

**State of New Hampshire Department of Energy**  
**IP 2022-01**  
**Investigative Proceeding Relative to Customer–Generator Interconnection**

**Set 3 Comments of ReVision Energy**  
August 18, 2023

## **I. INTRODUCTION**

In 2022 the New Hampshire legislature passed SB 262, which requires the State of New Hampshire Department of Energy (“Department”) to conduct a proceeding “to investigate modification of the rules of the public utilities commission in PUC 903.01(e) to ensure cost-effective, predictable, and timely interconnection procedures for customer generators to the state’s electric distribution system.”<sup>1</sup>

The aim of the investigation is to make specific recommendations on measures to improve New Hampshire’s interconnection procedures. The topics specified in SB 262 include:

- (a) How to create transparent, consistent and reasonable engineering standards for interconnection, with special consideration given to established best practices used by other states as set forth in the Interstate Renewable Energy Council’s (IREC) 2019 Model Interconnection Procedures.
- (b) How to ensure timely, consistent, and reasonably-priced interconnection studies.
- (c) How to ensure just and reasonable pricing of grid modernization upgrades mandated by the distribution utility for interconnection of distributed energy resources, including transparency and consistency in pricing guidelines and appropriate cost-sharing among parties benefitting from such upgrades.
- (d) How to ensure distribution system upgrades paid for by customer-generators are not claimed as part of the utility rate-base.
- (e) Whether it is appropriate to establish an “Interconnection Working Group” convened at the department of energy to regularly assess if interconnection standards need modification.
- (f) Any other topic the department reasonably believes it should consider in order to diligently conduct the proceeding.<sup>2</sup>

ReVision Energy (“ReVision”) submitted initial comments on February 1, 2023 and Set 2 Comments on June 29, 2023. We have participated in Technical Session 1 and Technical Session 2 and appreciate the opportunity to provide our Set 3 Comments in advance of the Department’s preparation of its draft report outline in this investigation.

ReVision is an employee-owned B Corp with New Hampshire offices in Brentwood and Enfield. We also have offices in Maine and Massachusetts. ReVision develops and constructs customer-generation facilities as small as 3 kW<sub>AC</sub> and as large as 5 MW<sub>AC</sub>. ReVision has extensive technical, practical, and policy experience related to the issues considered in this investigation and submits these comments with the goal of assisting the New Hampshire Department of Energy in developing recommendations to modernize New Hampshire’s interconnection rules in accordance with SB 262.

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<sup>1</sup> Chapter 328, SB 262 – Final Version

<sup>2</sup> Ibid.

## II. OVERVIEW

As we presented in our Set 2 Comments dated June 29, 2023, Freeing the Grid's evaluation of New Hampshire's current interconnection rules indicates that there are significant opportunities for improving the process for interconnecting customer generators to align with the stated goals of SB 262.

While our comments herein contain some technical discussion in response to the questions posed by the Department in its August 1, 2023 *Request for Comments* ("*Request*"), the primary focus of our Set 3 Comments includes recommendations to guide the process of preparing the draft report outline for this investigation.

Our recommendations are based upon the following conclusions:

- New Hampshire's current rules are insufficient for regulating a "cost-effective, predictable, and timely" interconnection process.
- To address these deficiencies, a rulemaking will be necessary to meet the objectives of SB 262.
- The scope of changes required to achieve the aims of SB 262 is broad and will be impossible to develop from scratch in the timeline for this investigation. As such, the investigation will best serve the requirements of SB 262 by recommending the interconnection framework that should guide the New Hampshire Public Utilities Commission ("NHPUC") rulemaking and by providing details on the positions of stakeholders on the provisions of the recommended framework.

