

STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION

ELECTRIC AND NATURAL GAS UTILITIES

DEVELOPMENT OF A STATEWIDE, MULTI-USE ONLINE ENERGY DATA PLATFORM

Docket No. DE 19-197

**SETTLEMENT AGREEMENT**

This Settlement Agreement (“Agreement”) is entered into by and among Liberty Utilities (Granite State Electric Corp.) (“Liberty Electric”) and Liberty (EnergyNorth Natural Gas) Corp. d/b/a Liberty (“Liberty Gas”) (collectively “Liberty”), Public Service Company of New Hampshire d/b/a Eversource Energy (“Eversource”), Unitil Energy Systems, Inc. and Northern Utilities, Inc. (collectively “Unitil”) (all collectively “NH Utilities”); the Office of the Consumer Advocate (“OCA”); Clean Energy New Hampshire; Mission:data Coalition (“Mission:data”); the Town of Hanover; the City of Lebanon; Community Choice Partners, Inc.; Eversource customer Kat McGhee; and Commission Staff participating in this proceeding (“Staff”), (all collectively referred to as the “Settling Parties”) to resolve certain issues related to the above-captioned proceeding and to provide for a process for the resolution of any remaining issues. This Agreement constitutes the recommendation of the Settling Parties for the New Hampshire Public Utilities Commission (“Commission”) with respect to the issues addressed herein.

**I. INTRODUCTION AND PROCEDURAL HISTORY**

By Order of Notice entered on December 13, 2019, the Commission opened this administrative proceeding at the express directive of the General Court pursuant to Chapter 286

of the 2019 New Hampshire Laws, which was effective on September 17, 2019 and enacted sections 50 through 54 of RSA 378. *See* RSA 378:51, II (requiring the Commission to “open an adjudicative proceeding within 90 days of the effective date of this subdivision, to which all electric and natural gas utilities shall be mandatory parties”). Chapter 286 directs the Commission to “require electric and natural gas utilities to establish and jointly operate a statewide, multi-use, online energy data platform” subject to certain limitations and requirements. RSA 378:51, I. RSA 378:51, II sets forth a list of platform-related issues the Commission must resolve in this proceeding. Additionally, RSA 378:51, III requires the Commission to “defer the implementation” of the platform upon a determination that “the cost of such platform to be recovered from customers is unreasonable and not in the public interest.”

The Commission conducted a prehearing conference on February 3, 2020 and by secretarial letter issued on February 14, 2020 approved an agreed-upon procedural schedule. In due course and without objection, the Commission granted all intervention requests. The parties submitted comments on the scope of the docket on March 11, 2020 and thereafter conducted a series of technical sessions. In April 2020, various parties submitted a series of “use case” proposals in an effort to clarify the desired capabilities of the statewide, multi-use, online energy data platform. The NH Utilities thereafter filed written comments on the use case proposals, and a total of three technical sessions were devoted to discussing the use cases, the NH Utilities’ comments, and reply comments of the non-utility parties.

On August 12, 2020 (the deadline originally established by the Commission) Packetized Energy Technologies submitted written direct testimony. On August 17, 2020, pursuant to an extension granted by the Commission, the Commission received written direct testimony from Eversource and Unitil (filing jointly); Liberty; Clean Energy New Hampshire; the OCA;

Mission:data; UtilityAPI, Inc.; the City of Lebanon, the Town of Hanover, Community Choice Partners, Inc., and Ms. McGee (filed jointly under the banner of the “Local Government Coalition”); Greentel Group; and Staff. The Local Government Coalition submitted revised written testimony on August 18, 2020, making certain minor corrections.

At the request of Staff, the Commission approved certain changes to applicable discovery deadlines on September 9, 2020. Written discovery ensued, as did both formal and informal technical sessions. On October 23, 2020, the Commission received rebuttal testimony from the OCA, Eversource and Unitil (filing jointly), Mission:data, the Local Government Coalition, UtilityAPI, and Staff.

Thereafter, additional discovery, technical sessions, and settlement conferences ensued, culminating in this proposed resolution of the issues the Commission must address in this docket.

## **II. SETTLEMENT TERMS**

RSA 378:51, I requires the utilities to establish a statewide, multi-use, online energy data platform (“Platform”). RSA 378:51, II requires the Commission to use this adjudicative proceeding to determine certain key attributes and elements of the Platform. Specifically, those attributes and elements are:

- (a) Governance, development, implementation, change management, and versioning of the statewide, multi-use, online energy data platform;
- (b) Standards for data accuracy, retention, availability, privacy, and security, including the integrity and uniformity of the logical data model; [and]
- (c) Financial security standards or other mechanisms to assure compliance with privacy standards by third parties.

The Settling Parties stipulate and agree that the terms set forth in this Agreement constitute a resolution of the issues in this proceeding that meets the requirements of RSA 378:51, II, either by addressing them substantively and fully herein or, in some instances, by providing for a

collaborative mechanism that will allow issues to be addressed at suitable junctures in the future subject to full Commission oversight. The Settling Parties recommend that the Commission keep this proceeding open until such time as the Commission finds that all determinations required pursuant to RSA 378:51, II have, in fact, been made.

The Settling Parties recommend in light of certain cost ascertainment measures to which the Settling Parties have agreed herein, the Commission should not at this time defer the implementation of the Platform pursuant to RSA 378:51. Rather, the Settling Parties recommend the Commission make any cost related determinations after completion of the Request for Proposals (“RFP”) process described in this Agreement. The Settling Parties further recommend that at such time, the Commission should determine: (1) the reasonableness of the Platform’s overall costs pursuant to RSA 378:51, III; (2) the reasonableness of any charges the NH Utilities may impose upon third parties for use of the Platform pursuant to RSA 378:54, I; (3) the mechanism through which utilities may recover platform costs from customers in a timely manner pursuant to RSA 378:54, II, considering mechanisms other than a utility’s distribution rate case to ensure timely recovery, which would not preclude recovery through a rate case; (4) the venue through which the Commission shall determine whether the Platform was prudently implemented; and (5) the appropriateness of any performance incentive proposal.

The Settling Parties agree that the terms of this Agreement satisfy the Platform requirements set out in RSA 378:52, which creates obligations for the NH Utilities, namely that the NH Utilities shall:

- I. Design and operate the energy data platform to provide opportunities for utilities, their customers, and third parties to access the online energy data platform and to participate in data sharing.
- II. Require, as a condition of accessing the online energy data platform, that a third party complete a qualification and registration process to ensure that any

customer data downloaded from the platform remains in a safe, secure environment according to data privacy standards established by the commission.

III. Administer the online energy data platform in a manner consistent with RSA 363:38.

The Settling Parties further stipulate and agree that the terms as set forth in this Agreement pertaining to Platform design, operation, content and use, governance, security, privacy, and registration and participation standards establish the framework to satisfy these obligations.

Accordingly, the Settling Parties stipulate and agree that the development, operation, and administration of the Platform by the NH Utilities pursuant to the terms and conditions set forth in this Agreement is in the public interest and fully consistent with and authorized by all applicable New Hampshire law that is enforceable by the Commission. The terms set forth in this Agreement constitute a comprehensive settlement and, as such, all terms are interdependent; each Settling Party's agreement to each individual term is dependent upon agreement with and Commission approval of all terms.

#### **A. Platform Design**

The Settling Parties stipulate and agree that a virtual Platform design is most feasible and cost-reasonable to construct and is also adaptable to functionalities that may be desirable in the future. Accordingly, the NH Utilities shall develop a Platform consisting of (1) a single, unified internet-hosted resource web portal and central Application Programming Interface ("API") that allows customers and other non-utility third-parties to register to access and share combined utility data and participate in sharing additional data directly via APIs, through which market participants can register for access to data (the "Platform Hub"); (2) APIs developed individually by or for each NH Utility that shall furnish data to the Platform Hub ("Utility-

Specific APIs”); and (3) a Platform “back end” at each NH Utility that shall operate in parallel with the other two elements, so that Utility-Specific APIs and the Platform Hub share standardized data in accordance with Connect My Data supported standards adopted by the Green Button Alliance and aggregated data in accordance with Appendix A. The third element is referred to herein as “Back-End Integration.” The initial scope of the Platform components are further described in Appendix A with additional development and refinement expected through the initial design for the RFP process, the RFP process itself and implementation. In addition to the three specific elements, the Platform shall also include user interface, user support, ongoing maintenance, and security reviews of Platform users as further described elsewhere in this Agreement and the Appendices. Each NH Utility shall use a common model to standardize data to have the same meaning, format and relationships, referred to herein as the “Logical Data Model”, the current version is included as Appendix B. Each NH Utility shall, at a minimum, provide the data types specified in the Logical Data Model via the Platform Hub. No data supplied to the Platform Hub by a Utility-Specific API shall be stored by the Platform Hub except as may be technically necessary for brief periods to allow the Platform Hub to function effectively.

