

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. 23-3799-PET

Petition of Burlington Electric Department for approval of its 2023 Integrated Resource Plan	
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MEMORANDUM OF UNDERSTANDING

WHEREAS, on November 1, 2023, Burlington Electric Department (“BED”) filed its 2023 Integrated Resource Plan (“IRP”) with the Vermont Public Utility Commission (“Commission” or “PUC”) for approval under 30 V.S.A. § 218c;

WHEREAS, BED and the Department of Public Service (“Department”) have engaged in discussions and negotiations regarding the content of BED’s 2023 IRP;

NOW THEREFORE, in consideration of the mutual promises and representations contained herein, the parties agree and stipulate as follows:

TERMS AND CONDITIONS

1. The parties agree that BED’s 2023 IRP should be approved by the Commission pursuant to 30 V.S.A. § 218c(b) insofar as it and subsequent case process have illustrated a decision-making process that is likely to meet the public’s need for energy services, after safety concerns are addressed, at the lowest present value life cycle cost, including environmental and economic costs, through a strategy combining investments and expenditures on energy supply, transmission and distribution capacity, transmission and distribution efficiency, and comprehensive energy efficiency programs. BED’s 2023 IRP also assessed economic costs with due regard to the factors listed in 30 V.S.A. § 218c(a)(1)(A) through (D).

2. The 2023 BED IRP was found to be consistent with Vermont's 2022 Comprehensive Energy Plan ("CEP").

3. The Department and BED agree that approval of the IRP does not constitute approval of any of the specific decision-making tools, analytic methods, options, or outcomes described in the IRP.

4. BED will file its next regularly scheduled IRP on or before November 1, 2026.

In connection with the preparation of its next IRP, BED agrees as follows:

I. Pre-filing engagement on the next IRP: BED will initiate the following engagement with the Department, and other stakeholders, prior to filing its next IRP.

a. At least six months prior to filing, BED will schedule a kick-off meeting with the Department to discuss the methodology and components of the next IRP and a meeting schedule covering the period between the kick-off meeting and the filing date.

b. During the pre-filing engagement period, BED will initiate meetings with the Department to discuss IRP methods, contents, and to share work in progress, including draft chapter language as available. BED will consider incorporating feedback from the Department prior to filing its final IRP with the Commission.

c. BED will follow the *Guidance for Integrated Resource Plans and 202(f) Determination Requests* issued by the Department in April 2023 (available at <https://publicservice.vermont.gov/regulated-utilities/electric/information-utilities-electric>) and will consider any revisions to this document issued by the Department at least eighteen

months prior to the scheduled filing date for its next IRP to the extent that the Guidance is consistent with, and within the scope of, 30 V.S.A. § 218c.

d. BED will prepare an economic evaluation of the expected reasonable range of potential costs and benefits to the utility of each available resource over the term of the IRP, including both existing resources and selected alternative future resources that are consistent with BED's obligations and exemptions under 30 V.S.A. Chapter 89. For existing resources, if the economic valuation shows over the twenty-year IRP planning horizon that the resource does not provide net benefit to utility ratepayers under a reference case (most likely, or expected) assumptions, BED should also describe its decision-making framework related to either continuing to maintain the resource or decommissioning the resource. This evaluation shall be prepared and available at the start of pre-filing engagement with the Public Service Department and this analysis shall be included as an appendix to BED's next IRP.

II. 2026 IRP Content: In addition to the resource evaluation described in Section I(d) above, in connection with the preparation of its next IRP to be filed on or before November 1, 2026, and consistent with the Department's current IRP guidance, BED's IRP shall include:

a. *Analysis of distribution-level electrification impacts* – BED's next IRP will again include a discussion and analysis of current and projected distribution-level impacts of electrification of transportation and heating, considering inputs including, but not limited to:

i. Customer-level detection and tracking of connected distributed energy resources ("DERs"), where DERs are roughly considered to

include at least distributed generation, energy storage, electric vehicles, heat pumps, and other flexible load resources, to the extent possible given information available to BED (e.g., Tier III rebates). This should also include discussion of processes or plans/methods to identify the locations and types of DERs being deployed, locational trends of DER deployment, including developing concentrations, as well as trends in timing of DER loads to the extent possible given information available to BED at the time.

- ii. System-wide and sector-specific load and DER forecasts and sensitivity cases that align with or incorporate data from the most recent VELCO Long-Range Transmission Plan forecast, the most recent Vermont CEP and Climate Action Plan, BED's Tier III plans, and anticipated market-driven or government-driven deployment (e.g., Clean Heat Standard or federal funding).
- iii. Description of the benefit-cost analysis completed by BED that explains how BED determines whether or not it is beneficial to BED ratepayers to support, in part or in full, the capital costs associated with distribution transformers that are necessary to support state policy (i.e. installed in order to facilitate customer investments in electric vehicles or other electrification measures). Such analysis will be considered in the context of BED's goals and policies, and should inform such in the interim leading up to BED's 2026 IRP.

b. *Plan for managing distribution-level electrification impacts:*
BED's next IRP should again include a plan for managing distribution-level impacts of electrification of transportation and heating, including at least the following:

- i. Identification of infrastructure elements expected to require upgrade, consideration of alternatives to upgrade of traditional utility infrastructure including but not limited to utilization of inverters compliant with IEEE 1547-2018 for voltage control, and discussion of related procurement and implementation plans.