The conclusion that New Hampshire's interconnection rules are insufficient for meeting the objectives of SB 262 is substantiated by the Freeing the Grid evaluation and its conclusion that New Hampshire's rules fail to meet all key provisions highlighted in the state scorecard. The need for these deficiencies to be resolved through rulemaking is best substantiated in the "Introduction to Interconnection Grades", in which Freeing the Grid highlights the need for formal inclusion of provisions in state interconnection rules<sup>3</sup>:

Because interconnection rules dictate how DER projects get reviewed and approved for operation on the electric grid, they are critical to the fair and efficient processing of interconnection requests. If the rules are designed to promote streamlined review and clarity around timelines and costs, they can help to ensure that solar and other distributed energy resources are interconnected more rapidly. If the rules do not incorporate best practices related to costs, timelines, and review process transparency, the result is often clogged interconnection queues and delays that can stretch for months or years, as well as canceled projects if required grid upgrade costs are too high.

Written, comprehensive, and enforceable interconnection rules provide all parties with common expectations in a manner that serves to minimize disputes, promote fair and equitable treatment of customer-generators, and efficiently resolve disputes that arise. To meet the goals of SB 262, New Hampshire needs interconnection rules that empower the technical staff from both the utility and the developers of interconnection customer generation facilities (ICGFs) to process standard interconnection applications and agreements in a manner that is predictable for the customer. New Hampshire also needs interconnection procedures that provide the customer with a clear path to act on concerns related to the utility's application of the state's interconnection rules. Under current rules, a majority of the procedures required for interconnecting customer generators are left to the discretion of the utility. This lack of comprehensive interconnection rules has created significant uncertainty for customer-generators and developers and is requiring our executives and managers to become more formally engaged in regulatory matters due to the impact on utility customers.

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<sup>3</sup> Retrieved from <https://freeingthegrid.org/introduction-to-interconnection-grades/> on June 28, 2023.

Our conclusion that this proceeding is best served through the wholesale adoption of an existing interconnection framework is based on experiences of neighboring states that have largely started with model interconnection procedures – either based on guidance from the Interstate Renewable Energy Council (“IREC”) or the Federal Energy Regulatory Commission (“FERC”) – and have revised these procedures to address additional interconnection needs within the state. It is impossible in the time that is afforded this investigation to develop new, comprehensive interconnection standards that meet the requirements of SB 262 or to develop an authoritative list of provisions that are fundamental to meeting those requirements. There is no need to take this approach, either. The new edition of the IREC *Model Interconnection Procedures* is slated for release later this month and will empower the Department and NHPUC to leverage the most current and comprehensive best practices for utility regulators to streamline interconnection processes for the utilities and for customer generators.

It is serendipitous that this investigation is occurring on the same timeline as the Freeing the Grid results and the release of the updated IREC *Model Interconnection Procedures*. The Department can help New Hampshire leverage this unique opportunity and best meet the requirements of SB 262 by making concise and highly focused recommendations that NHPUC conduct a rulemaking to adopt the IREC *Model Interconnection Procedures*. Specifically, the final report in this investigation should recommend the adoption IREC’s *Model Interconnection Procedures* in its entirety, provide input to NHPUC on those portions of the *Model Interconnection Procedures* that might benefit from more careful consideration due to a lack of consensus between stakeholders, and recommend NHPUC initiate an immediate rulemaking to update New Hampshire’s interconnection rules.

To accomplish this, the remaining work in this investigation should focus on collecting information on those of IREC’s *Model Interconnection Procedures* upon which there is consensus between parties and those upon which there is a significant difference of opinion.

Please find our comments below on each of the issues raised by the Department in its August 1, 2023 *Request for Comments*. While all of these topics are important to resolve and of consequence for the customer generators we serve, ReVision Energy does not recommend attempting to utilize this proceeding nor the reporting from this proceeding to attempt to resolve these issues on a case-by-case basis or to make recommendations related to these issues on a case-by-case basis. Instead – as discussed above – the Department’s final report should recommend NHPUC open an immediate rulemaking to adopt the IREC *Model Interconnection Procedures* in their entirety while leaving open the opportunity to consider exceptions for specific provisions during the rulemaking process.

In Section X, we provide further details related to how this approach can inform the draft outline for the final report as required by SB 262.