Each NH Utility shall develop a plan for program administration that includes, but is not limited to: (1) NH Utilities’ customer consent processes and records maintenance; (2) Platform user authorization and registration processes, including security authorization and monitoring; (3) tracking and auditing; and (4) preferences (i.e., which accounts to share and other future options). Each such plan for program administration shall be subject to the approval of the Platform Governance Council described in Section C below.

Each NH Utility shall integrate customer support regarding data sharing activities into the work of the NH Utilities' customer contact center so that problems with the Platform Hub are directed to the appropriate NH Utility or, if the NH Utility or Platform Governance Council deems it advisable, to the entity operating and managing the Platform Hub. The Platform Hub operator shall provide a method by which Platform users, who are not NH Utility customers, may request and receive technical support.

The Settling Parties agree that all data provided by the Platform Hub shall conform to the Logical Data Model and that any data provided that is included in a current Green Button Connect My Data standard, unless otherwise agreed by the Platform Governance Council and approved by the Commission, shall be provided in accordance with that standard. As additional data elements are identified for future inclusion in the Platform, that are not part of the Green Button Connect My Data Standard, the NH Utilities or Governance Council should seek to obtain certification from the Green Button Alliance before the Council considers other standard formats for data sharing. If such data is added to the Green Button standard in future revisions, the Logical Data Model shall be updated to reflect such revisions and shared data shall be provided via updated Green Button standards. If available, at least 24 months of historical customer data shall be provided by the NH Utilities, in a standardized format that is as accurate and contemporaneous to other data available in the NH Utility systems. Data shall be made available in a timely manner as long as the customer's utility account and authorization remain active.

Customer authorizations shall extend for a maximum of up to five years with an annual notice providing an option to revoke such authorization. At the conclusion of five years a notice to the customer's email address (or other contact method if email address is not available) shall

be sent with instructions on how to affirmatively renew the authorization. Customer relocations that result in utility account closure shall automatically trigger notice and expiration of applicable authorizations, unless maintaining authorizations for non-closed accounts and their associated meters is included in the original authorization's scope. Revocations shall not be triggered by routine changes to account information, including but not limited to contact information, which do not involve utility account closure.

## **B. Platform Administration and Operation**

The Platform Hub shall be developed and operated and hosted by a party or parties under contract to the NH Utilities. Regardless of the arrangements for operation and administration of the Platform, the NH Utilities shall have a role in administering and enforcing the security and privacy standards of the Platform, including Platform user eligibility and security standards, as further described in Section D and Appendix C, and customer consent, as described below in Appendix F of this Agreement. The entity or entities responsible for developing and hosting the Platform Hub shall be selected through an RFP process as discussed in the Cost Reasonableness Section E of this Agreement.

## **C. Governance**

To provide for appropriate oversight of the Platform, the NH Utilities shall establish a Platform Governance Council ("Council"). The Council shall consist of the following 12 members: (a) three utility representatives, one chosen by each investor-owned utility that shares data via the Platform Hub, provided that affiliated electric and natural gas utilities shall be entitled to one member representing both affiliates; (b) three representatives of third-party users



of Platform data; (c) one representative of New Hampshire municipalities either participating in or with an aggregation plan developed for community power aggregation pursuant to RSA 53-E; (d) one representative of the OCA, chosen by the Consumer Advocate; (e) one representative of large commercial/industrial customers; (f) one representative of small commercial/industrial customers; (g) one representative of the academic community with an interest in research germane to the purposes of the Platform; and (h) one representative from Staff.

Within 15 days of the Commission approving this Settlement, the NH Utilities and the OCA shall appoint their respective representatives to the Council. The term for initial representatives shall be two years. The initial representative for municipalities and community power aggregators shall be Assistant Mayor Clifton Below of the City of Lebanon. The initial representative for the academic community shall be Assistant Professor Amro M. Farid of the Thayer School of Engineering at Dartmouth College. The initial representatives for third-party users of Platform data shall be Michael Murray, President of the Mission:data and Ethan Goldman in his capacity as consultant to Clean Energy New Hampshire. Initial representatives are individuals that have actively participated in Docket No. DE 19-197. The initial third representative for third-party users of Platform data, the initial representative for small commercial / industrial customers; and the initial representative for large commercial / industrial customers shall be determined by the Council members listed above by majority vote.

To the extent not otherwise addressed by this Agreement or the order of the Commission approving this Agreement, the responsibilities of the Council shall be:

- (a) to determine the functionality and approve the design of the Platform;
- (b) to review and provide input to the terms and conditions of any RFPs, requests for information (“RFIs”), or requests for quotation (“RFQs”) issued by the NH Utilities in connection with the development, construction, or operation of the Platform as contemplated in Appendix D;

- (c) to review and provide input regarding any contracts entered into by the NH Utilities in connection with the development, construction, or operation of the Platform;
- (d) to review changes to the Logical Data Model and ensure that any data covered by a Green Button Connect My Data standard is provided in accordance with that standard;
- (e) to approve updates to the Platform, as needed, to reflect current standards applicable to the Platform for data privacy, data security, data accuracy, and data availability within the parameters of approved budgets;
- (f) to recommend to the Commission changes to financial security standards or other mechanisms to assure compliance by Platform users with access standards consistent with the requirements of both RSA 378:50-54 and RSA 363:38;
- (g) to provide operational oversight and maintenance guidance for the Platform, including how maintenance scheduling and offline periods for the Platform will be determined; reviewing Platform feature enhancements over time; and review of and input on the contract between the NH Utilities and the entity operating the Platform Hub;
- (h) to establish performance metrics for the operation of the Platform, including resolution of technical support and defect resolution issues;
- (i) to review and approve the service levels and to review and provide input on enforcement mechanisms for each part of the Platform as contemplated in Appendix E;
- (j) to approve any Platform operation policy updates;
- (k) to develop, as appropriate, a performance incentive program proposal for recommendation to the Commission where any proposal clearly defines the scope, metrics, and calculations regarding the program;
- (l) to periodically review customer and Platform user support activities provided by the NH Utilities to ensure the Platform is compliant in maintaining a system that is useable, functioning, and free from error in accordance with established performance metrics;
- (m) to update processes regarding Platform user suspension and termination, all consistent with the terms described herein related to a cyber-security event where immediate suspension must remain an option, as described in Appendix C;
- (n) to investigate and refine details concerning the provision of customer data up to the moment of revocation or expiration of a data-sharing authorization;
- (o) to investigate use of customer data by Platform users in response to a customer concern or complaint regarding misuse of customer data;

- (p) to decide upon updates and enhancements to the customer experience component of the Platform, the preliminary design of which is provided in Appendix F and to investigate the feasibility of allowing customer authorization without the need to create an online account via a “one-time access” approach;
- (q) to provide guidance on education, marketing, and support materials, including the development of frequently asked questions and other guidance to help Platform users and NH Utility customers understand the expectations and parameters of the user authorization and customer consent processes; and
- (r) to resolve in a timely fashion any disputes that arise between users of the Platform and the NH Utilities or contracted Platform Hub operators.

The Council shall make its decisions by consensus. Each member of the Council shall work in good faith to achieve consensus on matters addressed by the Council. In the event there is no consensus of the Council as to any matter within its authority, any member affected by the matter may request that the Commission resolve the dispute. Commission determinations shall be binding when final pursuant to applicable law.

