of concentration, areas of opportunity and observed spatial patterns, as appropriate and available. VEC will assess strategies to manage these new loads to minimize integration challenges and costs in its next IRP.**

Section 5.2 – Impacts of a Decentralized Grid of this IRP describes this distribution level impacts of electrification. This section also describes the challenges with managing these loads. Additionally, Section 6 – Data and Technology discusses how a larger DERMS system may be of benefit to VEC.

- 5. VEC will engage with the Department and other stakeholders through any formal process opened by the Public Utility Commission on the topic of distribution system planning and grid modernization.**

Outside of VEC's Rule 5.500 and 5.100 engagement with the Department and other stakeholders VEC is unaware of any other formal processes opened on distribution system planning and grid modernization. However, these were both topics that were included in this IRP. Section 5 - Impacts of a Decentralized Grid and Section 7 – Reliability and Resiliency cover these topics.

- 6. VEC will perform a quantitative analysis of strategies for peak shaving, including but not limited to, opportunities to base demand charges on coincident peaks, as appropriate, for inclusion in its 2022 IRP.**

VEC has developed a spreadsheet tool that compares the cost of various peak shaving programs to the expected savings from reduced capacity, transmission, energy and ancillary services charges from ISO-NE. The tool allows the user to enter (1) savings rates for each of the ISO-NE charges, (2) expected kW peak reduction savings for the program, (3) expected success rates of dispatching the peak shaving program at the time of the New England annual peak (for capacity charges) and the monthly Vermont Peak (for transmission charges), (4) the cost of the program and (5) the term of the program.

The tool has proven valuable in evaluating the cost-effectiveness of utility-scale battery proposals, and smaller devices such as VEC's Bring-Your-Own-Battery program for residential members.

To date, VEC has not yet analyzed opportunities for basing demand charges on coincident peaks and will continue to consider this as we look at ways to optimize rate designs in the future.