### **III. INTERCONNECTION QUEUES**

In its *Request for Comments* dated August 1, 2023, the Department requested input on the following considerations related to having the utilities publish accurate, up-to-date interconnection based on input from various stakeholders.

Attachment 8 of the IREC *Model Interconnection Procedures 2019* provides comprehensive guidance related to the maintenance of a public queue. IREC’s recommendations are as follows.

#### **Public Queue Requirements**

Each utility shall maintain a public interconnection queue, pursuant to Interconnection Procedures Section I.C.3, available in a sortable spreadsheet format on its website, which it

shall update on at least a monthly basis. The date of the most recent update shall be clearly indicated.

The public queue should include, at a minimum, the following information about each interconnection application.

1. Queue number
2. Facility capacity (kW)
3. Primary fuel type (e.g., solar, wind, bio-gas, etc.)
4. Secondary fuel type (if applicable)
5. Exporting or Non-Exporting
6. City
7. Zip code
8. Substation
9. Feeder
10. Status (active, withdrawn, interconnected, etc.)
11. Date application deemed complete
12. Date of notification of Level 2 screen results, for projects undergoing review under Levels 1, 2, or 3 (if applicable)
13. Level 2 Screen results, for projects undergoing review under Levels 1, 2, or 3 (pass or fail, and if fail, identify the screens failed)
14. Date of notification of Supplemental Review results (if applicable)
15. Supplemental Review Results (pass or fail, and if fail, identify the screens failed)
16. Date of notification of System Impact Study results (if applicable)
17. Date of notification of Facilities Study results and/or construction estimates (if applicable)
18. Date final Interconnection Agreement is provided to Customer
19. Date Interconnection Agreement is signed by both parties
20. Date of grant of permission to operate
21. Final interconnection cost paid to utility

While we concur with IREC's recommendations, we do not believe this investigation provides its best service to the goals of SB 262 by attempting to gain consensus on interconnection queue requirements or gaining input from stakeholders on this issue. Doing so will dedicate limited time resources within this investigation to a matter that can more effectively be resolved through good faith negotiations between utility representatives and representatives of developers of interconnection customer generation facilities (ICGFs) coupled with the adoption of a comprehensive regulatory framework for interconnection.

The IREC *Model Interconnection Procedures* include provisions that define the queue and the requirements for maintaining the queue – provisions that are currently absent from New Hampshire's interconnection rules and are necessary for supporting “cost-effective, predictable, and timely interconnection procedures”. Publishing interconnection queue data is aligned with national utility best practices.

Rather than dedicate precious time in the final months of this investigation to attempt to collect the positions of each party on the interconnection queue procedures that best support SB 262, we respectfully request that the Department take action to recommend NHPUC open a rulemaking to adopt the *Model Interconnection Procedures*. In parallel, representatives of the utilities and developers of ICGFs can engage in good faith negotiations outside of formal proceedings to identify opportunities to implement near-term reforms that utilize the guidance of Attachment 8 of the IREC *Model*

*Interconnection Procedures* and that would serve to simplify the regulatory process for the Department and NHPUC.

Appropriate allocation of time in this investigation is critical to the long-term success of SB 262. Even if additional time in this proceeding resulted in creating consensus on interconnection queue data that should be published, those gains would be undermined by the lack of interconnection rules that define the queue, the requirements for utilities and customer generators to maintain the queue, and the dispute resolution process should the utility fail to implement reporting on the queue.

#### **IV. INTERCONNECTION STANDARD REFERENCE/PREFERENCES**

In its *Request*, the Department asks for further comment regarding our position on the use of the IREC *Model Interconnection Procedures* in this proceeding. As detailed in our comments, ReVision Energy's maintains its position that the Department center its recommendations based on IREC's *Model Interconnection Procedures*.

The Department also requests input on our preference related to the interconnection model that we feel to be most appropriate for adoption in New Hampshire and lists Connecticut, Maine, Massachusetts, and New York in addition to those developed by IREC. The interconnection procedures in each of the listed states have been developed with input from IREC through the organization's direct participation or indirectly through IREC's model interconnection procedures. The differences between the current versions of these rules in each state are largely based upon each state's unique circumstances, which include factors such as energy planning priorities, net energy billing policy, and the physical characteristics of the grid infrastructure.

