



CLEAN ENERGY NH

Your Voice in All Energy Matters

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October 31, 2023

Jared Chicoine, Commissioner
Department of Energy,
21 S. Fruit St., Suite 10,
Concord, New Hampshire 03301-2429

**RE: IP2022-001, Investigative Proceeding Relative to Customer-Generator Interconnection
Clean Energy NH – Round 4 Comments**

Clean Energy NH (CENH) offers the following comments, which are informed by our members, in response to the NH Department of Energy’s (the “Department”) Request for Comment in the Notice issued on October 19, 2023.

CENH sincerely thanks the Department for hosting the investigation and for their willingness to provide additional opportunities for participants to engage, and further recognizes the staff’s support in coordinating the presentation to stakeholders by the Interstate Renewable Energy Council (IREC), specifically the details of the NH Freeing the Grid Report^{1,2} and the Model Interconnection Procedures 2023³. CENH has appreciated the staff’s openness to feedback during this process and looks forward to working with them and other stakeholders to address the issues raised during this proceeding.

However, CENH is concerned about the overall outcome of the proceeding, and perhaps the capacity of the Department to undertake investigations of this nature in the future. CENH addresses both issues below in the sections of Product and Process. ***CENH would emphasize that these concerns do not relate to the abilities of the staff, but instead the number of staff the Department has in total.***

In addition, CENH has attached a copy of the outline with modest feedback.

I. Product

With respect to the product of the investigation, CENH is significantly disappointed that the final report outline does not contain any recommendations regarding administrative, regulatory, or legislative changes that should be taken immediately. Instead, the report outline contains an

¹ IREC (2023). New Hampshire Interconnection Grade. Freeing the Grid Report 2023, <https://freeingthegrid.org/new-hampshire/>

² IREC (2023). New Hampshire Fact Sheet. Freeing the Grid Report 2023, <https://freeingthegrid.org/wp-content/uploads/2023/06/FTG-New-Hampshire.pdf>

³ IREC (2023). IREC Model Interconnection Procedures 2023, <https://irecusa.org/resources/irec-model-interconnection-procedures-2023/>

elaboration of the issues that the Department and parties were directed to investigate by SB262 (2022). Instead of recommending specific and actionable solutions, the report outline has called for an even broader investigation to be conducted in the months and years ahead. This is specifically what CENH cautioned against in its Set 2 Comments.

Rather than extending the investigation, CENH believes that at least two recommendations should be made. They would go a long way towards addressing the deficiencies identified in IREC Freeing the Grid Report on New Hampshire. More importantly, implementation of the recommendations would provide significant relief to New Hampshire residents, businesses, local governments, and manufacturers, who are either waiting on interconnection or planning future distributed energy resource (DER) projects. While CENH has almost two dozen solar developers as members, the overwhelming majority of our members are energy consumers, including over three dozen municipal members, representing nearly 30 percent of the state's population. Interconnection has been an issue of increasing concern to these parties.

The first recommendation is a monthly publication of the interconnection queue. As noted in previous comments, this publication could simply be an excel spreadsheet that allows developers to see where each of their projects stand. This would complement Eversource's newly launched PowerClerk and provide a stand-alone resource for Unitil and Liberty. A published interconnection queue, updated monthly, would provide a broad range of benefits by positively influencing utility and developer operations leading to more rapid growth in operating DER projects. CENH identified the benefits and details of these reports in Comments 2 and 3. The benefits to adopting this as a recommendation are very low compared to the challenges; further it has been done in other jurisdictions.

The second recommendation is that the NH Public Utilities Commission (PUC) should open a rulemaking proceeding regarding interconnection immediately. The participating stakeholders broadly agree that rulemaking would provide consistency and certainty for both utilities, developers, and project hosts/owners. The discrepancy lies with what the exact rules should contain. CENH notes that the IREC model rules have just been updated and are ideal starting point for parties to continue the discussions already begun. As a PUC rulemaking would be informed by the utilities and other stakeholders' experiences in surrounding states, as well as New Hampshire's particular needs, the final rules would be customized to version of IREC's model. That work can and should begin in a PUC rulemaking docket rather than in another working group. There is no justifiable benefit to delaying rulemaking, especially as interconnection delays remain deeply problematic and as demand for DERs remains high and will only grow in the future.