The Council shall:

- (1) adopt bylaws that:
  - a. identify the responsibilities of members,
  - b. determine what officers the Council requires and their responsibilities,
  - c. define the characteristics, terms, and method of selecting future members other than Staff, OCA, and the NH Utilities,
  - d. provide guidance on the consensus decision-making process,
  - e. make provision for the appropriate treatment of confidential information, and
  - f. determine the appropriate notice, venue and media mechanisms for meetings of the Council;
- (2) fill vacancies on the Council after the appointment of its initial members (other than for the seats reserved for Staff, the OCA, and the NH Utilities);
- (3) appoint its officers and any administrative support providers for purposes of meeting scheduling, meeting logistics, and recordkeeping;

- (4) determine when and where it shall meet (including, as appropriate, virtual meetings conducted via videoconferencing platform);
- (5) within 90 days of the Commission's approval of this Agreement, either establish initial performance metrics for the operation of the Platform, including resolution of technical support and defect resolution issues, or report to the Commission such discussions and the Parties' positions; and
- (6) hold its initial meeting, which shall be convened by the representative of Unitil, within 30 days of a Commission Order approving this Agreement.

The Settling Parties expressly acknowledge that the Council is not an instrumentality of government. The Council shall provide an analysis to the Commission consisting of a narrative statement and evaluation that provides support for any issue or recommendation that has cost recovery implications. However, any issue or determination that exceeds the costs approved by the Commission that would necessitate further cost recovery from NH Utility customers shall be submitted for Commission review and approval. Likewise, any determination implicating inclusion of grid operations or planning data shall be subject to and contingent upon Commission review and approval.

#### **D. Platform Security and Privacy Standards**

The Settling Parties stipulate and agree that the security questions and requirements as described in Appendix C (Cyber Security Requirements) are appropriate and shall be implemented to protect customers and their data adequately and to otherwise comply with applicable New Hampshire law, including but not limited to RSA 378:50-54 and RSA 363:37-38. Appendix C describes the information to be provided for a Platform user to gain access to the Platform and thus to customer usage data of the NH Utilities accessible through the Platform. The Settling Parties stipulate and agree that the NH Utilities shall be prohibited from unilaterally imposing, without an order from the Commission or unless required by law, any term, condition,

restriction, requirement, cost or financial security upon Platform users that is not explicitly specified in this Agreement. The privacy and security requirements described in Appendix C (Cyber Security Requirements) shall be associated with and are only valid for NH Utility customer and customer usage data.

The Settling Parties stipulate and agree that, consistent with RSA 378:50-51, customers of a NH Utility must affirmatively opt-in to share their individual energy-usage data via the Platform in accordance with Appendix C or as otherwise ordered by the Commission or required by law.

NH Utilities shall conduct additional reviews of the privacy and security requirements from time to time and propose changes to the Council for approval. Once such changes are approved, the NH Utilities and Platform Hub operator shall implement any necessary and appropriate modifications of the privacy and security requirements.

#### **E. Cost Reasonableness**

The Settling Parties stipulate and agree that the Commission shall keep this docket open for the purpose of determining whether the implementation of the Platform should be built or whether it should be deferred pursuant to RSA 378:51. To facilitate this determination, the Settling Parties stipulate and agree that as soon as is practicable, but in any event no longer than one (1) year from the date of Commission approval of this Agreement (a) the NH Utilities shall utilize an RFP process as contemplated in Appendix D which the Council shall review to select one or more contractors to develop and operate the Platform Hub; (b) the Council shall review on a confidential basis all responses to the RFP; (c) the Council shall make a recommendation to select one or more contractors to develop and operate the Platform Hub; (d) the NH Utilities

shall utilize an RFP process to hire a consultant to review for the Council the Utility proposals for Back-End Integration and construction of the Utility-Specific APIs for consideration as the Settling Parties balance the needs of the Platform and the NH Utility Back-End Integration; and (e) the NH Utilities and the Council shall develop for submission to the Commission an estimate of the cost of the Platform development, deployment, and operation including both Back-End Integration and the construction of the Utility-Specific APIs and Platform Hub, and an estimated range of annual operation costs to be incurred by Platform Hub operation. The Settling Parties agree to work collaboratively and in good faith to complete these tasks within a reasonable period and as soon as is practicable. The NH Utilities each provided the Settling Parties with order of magnitude preliminary estimates for price and scope of the Utility-Specific APIs and Back-End Integration, with Eversource also estimating price and scope of the Platform Hub development. The Settling Parties agree that these numbers are preliminary, were based upon the NH Utilities' estimates for building the Platform in-house, and shall be investigated through the use of a consultant and an RFP process to further inform the Council. For purposes of transparency with the Commission, the Settling Parties agree to submit the price estimate document filed as a confidential exhibit prior to a hearing on the Settlement Agreement. The Settling Parties also agree to provide a copy of the price and scoping document when filing this Settlement Agreement.

The Settling Parties further stipulate and agree that subsequent to the Council submissions required in the preceding paragraph, the Commission shall hold an evidentiary hearing to consider the submissions and to make any necessary determinations under RSA 378:51, III. The Settling Parties agree that moving forward on Platform design and development as described in this Settlement Agreement is in the public interest unless the Commission

determines otherwise. Finally, the Settling Parties stipulate and agree that any determination under RSA 378:51, III to defer Platform implementation shall not preclude future proposals to develop such a Platform pursuant to RSA 378:51.

#### **F. Cost Recovery**

RSA 378:54 provides that the utilities may “[i]mpose reasonable charges to third parties for access to data via the multi-use, online energy data platform; and [o]therwise recover costs from customers in a timely manner as approved by the commission.” The Settling Parties stipulate and agree that once the Platform Hub is operational the Council shall consider a fee structure for Platform users, as permitted by the RSA 378:54,I to defray Platform construction and operational costs to the NH Utility customers. Accordingly, the Settling Parties stipulate and agree that initial design and RFP development along with all consultant, operating and capital costs shall be recoverable from NH Utility customers only to the extent that such costs are reasonable, prudently incurred and in the public interest, and are not otherwise recovered by Platform users or other funding sources.

The Settling parties agree and stipulate that once a vendor has been selected and platform cost estimates are known, the Council shall file those estimates for the Commission’s determination of (1) whether those costs appear reasonable pursuant to RSA 378:51, III; (2) the mechanism through which utilities may recover platform costs from customers in a timely manner pursuant to RSA 378:54, II; and (3) the venue through which the Commission shall determine whether the Platform was prudently deployed. Commission review of prudently incurred deployment and recovery of costs will occur in one docket for the combined NH

Utilities. Costs associated with the Platform Hub and other shared costs between the NH Utilities shall be allocated by the preceding year's total New Hampshire retail revenue.

### **III. GENERAL PROVISIONS**

The Settling Parties agree that all testimony and supporting documentation may be admitted as full exhibits for purposes of consideration of this Agreement. Assent to admit all direct testimony without challenge does not constitute agreement by the Settling Parties that the content of the written testimony is accurate nor is it indicative of what weight, if any, should be given to the views of any witness. Reflecting the intent of this Agreement, the Settling Parties agree to forego cross-examining witnesses of the Settling Parties regarding their pre-filed testimony and, therefore, the admission into evidence of any witness's testimony or supporting documentation shall not be deemed in any respect to constitute an admission by any party to this Agreement that any allegation or contention in this proceeding is true or false, except that the sworn testimony of any witness shall constitute an admission by such witness.

This Agreement is expressly conditioned upon the Commission's acceptance of all of its provisions without change or condition. All terms are interdependent, and each Settling Party's agreement to each individual term is dependent upon all Settling Parties' agreement with all terms. If such complete acceptance is not granted by the Commission, or if acceptance is conditioned in any way, each of the Settling Parties shall have the opportunity to amend or terminate this Agreement or to seek reconsideration of the Commission's decision or condition. If this Agreement is terminated, it shall be deemed to be withdrawn and shall be null and void and without effect and shall not constitute any part of the record in this proceeding nor be used for any other purpose. The Settling Parties recommend approval of this Agreement before the



Commission. The Settling Parties also agree that they shall not oppose this Agreement at hearing or through pleadings before any regulatory agencies or courts before which this matter is brought, but shall take all such action as is necessary within those venues to secure approval and implementation of the provisions consistent with this Agreement.