NHPUC should follow the lead of all of these states by first adopting rules that are aligned with the IREC *Model Interconnection Procedures*. The final report in this investigation would best serve New Hampshire by:

- Recommending NHPUC open a rulemaking to adopt of IREC's *Model Interconnection Procedures*;
- Providing a summary of topics within the *Model Interconnection Procedures* where stakeholders have identified consensus; and
- Listing the topics for which there is disagreement between the parties that will likely be present in the rulemaking.

The Department can best gather the information needed to inform these findings by requesting the parties in this investigation review the IREC *Model Interconnection Procedures 2023* upon its release and identify sections of these procedures that would not be aligned with the intent of SB 262 if adopted.

The inclusion of this information in the final report will serve to streamline both this investigation and the NHPUC rulemaking process.

The utilities and developers of ICGFs could also help to streamline these processes by engaging in informal, good faith negotiations outside of this investigation and in advance of the NHPUC rulemaking to develop consensus on topics in the *Model Interconnection Procedures* where there is currently disagreement between the parties.

## V. COST ALLOCATION FOR DISTRIBUTION SYSTEM UPGRADES

SB 262 directs this investigation to make specific recommendations related to “[h]ow to ensure distribution system upgrades paid for by customer-generators are not claimed as part of the utility rate-base.”

Cost allocation is an important issue to ReVision Energy. We have participated in proceedings in Maine related to this issue in an attempt to follow the lead of states that have used more more sophisticated provisions to create fairness for ICGFs by considering the benefits to the rate base of certain distribution system upgrades required for interconnection. Currently, Maine’s cost allocation provisions are aligned with those of the IREC *Model Interconnection Procedures*.

While we feel there is an opportunity to explore more sophisticated approaches in New Hampshire, our overarching recommendation for this investigation is that the final report recommends to NHPUC the adoption of IREC’s *Model Interconnection Procedures* in its entirety.

Ideally, the 2023 edition of IREC’s procedures will reflect a\the growing effort to ensure that both the costs of distribution upgrades and the benefits of distribution upgrades are fairly allocated to customer generators and the utility rate base and the Department can recommend the adoption of those provisions in the final report in this investigation. If the cost allocation provisions of the IREC *Model Interconnection Procedures 2023* do not reflect evolving cost allocation models, we are willing to support the recommendation that costs are allocated as detailed in Article 4 of IREC’s current procedures as part of our larger recommendation to adopt the *Model Interconnection Procedures* in its entirety.

We believe that adopting comprehensive rules is more significant a need at this time than perfecting this portion of the *Model Interconnection Procedures* for use in New Hampshire. If the IREC *Model Interconnection Procedures 2023* does not amend language related to cost allocation, the language will stipulates that “[t]he actual cost of the Utility Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.” ReVision Energy does not find this language to be ideal for strengthening the interconnection rules, but we will be willing to concede this point for the purposes of simplifying the rulemaking process. The need for simplified comprehensive reform is that significant to us.

Similar to our recommendations in Section III, we respectfully request that the Department recommend NHPUC open a rulemaking to adopt the IREC *Model Interconnection Procedures* and avoid recommendations related to cost allocation except to report that the adoption of these model provisions will satisfy the requirements of SB 262 by ensuring “distribution system upgrades paid for by customer-generators are not claimed as part of the utility rate-base.”

## VI. INTERCONNECTION FACILITATOR OR OMBUDSMAN

In its *Request*, the Department seeks comments related to the need and responsibilities of an interconnection ombudsperson and the benefits this position could provide.