CENH acknowledges that there are other issues where the solutions are not as clear and the mechanism for resolution or implementation are known. For the remaining topics, CENH does believe a working group is best at this time, even as some of those issues could likely have been resolved in the past ten months.

II. Process

To some, the lack of specific recommendations might suggest that the investigation was a failure and was not a good use of stakeholders time as the interconnection issues facing New Hampshire will remain in place for the foreseeable future. However, CENH recognizes that the Department was formed recently and is composed of highly skilled professional staff that come from a few different departments. This is the first investigation that they have undertaken and an opportunity to learn and adapt for the ongoing and future investigations.

CENH's concern is not related to the Department staff's technical capacity. The staff leading the investigation have significant experience and expertise in the topics covered and this was an asset to the proceeding. Further, staff, as noted above, managed the human element of the proceeding. Instead, CENH is concerned that the Department is not adequately staffed to meet the roles that were assigned to it during its creation through HB2 (2021) and in later legislation, such as SB262 (2022). CENH observes that the same staff that were leading and supporting this investigation are spread across other department investigations, numerous dockets at the PUC, and supporting the Department's appearances at the legislature. The process would have benefited from time and attention, department staff do not have.

While the investigation was launched in December 2022, the process did not significantly get underway until the summer 2023. Further, the process was largely limited to a series of "back and forth" written comments and short duration work sessions. As interconnection is a complex topic with significant implications for utility safety and reliability on one hand, and consumer energy costs on the other, far more time was needed to explore the topics deeply. Rather than short technical sessions, far more time should have been set aside for direct dialogue. This could have followed the format of the more involved technical sessions that occur in PUC dockets prior to formal hearings. During these meetings, parties have much more time to consider specific positions, hear alternative perspectives, and clarify intent. That additional time is "costly", but it does afford stakeholders a much better chance of identifying where clear agreement exists, where reasonable consensus can be reached, and where legitimate challenges remain. The addition of more engaged dialogue rather than written comments would have provided parties a much greater change of selecting actionable recommendations to submit to policy makers.

As an example of the sort of reports that could be developed in the future, CENH has attached a copy of the [Final Report On the New Hampshire Independent Energy Study \(linked here as well\)](#). This report, developed pursuant to SB323 (2010), was developed by a similarly broad group of stakeholders, and delivered a clear set of recommendations within the same timeframe as this investigation. The key to accomplishing this degree of work is dedicated facilitators and additional staffing, which will allow more frequent and deeper consultation, Further, it will allow department staff to participate more broadly as stakeholders and fully exercise their experience and expertise, rather than be bogged down by admin and "traffic control". CENH looks forward to supporting an expansion of Department capacity and working on this issues together,

Sincerely,

A handwritten signature in black ink, appearing to be 'CSK' or similar, written in a cursive style.

Chris Skoglund
Director of Energy Transition
Clean Energy NH

**IP 2022-001: Investigative Proceeding Relative to Customer-Generator Interconnection
DRAFT Report Outline**

1. Title Page

2. TOC

3. Acronyms

4. Preface/High-level Background

5. Executive Summary

a. Brief history/description of investigation

- i. The investigation's Order of Notice was sent on December 5, 2022, to several participants including the three (3) investor-owned electric distribution utilities in New Hampshire, the New Hampshire Electric Cooperative (NHEC), and other interested parties.