The Commission's acceptance of this Agreement does not constitute continuing approval of or precedent regarding any particular issue under this docket, but such acceptance does constitute a determination that this Agreement and all provisions are just and reasonable. All discussions leading to and resulting in this Agreement have been conducted with the understanding that all offers of settlement and discussion relating to these terms are and shall be protected and treated as privileged, and shall be so without prejudice to the position of any party or participant representing any such offer or participating in any such discussion, and are not to be used in any manner in connection with this proceeding, any further proceeding or otherwise.

This Agreement may be executed by facsimile or electronically and in multiple counterparts, each of which shall be deemed to be an original, and all of which, taken together, shall constitute one agreement binding on all Settling Parties.

IN WITNESS WHEREOF, the Settling Parties have caused this Agreement to be duly executed in their respective names by their agents, each being fully authorized to do so on behalf of their principal.

*[Signature Pages Follow]*

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. D/B/A LIBERTY

By:   
Michael Sheehan, Esq.  
Senior Counsel

April 28, 2021

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

By: \_\_\_\_\_  
Jessica Chiavara, Esq.  
Counsel


April 28, 2021

UNITIL ENERGY SYSTEMS, INC.

By: \_\_\_\_\_  
Carleton B. Simpson, Esq.  
Regulatory Counsel

April 28, 2021

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY

By:   
Michael Sheehan, Esq.  
Senior Counsel

April 28, 2021

NORTHERN UTILITIES, INC.

By: \_\_\_\_\_  
Carleton B. Simpson, Esq.  
Regulatory Counsel

April 28, 2021

OFFICE OF THE CONSUMER ADVOCATE

By: \_\_\_\_\_  
Donald M. Kreis, Esq.  
Consumer Advocate

April 28, 2021

STAFF OF THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

By: \_\_\_\_\_  
Brian Buckley, Esq.  
Staff Attorney


April 28, 2021

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. D/B/A LIBERTY

By: \_\_\_\_\_  
Michael Sheehan, Esq.  
Senior Counsel

April 28, 2021

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

By:  \_\_\_\_\_  
Jessica Chiavara, Esq.  
Counsel

April 28, 2021

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Carleton B. Simpson, Esq.  
Regulatory Counsel

April 28, 2021

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Michael Sheehan, Esq.  
Senior Counsel

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NORTHERN UTILITIES, INC.

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Brian Buckley, Esq.  
Staff Attorney

April 28, 2021

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By: \_\_\_\_\_

April 28, 2021

Michael Sheehan, Esq.  
Senior Counsel

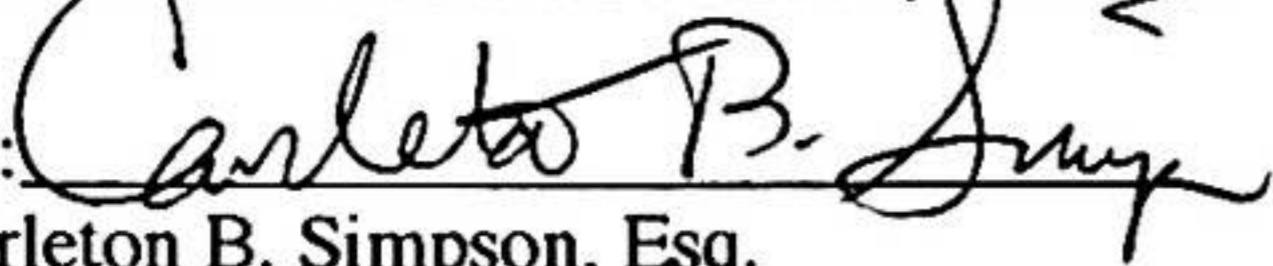
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

By: \_\_\_\_\_

April 28, 2021

Jessica Chiavara, Esq.  
Counsel

UNITIL ENERGY SYSTEMS, INC.

By:  \_\_\_\_\_

April 28, 2021

Carleton B. Simpson, Esq.  
Regulatory Counsel

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY

By: \_\_\_\_\_

April 28, 2021

Michael Sheehan, Esq.  
Senior Counsel

NORTHERN UTILITIES, INC.

By:  \_\_\_\_\_

April 28, 2021

Carleton B. Simpson, Esq.  
Regulatory Counsel

OFFICE OF THE CONSUMER ADVOCATE

By: \_\_\_\_\_

April 28, 2021

Donald M. Kreis, Esq.  
Consumer Advocate

STAFF OF THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

By: \_\_\_\_\_

April 28, 2021

Brian Buckley, Esq.  
Staff Attorney

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. D/B/A LIBERTY

By: \_\_\_\_\_ April 28, 2021  
Michael Sheehan, Esq.  
Senior Counsel

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

By: \_\_\_\_\_ April 28, 2021  
Jessica Chiavara, Esq.  
Counsel

UNITIL ENERGY SYSTEMS, INC.

By: \_\_\_\_\_ April 28, 2021  
Carleton B. Simpson, Esq.  
Regulatory Counsel

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY

By: \_\_\_\_\_ April 28, 2021  
Michael Sheehan, Esq.  
Senior Counsel

NORTHERN UTILITIES, INC.

By: \_\_\_\_\_ April 28, 2021  
Carleton B. Simpson, Esq.  
Regulatory Counsel

OFFICE OF THE CONSUMER ADVOCATE

By:  \_\_\_\_\_ April 28, 2021  
Donald M. Kreis, Esq.  
Consumer Advocate

STAFF OF THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

By: \_\_\_\_\_ April 28, 2021  
Brian Buckley, Esq.  
Staff Attorney

LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. D/B/A LIBERTY

By: \_\_\_\_\_ April 28, 2021  
Michael Sheehan, Esq.  
Senior Counsel

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

By: \_\_\_\_\_ April 28, 2021  
Jessica Chiavara, Esq.  
Counsel

UNITIL ENERGY SYSTEMS, INC.

By: \_\_\_\_\_ April 28, 2021  
Carleton B. Simpson, Esq.  
Regulatory Counsel

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY

By: \_\_\_\_\_ April 28, 2021  
Michael Sheehan, Esq.  
Senior Counsel

NORTHERN UTILITIES, INC.

By: \_\_\_\_\_ April 28, 2021  
Carleton B. Simpson, Esq.  
Regulatory Counsel

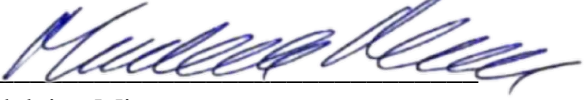
OFFICE OF THE CONSUMER ADVOCATE

By: \_\_\_\_\_ April 28, 2021  
Donald M. Kreis, Esq.  
Consumer Advocate

STAFF OF THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

By: Brian D. Buckley April 28, 2021  
Brian Buckley, Esq.