The IREC *Model Interconnection Procedures* include dispute resolution provisions that include a critical role for an interconnection ombudsperson. This position is included in the model rules due to the highly technical nature of many interconnection disputes and can serve to both reduce disputes between the

utility and customer generators and “to help resolve and mitigate interconnection disputes more efficiently”<sup>4</sup>. As explained in the *Model Interconnection Procedures 2019*:

An Interconnection Ombudsperson can be designated by the Commission (typically Commission staff) to help track and facilitate the efficient and fair resolution of disputes. Some states have begun to look at processes which engage a technical master to help resolve disputes related to engineering questions that may arise in the interconnection process.<sup>5</sup>

The provisions of the *Model Interconnection Procedures* that include responsibilities for the interconnection ombudsperson are largely focused on reviewing and mediating disputes to avoid “the need for more time-intensive complaints before the utility commissions”.<sup>6</sup>

The effectiveness of an interconnection ombudsperson is significantly strengthened by the existence of comprehensive interconnection rules that provide clear expectations for both parties – the utility and the customer generator – and a dispute resolution process that defines the requirements of both parties when engaged in a formal dispute. New Hampshire currently lacks both.

ReVision Energy is supportive of the concept of an interconnection ombudsperson for the reasons provided by IREC. Most recently, we supported regulatory and legislative efforts in Maine to develop an interconnection ombudsperson position. The Maine legislature passed a bill in 2023 to create such a position at the Maine Public Utilities Commission. The Massachusetts Department of Public Utilities approved the creation of an interconnection ombudsperson in 2013.

We support inclusion of this position in the model rules and – as stated repeatedly in our comments – respectfully recommend the Department advise NHPUC to open a rulemaking to adopt the IREC *Model Interconnection Procedures* in its entirety. Without strong interconnection rules, including strong dispute resolution provisions, an interconnection ombudsperson would be left with little regulatory guidance or authority to serve the purpose of the position.

## VII. INTERCONNECTION WORKING GROUP(S)

The Department’s *Request* notes “a strong consensus on the importance of working groups” and asks for guidance on the use of near-term, informal working groups.

The consideration of working groups is consistent with the requirement of SB 262 that this investigation determine “[w]hether it is appropriate to establish an ‘Interconnection Working Group’ convened at the department of energy to regularly assess if interconnection standards need modification.”

As we have discussed in these comments and our previous comments, the results of this investigation will be most beneficial – and most aligned with the charge of SB 262 – by evaluating the adoption of comprehensive interconnection procedures that are aligned with the model interconnection standards that have been utilized by all our neighboring states for more than a decade. Freeing the Grid highlighted the extent of the changes required to align New Hampshire’s interconnection rules with national best practices.

While we believe that working groups could ultimately serve a valuable role in helping to strengthen New Hampshire’s interconnection rules, we believe the establishment of such working groups at this

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<sup>4</sup> *Model Interconnection Procedures 2019*, Interstate Renewable Energy Council, p. 1

<sup>5</sup> *Ibid*, p. 24

<sup>6</sup> *Ibid*, p. 1

time is premature. Through interconnection policy work in other states, we have experienced significant benefit in utilities and developers engaging in informal, good faith negotiations to identify areas of consensus. This process then allows regulatory bodies to focus rulemaking and enforcement on those areas where there is disagreement between parties related to which rules are beneficial and in assessing the implementation of existing rules. We do not see benefit in having the Department commit time resources to facilitate working groups when that time is better served in evaluating the positions of stakeholders on the topics detailed in the *IREC Model Interconnection Procedures*.

As stated previously, it is our recommendation that the Department utilize the remaining time in this investigation to identify the topics within the *IREC Model Interconnection Procedures* that have broad consensus and those where there is significant difference of opinions between stakeholders. From this process, the utilities and developers can identify those areas where consensus may be able to be accomplished through good faith negotiations outside of formal Department or NHPUC proceedings.

The pathway that best supports the aims of SB 262 is to recommend NHPUC adopt rules that are aligned with IREC's *Model Interconnection Procedures* and to recommend that formal "Interconnection Working Groups" are established *after* NHPUC adopts robust interconnection rules and meet regularly to serve in a capacity similar to that of an interconnection ombudsperson to reduce the burden on NHPUC and Department staff resulting from interconnection disputes until a qualified interconnection ombudsperson is able to assume the responsibilities of the position.