The investigation included two (2) technical sessions, and three (3) comment solicitations. Further, all participants were invited to a presentation on September 28, 2023, by the Interstate Renewable Energy Council (IREC) to discuss the newly released (August 2023) IREC 2023 Model Interconnection Procedures, as well as a report titled "Freeing the Grid"¹. Freeing the Grid is an initiative that grades states on specific policies that help to increase clean energy adoption and access to the electric grid. Feedback on the presentation and report are presented in a later Section 7.

The result of this investigation is a general agreement among the participants on the need for clear, consistent, predictable, and timely interconnection rules, procedures, and standards. And while there are areas without consensus, all participants agree on the need to address these issues as soon as possible through various processes, including areas that do not require statutory changes.

b. Areas of consensus

- i. The need/desire for clarity and consistency of interconnection rules, processes, and standards.
- ii. Utility hosting capacity maps provide useful information.
 1. Highlight that all utilities have functioning hosting maps (part of SB 262)
- iii. Interconnection application fees are appropriate.
- iv. Utilization of third-party portals/program management software such as PowerClerk™² anticipated to be beneficial in improving interconnection processes
 1. Cite current utility efforts (Eversource and Unitil) in this area.

¹ <https://freeingthegrid.org/>

² <https://www.cleanpower.com/powerclerk/>

- v. Benefits of this investigative effort and strong willingness of participants to work together
 - vi. Need for Working Groups
 - 1. Two groups recommended: Technical/Engineering and Administrative/Process.
 - 2. Preference for DOE led/facilitated process. Funding resources are necessary.
 - vii. Desire for facilitators / ombudsmen for interconnection requests and processing
 - 1. Funding resources needed.
 - viii. Recognition the utilities need an efficient and flexible means to address variability of interconnection applications/requests
 - 1. Cite general increase in requests to utilities.
 - 2. Group Net Metering (GNM) registration/administration.
 - ix. Consensus on benefits of regularly updated interconnection queue by utility, but not on format
 - x. Other
- c. Non-consensus and key issues to address
- i. Which interconnection model(s) should be used as basis for NH rules (IREC, MA, CT, other States)
 - 1. A new IREC 2023 Model Interconnection Procedures was released in August.
 - a. DOE will be requesting participant feedback.
 - 2. Non-utility participants generally favor adopting IREC. Utilities open to using IREC as a base and modifying for application in NH.
 - 3. Whether or not all NH utilities use an identical process, especially for larger systems, > 100 kVA.
 - ii. Cost allocation methodologies
 - 1. Utilities prefer traditional principles that generally align with cost causation but are open to further discussion.
 - 2. Developers prefer more socialization of costs.
 - iii. Hosting capacity map information enhancements and whether planned capital projects should be identified
 - iv. Interconnection queue: How information is presented and method(s) of communication
 - v. Time limits for various processes and how to enforce / hold parties accountable
 - vi. How to organize and provide resources (fund) for Working Groups and Facilitators/Ombudsmen
 - vii. Application of N-1 criteria

Commented [1]: Reference IL here for small DG IX best practices.

Most recently the interconnection procedures in Illinois and New Mexico have largely aligned to IREC's terminology for limited export controls, but have streamlined interconnection review processes beyond what is recommended within IREC 2019 Model Interconnection Procedures.

Commented [2]: Note proposal in NEM/VDER docket on standard IX fee for small scale systems

This is not an indication of support for this position in that docket.

viii. Group Net Metering (GNM) interconnection requests

ix. Other

d. Summary of Recommendations

i. Statutory Recommendations

1. No statutory recommendations are recommended until the Working Groups have made their final recommendations.

ii. Working Groups

1. Creation of two DOE led Working Groups

a. Technical/Engineering

a. On-going to regularly address applicable engineering standards, codes, and best practices.

b. Administrative/Process

a. On-going to regularly address NH interconnection rules, processes, fees, dispute resolution process, schedules, and other administrative issues.

b. Develop/adopt NH interconnection rules that are based on IREC 2023/MA/CT and other relevant interconnection models and make recommendations to DOE/PUC for 900 rule changes and additions. May ultimately result in making statutory recommendations.

c. Develop interconnection queue requirements.