CLEAN ENERGY OF NEW HAMPSHIRE

By:  April 28, 2021  
Madeleine Mineau  
Executive Director

COMMUNITY CHOICE PARTNERS

By: \_\_\_\_\_ April 28, 2021  
Samuel Golding  
President

MISSION:DATA COALITION

By: \_\_\_\_\_ April 28, 2021  
Michael Murray  
President

CITY OF LEBANON

By: \_\_\_\_\_ April 28, 2021  
Clifton Below  
Assistant Mayor

TOWN OF HANOVER

By: \_\_\_\_\_ April 28, 2021  
April Salas  
Sustainability Director, Town of Hanover

\_\_\_\_\_ April 28, 2021  
Kat McGhee  
Eversource Customer

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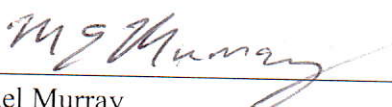
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Appendix A – Platform Components

Appendix B – Logical Data Model

Appendix C – Cyber Security Requirements

Appendix D – RFP Process

Appendix E – Service Levels and SLAs and Issue Resolution

Appendix F - Customer Experience

# Appendix A

## Platform Components

This appendix contains a preliminary design of the Platform developed to assist the utilities in providing rough estimates and to facilitate pricing the Platform components during the next phase of this docket. This appendix contains a design of the Platform that will be used as the basis for determining pricing during the next phase of this docket. The Council may further refine the design if necessary by consensus. For the purpose of a discussion on scope and pricing, the main components of the Platform have been placed into one of two logical buckets:

- **Utility Back-end Integration and Utility specific API**
  - This includes the following high level platform components:
    - Data mapping from legacy backend systems to the Logical Data Model
    - Implementation of the **Green Button Connect My Data** workflow(s)
    - Implementation of NH Utility API layer which includes:
      - All NH Utility specific customer authorization and authentication
      - Individual customer data retrieval and presentment in Green Button format
      - Multi customer data for aggregation purposes
        - Industry standard file formats such as CSV, XML or JSON will also be considered based on implementation cost.
        - Support for community data aggregation with discrete technical and costing analysis for property level aggregation
    - Implementation of customer-authorization capability
- **Platform Hub**
  - The platform hub includes the following high-level components:
    - Central web **portal** for the platform user’s registration and access
    - Implementation of the **API of APIs** which will allow for a single access point allowing authorized platform users to programmatically request multi-utility customer data.
      - These requests to the API of API are then “delegated” to the Utility APIs described in the section above for the retrieval of individual customer or aggregated customer data.
      - The API of APIs is responsible for combining individual utility data sets into a single combined NH data set for delivery to the hub consumer.
    - Centralized customer access point to provide authorization, with individual NH Utilities’ web portals to provide customer authentication
    - The hub will also serve as the central repository (“**Landing Page**”) for hosted content and links to:
      - Documentation
      - Problem reporting
      - Ease of use tools such as stylesheets for rendering Green Button data files to a user-friendly output
      - Terms and conditions
      - Technical support

- Platform status information, and other misc. supporting materials.
- Third party Platform users that wish to be listed provided that there is a disclaimer that the listing does not imply endorsement
- Customer authorization portal

Note: this list is not meant to represent an exhaustive list of functionalities supported by the platform but rather a representation of the high-level functional items for the purposes of developing an initial estimate range. More detailed functional requirements and granular estimates will be necessary

## Scope of Costs

Costs include any of the work necessary for implementation of the “**Platform Hub**”, “**Utility Backend Integration and API**”, as well as ongoing support, licensing and maintenance.

It is important to understand that each utility will have its own unique challenges and constraints when implementing the work described in the “Utility Backend Integration and API” section above. Each utility has different environmental and architectural challenges to deal with.

The types of project activities to be included and considered for estimation are listed below as the “cost components” for the platform.

### High Level Cost Components

- Design and Architecture
- Software Development
- QA Testing and Remediation
- Project Management, Oversight and Coordination
- Licensing and Purchases
- Development of Documentation and Support Materials
- Platform Certification
- Infrastructure Costs
  - Hardware and Storage
  - Networking
  - Cloud and Data Sharing
  - Provisioning and Maintenance of Test and Production Environments
  - Deployment
  - Performance and Load Testing
  - Platform Metrics
- Customer Consent and Authorization
  - Including Tracking, Auditing and Reporting
- Platform User Registration / Certification
- Cybersecurity and Compliance
  - Including periodic vulnerability and penetration review
- Utility Marketing and Communications
- Ongoing Support, services and licensing

As a discrete costing item, the utilities will seek bids on the development of the utility-specific APIs from 3rd parties.

## Scope of Aggregation Functionality

As mentioned previously, in addition to individualized customer data, the platform will also provide the ability for an authorized user to retrieve aggregated data sets containing multiple utility customers.

This core capability is a combined function of both the **Utility Backend Integration and API** as well as the **Platform Hub**.

- The Utility APIs will be responsible for providing to the Platform Hub API a multi-customer data set upon request in a Green Button file format. NH Utilities or Governance Council should seek to obtain certification from the Green Button Alliance before the Council considers other standard formats for data sharing of aggregated customer data.
- The Platform Hub will be responsible for combining the multi-customer data sets provided by the Utility APIs into a single multi-utility output.

### Aggregation Assumptions

- Usage data aggregation granularity will be at the town, state, and/or customer and/or rate class level.
- Aggregated data files will contain *anonymized* usage data only
  - No information that can tie usage back to a specific customer (Account numbers, names, locations)
- The platform will support two levels of aggregation thresholds:
  - A minimum of 100 or more customers per data set without a contractual relationship
  - OR a 4/50 rule wherein there are a minimum of 4 customers and none which account for > 50% of the overall aggregated data.

## **Appendix B**

### **Logical Data Model**

The joint utility testimony discussed the “Logical Data Model”:

*“After each utility has completed all of the work necessary to identify and extract the required data from internal systems, a second challenge unique to each company arises: combining all of the data as the result of these “extraction” efforts into a single, cohesive, data set that can be interpreted and processed by third-parties (the “transform” portion of the ETL [extract, transform, load] model). Without complex standardization and coordination across the utilities, this would be a near impossibility. The introduction of a “Logical Data Model” attempts to solve some of these problems. The model provides a common abstraction with agreed upon semantics for field names and data conventions, allowing the utilities to “speak the same language” with common terms and agreed upon units of measurement”*

Adherence to this logical data model is a cornerstone of the Platform allowing for multi-utility data to be combined by the API and removing ambiguity around utility data differences.

Other elements of the API, including how authentication and authorization is handled, how requests and responses are formed, status codes to be used, etc. will also need to be defined and implemented consistently on the various components of the Platform.

These elements of the Platform standard will be based on the Green Button standard. NH Utilities or Governance Council should seek to obtain certification from the Green Button Alliance before the Council considers other standard formats for data sharing.

The full definition of these elements of the Platform standard will be defined by the Council as needed or adopted from the existing functionality of the Platform Hub provider if that proves most cost-effective and acceptable to the Council.

There are several components of the Logical Data Model and the complete definition of this is still a work in progress, but this work is not critical for the purpose of scoping and estimation.

#### **Logical Data Model Components**

1. List of data fields, corresponding descriptions, and example data
2. Mapping of data fields to the GB standard
3. Definition of allowed values and units of measure
4. Assumptions, pre-conditions and rules governing each data element
5. Definition of key data relationships

The embedded table below forms the basis for the Logical Data Model containing the following:

- An Minimally Viable Product (“MVP”) definition of what utility data fields will be included in the initial version of the platform
- Mapping of those fields to the Green Button Standard
- Definition of allowed values and units of measure (work in progress)



Initially, not all NH Utilities will support all data fields listed in the MVP list but are expected to provide these as the data becomes available and accessible to the Platform. Additionally, the Platform model is designed such that additional data elements can be added in future releases based on governance prioritization and consensus of the Council, platform metrics, and scope and funding approval by the Commission.