- ii. Distribution power flow analysis to identify thermal and voltage constraints that may limit DER connection.
 - iii. A process for consideration of further DER deployment with quantitative analysis of DER deployments likely to reduce system upgrade needs with sufficient time to implement the DER before committing to needed distribution upgrades.
 - iv. Status report on, or plans for, deployment of, Supervisory Control and Data Acquisition (“SCADA”), Advanced Metering Infrastructure (“AMI”), Geographic Information Systems (“GIS”), load management platforms, and Distributed Energy Resource Management Systems (“DERMS”).
 - v. A discussion of implemented, planned, and potential strategies to manage DERs to minimize integration challenges and costs and optimize deployment for system benefits, including peak load management. This discussion shall describe the control potential and BED’s methods for determining cost-effectiveness (both to ratepayers and societally) of at least storage, innovative rate designs, and active load control/management programs. This discussion will inform analysis of whether BED’s infrastructure can serve anticipated demand and DERs in the planning horizon, the strategies and tools needed to avoid unnecessary or inefficient system upgrades, and how reliability will be maintained as heating and transportation are increasingly electrified.
- c. *Initiative Flowcharts:* BED’s next IRP should include completed Initiative Flowcharts, templates for which are found on the Department’s website, as described in the Department’s Guidance for Integrated Resource Plans and 202(f) Determination Requests, Part A, Section 6 (April 2023).

d. *Equity-related Considerations:* BED's next IRP will further incorporate equity into the planning process and decision-making framework through:

- i. *Stakeholder Engagement:* BED's next IRP should include a detailed discussion of how BED incorporated engagement into the decision-making framework outlined in the IRP. This should include, at minimum, a description of which communities BED engaged with, how they were engaged, what topics related to the IRP were discussed, and how feedback received at events was incorporated in scenario planning and analysis. The IRP should also discuss how BED plans to engage with stakeholders on core decisions during the term of the IRP itself.
- ii. *Assessment Metrics:* BED's next IRP should discuss how BED evaluates the distribution of benefits and costs associated with BED resource decisions across various customer classes and environmental justice focus populations (EJFP) as defined by Act 154 of 2022. This will include identifying metrics BED uses to assess these impacts and evaluating, to the extent practicable, each resource scenario against these metrics.

e. *Resilience:* BED will include a discussion of system resilience, including any anticipated resilience-focused investments along with a methodology for quantifying the impact and financial value of those investments and proposed metrics for measuring the success of those investments. The discussion should include an assessment of potential distribution system resilience threats and vulnerabilities as well as how BED plans to address them through strategies to prevent, survive, and recover from major resilience events (generally, low-frequency, high-impact events impacting large geographic areas and lasting more than 24 hours). This should include a discussion regarding the overlap in

benefits and costs between reliability and resilience-focused solutions plus proposed least-cost analysis framework for selecting solutions including an analysis of alternatives.

5. The Department and BED agree that approval of the 2023 IRP will not relieve BED of its ongoing duty to:

- a. monitor key uncertainties and the continued accuracy of assumptions and data in the IRP;
- b. continue to reevaluate the merits of the decision-making processes, including but not limited to the analytic methods used, and to adapt such processes to new techniques or information; and
- c. continue to reevaluate the merits of the strategies identified in the IRP as new information becomes available.

6. The stipulating parties have made compromises in order to reach this MOU. Accordingly, by agreement of the stipulating parties, this MOU shall not be construed by any party or tribunal as having precedential impact on any future proceedings involving the parties, except as necessary to implement this MOU or to enforce an order of the Commission resulting from this MOU. The stipulating parties reserve the right in future proceedings to advocate positions that differ from the positions set forth in this MOU, and this MOU may not in any future proceeding be used against any undersigned parties, except for enforcement of the Commission's Order adopting this MOU. However, and as recognized, in part, by ¶ 5, above, it is understood by the stipulating parties that circumstances may change, and new information may become

available between this MOU's execution and submission of BED's next scheduled IRP.

7. The parties, in accordance with 3 V.S.A. § 811, hereby waive the opportunity to file exceptions and present briefs and oral arguments with respect to a proposal for decision to be issued in this case, provided that the proposal for decision is consistent in all material respects with this MOU.

8. This MOU is expressly conditioned upon the Commission's acceptance of all its provisions, without material change or condition. In the event the Commission fails to approve this MOU in its entirety or acts to overrule or disapprove any portion hereof, each such party agrees that their agreement set forth herein may terminate, if such party so determines in its sole discretion, and each shall have the same rights as each would have had absent this MOU. In the event any material modification or condition is made to the MOU, and a party exercises its option referenced above, each party hereto shall be placed in the position that it enjoyed in this proceeding before entering this MOU.

9. This MOU may be executed in multiple counterparts, which together shall constitute one agreement.

10. This MOU is governed by Vermont law and any disputes under this MOU shall be decided by the Commission.

11. The Department will support issuance of the orders and findings of the Commission specified herein subject to the Department's obligations under Title 30 of the Vermont Statutes Annotated.

Dated at Montpelier, Vermont, this 22nd day of November 2024.

VERMONT DEPARTMENT OF PUBLIC SERVICE

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Dated at Burlington, Vermont, this 22nd day of November 2024

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