2. Working groups to make final recommendations for model interconnection standard(s), interconnection queue, engineering standards, for inclusion in 900 rules, and potentially statute changes.

3. Identify funding for DOE staff/consultants for technical assistance/consultants and working group facilitation and ombudsman for interconnections.

iii. Near-term recommendations prior to obtaining final recommendations from Working Groups

1. Encourage participants to develop informal minimum interconnection queue criteria.

2. Encourage utilities to post/report basic interconnection queue information.

3. Encourage informal technical and procedural working groups to begin immediately.

Commented [3]: There should be administrative and regulatory recommendations. See CENH written comments.

4. Utility voluntary collaboration on timelines, fee structure, fast-track/preliminary review criteria.
 - a. Cite existing similarities/consistency with < 100 kVA, and particularly with < 10 kVA.
 - b. Work to develop consistent interconnection process and requirements for > 100 kVA.

6. Customer-Generator and Distributed Energy Resource (DER) Background

Provide general high-level description of Customer-Generator history, benefits, issues, and concerns

- a. Customer-Generator Interconnection overview
 - i. Purpose: DER, renewable energy, diversity of generation, etc.
 - ii. Issues and concerns
- b. The utility perspective
 - i. Keeping the system stable and reliable.
 - ii. Financial impact and business model. (i.e. Lost revenue, costs, etc.)
 - iii. Resources needed to address variability (ebb and flow) of interconnection requests.
- c. **Developer** perspective
 - i. Need for clarity and consistency of rules, fees, and timelines.
 1. Need for solutions to ensure small customers can plug into the grid wherever with technology solutions (smart inverter volt-watt/volt-var)
 - ii. Interconnection queue.
 - iii. Up-to-date utility distribution system status.
 - iv. Fair, reasonable, and transparent cost-allocation.
 1. **Set, stable price for small scale customers**
- d. Current Puc rules, statutes, and utility standards and tariffs regarding interconnection
 - i. Puc 900 Rules
 - ii. Utility Interconnection Standards and Tariffs
 - iii. Statutory (RSA 362:A) requirements applicable to interconnection
- e. Recent legislative history and amendments
 - i. SB 262
 1. Details regarding this investigation are included in Section 7
 - ii. Other

Commented [4]: Change to: Developer/CUSTOMER

Commented [5]: Include this here.

- f. IREC
 - i. General description of IREC and recent IREC 2023 Model Interconnection Procedures
- g. Other State Models
 - i. High-level overview of other States, particularly MA, CT, NY, - Illinois and New Mexico should be included here.
- h. FERC SGIP
 - i. FERC 2023? For transmission side of discussion
 - j. Freeing the Grid
 - i. Description of Freeing the Grid, as well as NH report and other NE state grades.

Commented [6]: Include these here as well.

7. Interconnection Investigation

SB 262 Directives

As referenced in the Preface, Senate Bill 262 (SB 262)³ was signed into law on July 8, 2022. This bill addresses customer generators and includes the following requirement, beginning on page 2, line 2:

- I. Within 90 days of the effective date of this section, the department of energy shall initiate 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. In so doing, the department shall consult with electric distribution utilities, distributed generation project developers, and any person or entity the department deems relevant to its study.
- II. The department's investigative proceeding shall examine and make specific recommendations concerning the following:
 - 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.

³ https://gencourt.state.nh.us/bill_status/legacy/bs2016/billText.aspx?id=2063&txtFormat=html&sy=2022

- 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.
- III. The department shall report its findings and recommendations to the standing committees of the house of representatives and senate with jurisdiction over energy and utility matters no later than one year after initiating the proceeding. The report shall identify ways any recommended statutory changes can reduce barriers to cost-effective, predictable, and timely interconnection of distributed energy resources to the state’s electric distribution system.