# MVP Data Fields for Utility Logical Data Model

MVP Data Fields for Logical Data Model			
Billing Data Fields			
DE19-197 Field	Green Button Location	Enumerated / Allowed Values	Example
Account Number	Retail Customer Schema > CustomerAccount		1089999
Premise			
Customer Name			Bob Smith
Customer Email Address			<a href="mailto:smith@mail.com">smith@mail.com</a>
Customer Phone		Home / Mobile / Business	
Account Address	Retail Customer Schema > ServiceLocation	This should be multiple addresses: Contact and Service	123 Main Street. Salem NH 03079 D1 Res
Customer Rate Code			
Meter Number	Retail Customer Schema > ServiceLocation > Usage Point		234433
Meter Reading Previous		Register Read End KWH or KW at end of cycle "meter reading previous"	345678
Meter Reading Current		Register Read End KWH or KW at end of cycle "meter reading current"	345878
Overall Consumption Last Period	UsageSummary > OverallConsumptionLastPeriod		809
Overall Consumption This Period	UsageSummary > CurrentBillPeriodOverAllConsumption		784
Billing Period	UsageSummary > BillingPeriod > Duration and Start		
Commodity	UsageSummary > Commodity	Gas or Electric	"E"
Bill Amount	UsageSummary > Amount	Current bill total	106.5100
<b>Balance Forward?</b>			
Customer Charge	UsageSummary > CostAdditionalDetailLastPeriod (bill line item collection)		\$17.00
Delivery Charge	UsageSummary > CostAdditionalDetailLastPeriod (bill line item collection)	itemKind: 2 Energy Delivery Fee	0.0233
Stranded Cost Charge	UsageSummary > CostAdditionalDetailLastPeriod (bill line item collection)		0.0432
System Benefit Charge	UsageSummary > CostAdditionalDetailLastPeriod (bill line item collection)		0.00456
Consumption Tax	UsageSummary > CostAdditionalDetailLastPeriod (bill line item collection)	itemKind 5: Tax	0.00005
Energy Service Charge Fixed	UsageSummary > CostAdditionalDetailLastPeriod (bill line item collection)		0.0823
Quality of Reading	UsageSummary > QualityofReading	0 - valid 7 - manually edited 8 - estimated using reference day 9 - estimated using linear interpolation 10 - questionable 11 - derived 12 - projected (forecast) 13 - mixed 14 - raw 15 - normalized for weather 16 - other 17 - validated 18 - verified 19 - revenue-quality	valid
Service Supplier Kind	Retail Customer Schema > Service Supplier > Supplier Kind	Utility, Retailer, Other, LSE, MDMA, MSP	retailer
Service Supplier ID	Retail Customer Schema > Service Supplier > SupplierID		
Service Supplier Effective Date	Retail Customer Schema > Service Supplier > EffectiveDate		
Service Supplier Name	Retail Customer Schema > Service Supplier > Name		
Peak Demand (for current bill period)	UsageSummary > PeakDemand		
Interval Data Fields			
Interval Reading Start Date and Time	MeterReading > IntervalBlock > IntervalReading > TimePeriod		
Interval Reading Value	MeterReading > IntervalBlock > IntervalReading > Value		
Interval Duration	MeterReading > IntervalBlock > IntervalReading > TimePeriod > Duration		
Interval Reading Quality	MeterReading > IntervalBlock > IntervalReading > Reading Quality	Valid, Manually Edited, Estimated Using Reference Day, Estimated Using Linear Interpolation, Questionable, Derived, Projected, Mixed, Raw, Normalized For Weather, Other, Validated, Verified, Revenue-Quality	
TOU	MeterReading > IntervalBlock > IntervalReading>TOU	TOU bucket for interval period	

# Appendix C

## Cyber Security Requirements

### 1. Platform User Eligibility Requirements

- a. Platform users shall provide and maintain current contact information and Federal Tax ID to the Platform as part of a centralized onboarding process.
- b. Platform users shall register as one of 4 risk-based groups depending on the expected data that will be downloaded from the Platform. The risk-based groups are:
  - i. User of anonymized and aggregated data or municipal-level energy usage data. No customer permission required. Anonymized and aggregated data assumes municipal threshold level of 100 or more customers, or for pursuit of energy benchmarking with a contractual relationship at 4/50 (4 customers and no one customer is more than 50% of the data).
  - ii. User with customer permissioned access to fewer than 100 customers' data at any time.
  - iii. User with customer permissioned access to 100-1,000 customers' data at any time.
  - iv. User with access to greater than 1,000 customer records at any time.
- c. As part of the registration process, Platform users registering with the intent to receive non-anonymized customer data must complete a cybersecurity control questionnaire to ensure they have reasonable controls to protect customer data. Refer to Appendix C-1 for a description of the control questions by risk category (the "Control Questionnaire"). Refer to Confidential Appendix C-2 for the Security Control Scoring Tool.
- d. The utility or delegated authority selected by the Council ("Centralized Cyber Authority") shall establish a centralized and standardized review process for the registration and the cyber security Control Questionnaire, based on the nature of the data being requested.
- e. The Centralized Cyber Authority shall have 30 days to complete the registration and Control Questionnaire review and to communicate the results with all participating utilities. If responses to the cyber security control questionnaire are not adequately supported, or the responses themselves are insufficient, the Selected Utility or a Delegated Authority may deny access to the Platform. The review may be informed by additional information that may be presented by the other participating utilities prior to the completion of the 30 day review.
- f. The final results shall be shared with the Platform user by the 35<sup>th</sup> day after registration. The Centralized Cyber Authority shall present the results of a negative decision and provide the Platform user an opportunity to address the concerns. The Platform user may also appeal to the Council.
- g. The Platform user shall be allowed to access the Platform once sufficient support is provided that all proper controls are in place.

- h. Platform user is responsible to have the technical ability to interact with APIs. However, Platform users that select Group i. of section b. above, who only require the ability to pull reports, shall still be eligible to establish their user accounts in the Platform.

## **2. Privacy Standards:**

- a. Platform users must be a signatory to DataGuard (for information purposes only the current version is dated Jan 8, 2015 and can be found here: [https://www.dataguardprivacyprogram.org/downloads/DataGuard\\_VCC\\_Concepts\\_and\\_Principles\\_2015\\_01\\_08\\_FINAL.pdf](https://www.dataguardprivacyprogram.org/downloads/DataGuard_VCC_Concepts_and_Principles_2015_01_08_FINAL.pdf)).
- b. Platform users shall include a reference to DataGuard in their privacy policy or other form of publicly available acknowledgment. If Dataguard is abolished, then the last published version shall be deemed binding until otherwise decided by the Council.
  - i. “Account Data” in DataGuard shall be deemed to include all data provided by the Platform, including, but not limited to, account and service details, billing history, program eligibility information, etc.
  - ii. Platform users shall keep customer data confidential and may not disclose it to any unauthorized person or entity.
  - iii. Platform user’s obligations hereunder are subject to (a) the wishes of a customer as may be described in an agreement between the customer and Platform user that might allow for disclosure to other entities, as described in DataGuard Section 2.0; and (b) the Platform user’s need to share customer data with its agents or contractors (including, but not limited to, cloud hosting providers) as is reasonably necessary to deliver and fulfill the services according to the customer-authorized purpose. A Platform user shall contract with all such third parties such that the Platform user can attest that the third party will “maintain reasonable security procedures and practices appropriate to the nature of the information, to protect the personal information from unauthorized access, use, destruction, modification, or disclosure, and to prohibit the use of the data for a secondary commercial purpose not related to the primary purpose of the contract without the express consent of the customer.” RSA 363:38V(b).
  - iv. Platform users shall agree that aggregated or anonymized data is to be used in the aggregated or anonymized data format. Platform users shall agree that they will not attempt to utilize artificial intelligence or other activities with the data or in combination with other data that could result in reversed engineering that results in the identification or likely identification of individual customers.

## **3. Platform User Annual Attestation**

- a. Platform users shall provide annual attestations that the submitted controls substantially still exist. Platform users receiving non-aggregated customer data shall be required to

implement the Cybersecurity Risk Management Program provisions of DataGuard Section 4(a)-(e).

- b. Utilities shall maintain functionality of the Platform for automatic notification to the Platform users of the annual attestation requirement.
- c. Platform users shall have 60 days to complete the attestation. Failure shall result in a suspension of the ability to obtain customer information until the attestation is completed, based on non-compliance with the terms and conditions for accessing the Data Platform.
- d. If updates to the Security Control Questions results in a determination of inadequate controls, the Centralized Cyber Authority shall notify the Platform user within 14 days of the attestation submission to request clarification of the responses.
  - i. Platform users who disagree with the determination may appeal to the Council. Non-consensus decisions by the Council in these matters may be appealed to the Commission.
- e. Customers shall be provided annually a report of who has been approved to access their data and informed how they can make adjustments if desired.

