



DEPARTMENT OF ENERGY
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October 19, 2023

**IP 2022-01 – Investigative Proceeding Relative to Customer-Generator
Interconnection**

Request for Comments

On December 5, 2023, the Department of Energy (“Department”) issued an Order of Notice initiating a proceeding to investigate the potential 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.

As required in SB 262 (2022), this investigation will result in the Department reporting its findings to the standing committees of the House of Representatives and Senate with jurisdiction over energy and utility matters. The Department has prepared an initial draft report outline reflecting comments received to-date, as well as the discussions from the two technical sessions. Attached is a draft report outline for participant feedback.

On September 28, 2023, an online presentation of the Interstate Renewable Energy Council (IREC) 2023 Model Interconnection Procedures and the Freeing the Grid report was provided by IREC staff. An invitation to this presentation was provided to all participants of this investigation by Clean Energy New Hampshire. The Department welcomes feedback on this presentation, as well as the 2023 Model Interconnection Procedures and Freeing the Grid Report.

Any comments regarding the attached draft report outline, as well as any other feedback regarding the investigation, should be submitted to the Department as Set 4 Comments. Set 4 Comments must be filed with the Department by October 31, 2023, by emailing them to Proceedings@energy.nh.gov.

Participants wishing to be on the service list for this proceeding should provide an email address to Proceedings@energy.nh.gov. Please include the above referenced docket number in the subject line of any email.

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IP 2022-001: Investigative Proceeding Relative to Customer-Generator Interconnection

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.

¹ <https://freeingthegrid.org/>

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- 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 Unittel) in this area.
 - 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

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

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- 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
- 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

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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.
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.
 - ii. Interconnection queue.
 - iii. Up-to-date utility distribution system status.
 - iv. Fair, reasonable, and transparent cost-allocation.
- 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

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- 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
- 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.

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

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- 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](#)

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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

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- 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

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

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

This initial draft was prepared by the NH Department of Energy