Department of Energy Investigation

SB 262 - Chapter 328:4, I (2022)

As stated in the Preface, The Department formally initiated this investigation on December 5, 2022, titled “IP 2022-01 – Investigative Proceeding Relative to Customer-Generator Interconnection”⁴. The investigation Order of Notice was sent to several participants including the three (3) investor-owned electric distribution utilities in NH, the New Hampshire Electric Cooperative (NHEC), and other interested parties.

Describe Order of Notice, Participants, Technical Sessions, Comments Received.

SB 262 - Chapter 328:4, II (2022)

For all items of SB 262 indicated above, include details in sections below of participant feedback, areas of consensus, non-consensus (areas to address), and recommendations.

- 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.

Write-up. Will include any feedback from the Freeing the Grid report and presentation.

- b. How to ensure timely, consistent, and reasonably-priced interconnection studies.

Write-up

- 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

⁴ [Investigative Proceedings | NH Department of Energy](#)

and consistency in pricing guidelines and appropriate cost-sharing among parties benefitting from such upgrades.

Write-up

- d. How to ensure distribution system upgrades paid for by customer-generators are not claimed as part of the utility rate-base.

Write-up

- 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.

Write-up

- f. Any other topic the department reasonably believes it should consider in order to diligently conduct the proceeding.

Write-up

SB 262 - Chapter 328:4, III (2022)

Write-up identifying this as the report and how it addresses this requirement.

8. Conclusions and Summary of Recommendations

Provide summary of conclusions and recommendations and address each topic below as a minimum. Essentially revisit executive summary.

- a. Brief summary statement of investigation
- b. IREC and State Model(s)
 - i. Brief summary
- c. Freeing the Grid (FTG)
 - i. Brief summary of FTG
- d. Statutory Recommendations
 - i. No statutory recommendations are recommended until the Working Groups have made their final recommendations
- e. Working Groups
 - i. Creation of two DOE led Working Groups
 - 1. Technical/Engineering

- a. On-going to regularly address applicable engineering standards, codes, and best practices.
- 2. Administrative/Process
 - a. On-going to regularly address NH interconnection rules, processes, fees, dispute resolution process, schedules, and other administrative issues.
 - b. Develop/adopt NH interconnection rules that are based on IREC 2023/MA/CT and other relevant interconnection models and make recommendations to DOE/PUC for 900 rule changes and additions. May ultimately result in making statutory recommendations.
 - c. Develop interconnection queue requirements.
 - d. Working groups to make final recommendations for model interconnection standard(s), interconnection queue, engineering standards, for inclusion in 900 rules, and potentially statute changes.
- 3. Identify funding for DOE staff/consultants for technical assistance/consultants and working group facilitation and ombudsman for interconnections.
- f. Near-term recommendations prior to obtaining results from Work Groups
 - i. Encourage participants to develop informal minimum interconnection queue criteria.
 - ii. Encourage utilities to post/report basic interconnection queue information.
 - iii. Encourage informal technical and procedural working groups to begin immediately.
 - iv. Utility voluntary collaboration on timelines, fee structure, fast-track/preliminary review criteria.
 - 1. Cite existing similarities/consistency with < 100 kVA, and particularly with < 10 kVA.
 - 2. Work to develop consistent interconnection process and requirements for > 100 kVA.
- g. Budgets for DOE staff, consultants, etc.
- h. Closing statement

Commented [CS7]: Extra emphasis here. DOE staff are spread across many different areas of responsibility. Facilitators will allow them to participate as stakeholders and fully exercise their experience and expertise rather than be bogged down by admin and "traffic control".

9. Appendices

- a. SB 262
- b. Puc 900
- c. Freeing the Grid report
- d. IREC 2023
- e. DOE Order of Notice
- f. Notice of Tech Session 1 and Request for Comments
- g. Notice of Tech Session 2 and Request for Comments

- h. Utility Interconnection Documents and Tariffs?
- i. The Interconnection Bottleneck Study?

This initial draft was prepared by the NH Department of Energy