#### **4. Activities Associated with a Platform User Cyber Event**

- a. Platform users receiving customer information shall notify the Centralized Cyber Authority (this may occur through the Platform) upon discovery of any cyber event as defined in RSA 359-C:19 V. that has created a risk of customer data being compromised. All reports by the Platform user of a cyber event shall be held confidential, but does not preclude Platform users from notifying customers of a cyber event according to the law.
- b. Awareness by the NH Utilities or the Platform operator of an unreported cyber event shall result in suspension of access and communication with the Platform user.
- c. Platform user reporting a breach shall have access to additional customer information suspended until the Centralized Cyber Authority is notified of sufficient remediation of the event and any necessary corrective actions are implemented. The Centralized Cyber Authority will respond to the notification of remediation as soon as possible, but in no case longer than 48 hours, and restore access in a timely manner. Upon agreement of the remediation actions, access to the Data Platform shall be restored.
- d. Platform users who disagree with the access suspension may appeal to the Council. Non-consensus decisions by the Council in these matters may be appealed to the Commission.

#### **5. Platform User Termination**

Prior to implementation, the Council shall determine the processes regarding Platform user suspension and termination, consistent with the terms herein.

**6. Customer Consent to Access Individual Data**

- a. A NH Utility customer shall affirmatively opt-in to share their individual data via the Platform by completing a web-based authorization customer consent process similar to the sample provided in Appendix F.
- b. Each such customer consent shall have a defined scope that only authorizes access to those Platform users designated by the customer. To protect customer data appropriately, there shall be no blanket authorizations.

In order to ensure that customers are informed, the Platform shall notify each customer annually by email (or by another contact method if email address is unavailable) of an option to revoke authorization, if such authorization was granted on an ongoing basis.

- c. If the customer takes no action, ongoing authorizations shall automatically extend for a maximum of up to five years with an annual notice providing an option to revoke such authorization. The authorization will otherwise remain in effect until five years have elapsed from the date of the original authorization, or until the customer closes his or her utility account or revokes the authorization, whichever is sooner.

## Appendix C-1 Cyber Security Risk Control Questionnaire

	Risk Category	Required Security Responses
Low or zero risk Data Sets	User of anonymized and aggregated data or municipal-level energy usage data.	Registration Agreement, no Customer approval required.
Moderate Risk Data Sets	User with customer permissioned access to fewer than 100 customers' data at any time.	<ul style="list-style-type: none"> <li>• Do you use passwords to access your computers?</li> <li>• Do you require anti-malware protection technologies on your computing systems (PCs, Servers, etc)? Examples of anti-malware protection technologies are Norton AV, host-based intrusion prevention (e.g. McAfee IPS), or advanced endpoint protection technology (e.g. Crowdstrike).</li> <li>• Do you employ hard disk encryption technologies (e.g. whole disk, file level, etc) on your desktops and laptops and systems that may store data obtained from the Data Portal? For example, Macintosh computers default to encryption, Windows systems offer encryption at setup.</li> <li>• Do you use a password to access your WIFI network?</li> </ul>
	User with Customer permissioned access to 100-1,000 customers' data at any time.	<ul style="list-style-type: none"> <li>• Items in this section, plus all items in previous section are required.</li> <li>• Have you implemented user authentication policies? If so, do they implement password enforcement policies, such as minimum length, complexity, expiration, and reuse restrictions? Please describe.</li> <li>• Do you utilize Two-Factor Authentication controls for individuals accessing your systems from remote locations? Please describe.</li> <li>• Do you have a firewall as part of your WIFI router or a device that ensures your computers are not directly connected to the internet? (Your internet service provider or wireless router may include a firewall. Note this only applies to this section)</li> </ul>
High Risk Data Sets	User with access to greater than 1,000 customer records at any time.	<ul style="list-style-type: none"> <li>• Items in this section, plus all items in previous section are required.</li> </ul>

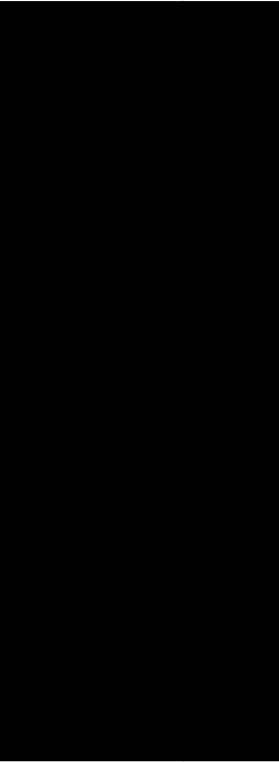
		<ul style="list-style-type: none"> <li>• Do you have a written Information Security policy, sponsored and approved by senior management, published and available to all employees? If yes, please describe the major components of the policy.</li> <li>• Does your information security policy include a written employee "acceptable use" policy that includes handling of customer data and use of company systems?</li> <li>• Do you have written policies/procedures/guidelines for maintaining and monitoring the security of customer data?</li> <li>• Do you follow documented processes for maintaining software currency and patch management to ensure that security-related patches (e.g. desktops, laptops, server OS, Database, Application, etc) are addressed within a reasonable timeframe? Please describe.</li> <li>• If you have a data processing facility, do you employ physical security controls (e.g. card-controlled entry doors, security guards, etc.) to protect your data processing facilities? Please describe or provide program documentation (If a third-party hosting service is used, please describe their controls or attach a SOC II audit report or other document summarizing their physical security controls).</li> <li>• Do you conduct background checks (e.g. credit, criminal, drug, employment checks, etc) for all employees or at a minimum, those that will directly or indirectly have access to downloaded data? Please describe.</li> <li>• Do you have an Information Security Awareness program developed and implemented for all employees?</li> <li>• Do you have a documented Incident Response plan that includes monitoring for security events, and handling security incidents that addresses incident management responsibilities and evidence preservation? Do you have a process for backing up company and customer data and</li> </ul>
--	--	--



		<p>are there appropriate access controls to the backed-up data.? Please describe.</p> <ul style="list-style-type: none"><li>• Do you change default system account names and passwords across all systems? Please describe.</li><li>• Do you perform regular data backups? If yes, how do you protect the backup media?</li><li>• Do you utilize perimeter security technologies such as Firewalls and email scanning systems? Please describe.</li></ul>
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## Appendix C-2 Security Control Scoring Tool

New Hampshire Data Platform			
Security Control Scoring Tool			
Response must score higher than 37 To Be Accepted			
Question No	Question	Answer	Score
1	Do you require anti-malware protection technologies on your computing systems (PCs, Servers, etc)? Examples of anti-malware protection technologies are: Norton AV, host-based intrusion prevention (e.g. McAfee IPS), or advanced endpoint protection technology (e.g. CrowdStrike).		0
2	Do you employ hard disk encryption technologies (e.g. whole disk, file level, etc) on your desktops and laptops and systems that may store data obtained from the Data Portal? For example, Macintosh computers default to encryption, Windows systems offer encryption at setup.		0
3	Do you utilize Two-Factor Authentication controls for individuals accessing your systems from remote locations? Please describe.		0
4	Do you have a written Information Security policy, sponsored and approved by senior management, published and available to all employees? If yes, please describe the major components of the policy.		0
5	Does your information security policy include a written employee "Acceptable Use" policy that includes handling of customer data and use of company systems?		0
6	Do you have written policies/procedures/guidelines for maintaining and monitoring the security of customer data?		0
7	Do you follow documented processes for maintaining software currency and patch management to ensure that security-related patches (e.g. desktops, laptops, server OS, Database, Application, etc) are addressed within a reasonable timeframe? Please describe.		0
8	If you have a data processing facility, do you employ physical security controls (e.g. card-controlled entry doors, security guards, etc.) to protect your data processing facilities? Please describe or provide program documentation (If a third-party hosting service is used, please describe their controls).		0
9	Do you conduct background checks (e.g. credit, criminal, drug, employment checks, etc) for all employees? Please describe.		0
10	Do you have an Information Security Awareness program developed and implemented for all employees?		0
11	Do you have a documented Incident Response plan that includes monitoring for security events, and handling security incidents that addresses incident management responsibilities and evidence preservation? Do you have a process for backing up company and customer data and are these appropriate access controls to the backed up data.? Please describe.		0
12	Do you change default system account names and passwords across all systems? Please describe.		0
13	Do you perform regular data backups? If yes, how do you protect the backup media?		0
14	Do you utilize perimeter security technologies such as Firewalls and email scanning systems? Please describe.		0
		Result	0



## Appendix D

### Framework For RFI/RFP/RFQ Process

#### RFI/RFP/RFQ Process

A three phased “Request for...” process as described in the table below is proposed. This staged approach allows the Council to incrementally obtain the information needed to move towards pricing and functional specificity of the Platform.