## **VIII. NEW HAMPSHIRE GRADE FROM "FREEING THE GRID"**

As presented in our Set 2 Comments, it is our position that the recent release of "Freeing the Grid" provides a valuable opportunity for NHDOE to inform this investigation. We have thoroughly reviewed Freeing the Grid and concur with the conclusions related to New Hampshire's written interconnection rules.

As we commented during the second technical session on July 18, 2023, IREC is planning to release an updated version of its *Model Interconnection Procedures*, which were previously updated in 2019. It is our expectation that the updated edition will further illuminate areas of improvement for New Hampshire's interconnection rules.

It is our understanding that IREC is willing to provide support to New Hampshire by providing a summary of its conclusions in a meeting with regulators and other stakeholders. If this is the case, we respectfully recommend that NHDOE facilitate a meeting with IREC to assist with this investigation.

## **IX. SB 166 (2023)**

In its *Request*, the Department asks whether provisions of SB 166, which was enacted by Governor Sununu on August 8, 2023, should inform this investigation – either through guidance related to the Interconnection Working Groups or other topics that should be discussed in this investigation.

As discussed in Section VII, we believe that recommending the formation of Interconnection Working Groups prior to NHPUC adoption of comprehensive interconnection rules is premature. As such, we consider the inclusion of requirements from SB 166 in the final report in this investigation to be irrelevant to meeting the requirements of SB 262, namely to "ensure cost-effective, predictable, and timely interconnection procedures for customer generators to the state's electric distribution system."

The relevance of SB 166 is that it further substantiates the need for this investigation to make strong recommendations supporting the adoption of comprehensive interconnection rules that are aligned with



model interconnection procedures. The ability for New Hampshire to effectively leverage distributed energy resources is fully reliant on efficient interconnection procedures. The work required of the grid modernization advisory group will be far more effective with the adoption of strong interconnection rules. Without such action, grid modernization efforts will have to navigate significant uncertainty related to how to best interconnect these resources to New Hampshire's electrical grid.

## X. CONCLUSION

Our recommendations for the draft report outline in this investigation are as follows:

1. The framework that is most suitable for recommending in the final report is the one named in SB 262 and the one that incorporates the lessons learned from regulators around the country, including those of neighboring states in the region: IREC's *Model Interconnection Procedures*.
2. Given the disparity between New Hampshire's existing interconnection rules and those that would most effectively deliver the results outlined in SB 262, the final report should recommend that the interconnection rulemaking significantly amends the state's current interconnection rules by adopting the IREC *Model Interconnection Procedures* in its entirety. Doing so will allow New Hampshire to make substantial progress towards the development of the iterative process that many states have used to adapt interconnection procedures to their particular needs.
3. This final report would do best to recommend the adoption IREC's *Model Interconnection Procedures* in their entirety, provide input to NHPUC on those portions of the *Model Interconnection Procedures* that might benefit from more careful consideration due to a lack of consensus between stakeholders, and recommend NHPUC initiate an immediate rulemaking to update New Hampshire's interconnection rules.
4. The remaining investigation should focus on collecting information on those of IREC's *Model Interconnection Procedures* upon which there is consensus between parties and those upon which there is a significant difference of opinion.
5. We suspect that this process will be best based on IREC's *Model Interconnection Procedures 2023* due to the anticipated inclusion of comprehensive provisions related to energy storage systems. With the recent release of *Freeing the Grid* and the pending release of the updated version of IREC's *Model Interconnection Procedures 2023*, we recommend the Department of Energy engage IREC to participate in a meeting to discuss the current state of New Hampshire's interconnection rules through a review of the *Freeing the Grid* report card for New Hampshire and request that participants in this investigation review *Model Interconnection Procedures 2023* once released.

We appreciate the opportunity to provide these comments and look forward to assisting the Department in this continued effort.



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