	<b>RFI [Request for Information]</b>	<b>RFP [Request for Proposal]</b>	<b>RFQ [Request for Quotation]</b>
<b>Goal:</b>	Gather vendor info and assess market capabilities	To thoroughly define the best project	To get the best possible pricing for the project
<b>Status of Solution:</b>	Not clearly defined	Details still to be worked out, but high-level overview understood	Details are clearly understood
<b>Deliverable:</b>	Vendor information and clarity on market capabilities	S.O.W for project	Pricing details

The RFI/RFP/RFQ process will be performed for the Platform Hub functionality as described in Appendix A. Unitil has volunteered to act as the centralized procurement body for all phases of this process.

The NH utilities expect to utilize internal and contracted labor to support back end data integration work and plan to bid the development of the utility API and any other costs, including back-end data integration work, *where costs exceed \$100,000, except that NH Utilities may identify areas that must remain in house.*

#### Guiding Principles for Procurement Activities

Responses will be reviewed within the following framework of guiding principles:

- **Interoperability:** the ability for the platform hub to work with the utility APIs and support all necessary components of the Green Button specification.
- **Security:** the ability to provide adequate privacy and data security

- **Adaptability:** as the scope grows, being able to adapt to any changes that need to be made to better serve our stakeholders
- **Ease of Use:** a platform with a simplified user interface that is easy to use, even by those with a minimal technology background

### **RFI/RFP Submitter Requirements**

The following items will be included in any RFI/RFP response reviewed by the committee.

- **Company Overview**
  - Company history, a brief overview of your platform, and other utilities or related entities or collaboratives (and their locations) that have used the platform.
- **Platform Capabilities**
  - Description of the product(s) that meets one or more of our capabilities and a detailed description of how it meets each of the capabilities.
- **Privacy**
  - Description of how the product(s) ensures compliance with all applicable standards as well as other state & federal privacy laws.
- **Interoperability**
  - Description of how the product(s) can interoperate with our APIs.
- **Training and End-User Engagement**
  - Description of the type, breadth and duration of training/consultation that the company provides to end-users of its product(s).
- **Extensibility**
  - Description of product roadmap and any mechanisms through which end-user feedback is incorporated into product revisions or updates.
- **Demos**
  - To the extent possible, include screenshots, links to online demos and/or examples of how clients/customers have used the product(s).

### **Response Property and Confidentiality**

All materials submitted in response to this RFI become the property of the NH Data Platform Governance Council. The Council has the right to use any of the ideas presented in any response to the RFI.

Any information contained in the response that is proprietary or confidential must be clearly designated as such.

## Appendix E

### Service Levels and Service Level Agreements (SLA)

The decentralized nature of the Platform architecture necessitates two service levels and may necessitate multiple SLA agreements, each with its own metrics and accountability structure. This Appendix represents the initial levels that may be modified by the Council.

#### 1. Platform Hub Service Level Agreement

- a. This covers the availability of the centralized Platform Hub APIs, the presentation of static website contents, and all required authentication and authorization related services to the “outside” world.
- b. The terms of this SLA must be included in the RF[I/P/Q] process to allow for vendor response.

#### 2. Utility API Service Levels

- a. This covers the availability of each of the exposed Utility API endpoints and the data being contributed by the Back-end Integration that provide the ability for the Platform Hub to connect to and retrieve data from these Utility API endpoints.
- b. Such service levels will be incorporated into SLAs with utility vendors as appropriate.

The Settling Parties agree until otherwise modified by the Council to the following service level targets. Levels will be reviewed and defined further in the design phase of the project.

	<b>Platform Hub Core Services</b>	<b>Utility API Core Services</b>	<b>Platform</b>
<b>Monthly Availability</b>	99.9%	99.50%	99.50%

**Platform down time** is defined as an unscheduled period of time during with services provided by the Platform Hub or Utility APIs are interrupted and not usable, except that down time does not include interruptions as a result of Force Majeure events, customer breach of terms of service or acts or omissions of a customer.

**Monthly availability** is the time for which the Platform Hub and Utility API services are available for use, expressed as a percentage of the total time in the relevant calendar month.

#### SLA Reporting

If requested, the Platform Hub vendor or the NH Utility in question shall provide an SLA report to the Council for review on a monthly basis. The SLA report will contain the following components:

- Unique authorization attempts for each stage of the customer consent process, and corresponding conversion rates
- Unique Requests Received by the Platform
- Unique Requests Handled Successfully by the Platform

- Service Level / Uptime
- Aging Report for Open Support Issues

**Finality of Decisions**

Any and all SLA enforcement activities and disputes shall follow the issue response and resolution times in this Appendix.

**Best Available Data**

Subject to the 99.5 percent availability requirement, the NH Utilities shall at all times operate the Platform under a “best available data” warranty. “Best available data” means that the data provided shall be (1) applicable to the customer’s account who granted the authorization; (2) correct and accurate to the best of the NH Utilities’ knowledge at that time; and (3) transmitted to Platform users in a timely manner after the NH Utilities are made aware of changes to the applicable customers’ billing, usage or account information. In addition, the NH Utilities shall make use of the “Reading Quality” flags in the Green Button Connect My Data Standard as energy usage is processed by the NH Utilities’ preexisting information technology systems.

**Issue Resolution**

The following table of issue resolutions establishes the initial expectation of the Platform and may be modified by the Council.

<b>Severity Classification</b>	<b>Acknowledgment time</b>	<b>Updates</b>	<b>Resolution Threshold for Reporting to Governance Council</b>
<u>Level 1.</u> Critical function is not available or operating in a materially degraded manner	1 business day	Every 1 business day	3 business days
<u>Level 2.</u> Critical function is not available or operating in a materially degraded manner, but a workaround exists	2 business day	Every 2 business day	5 business days
<u>Level 3.</u> Non-critical function is not available or operating in a materially degraded manner	3 business days	Once per week	10 business days

“Acknowledgment” means the utility communicates to the Platform User that the issue is understood by the utility and the utility has commenced remediation efforts.

“Business day” means Monday through Friday excluding utility-recognized holidays.

“Critical function” includes, but is not limited to, customers completing authorizations without errors and delivery of the correct data in a timely manner without errors.

“Updates” means email or telephone communication with affected Platform users.

# Appendix F

## Customer Experience

### Customer Consent and Authorization

The Green Button Connect standard requires the use of an OAuth 2.0 workflow<sup>1</sup> to enable the customer and platform user to electronically negotiate the permissions and authorizations necessary to perform secure data sharing.

Every attempt will be made to simplify the customer experience for consent and authorization of data sharing with as few “clicks” or “data entry screens” as possible

The NH Utilities shall operate the Platform at all times such that the customer-facing online experience meets the following minimum criteria: (1) granting of authorizations shall be completed in the fewest reasonable number of actions or steps of the customer; (2) authentication of the customer’s identity shall be no more onerous than the NH Utilities’ then-current practices on their web portals; (3) granting an authorization shall be completed on a single web page or “screen” similar to the example provided below; and (4) the on-line presence shall be optimized for different screen sizes (e.g., desktop, tablet and mobile).

### Sample User Authorization Experience

Green Button Connect OAuth 2.0 Authorization Form - Wireframe

<p>"Who" (what third party is requesting authorization)</p>	{	<p><b>Acme Energy Auditors</b> is requesting access to your data:</p>
<p>"What" (scope of what data fields to be shared, how far back (historical), how far forward (ongoing), and for which accounts/services) (pre-fillable by third party, can be modified by customer)</p>	{	<p>Your account information, utility bills, and smart meter intervals.</p> <p>For 2 years historical data and ongoing for up to 5 years.</p> <p>For all your utility services (e.g. meters) connected to your online profile.</p>
<p>"Why" (how the data is authorized to be used after consent is given) (pre-written by third party, customizable per data request)</p>	{	<p><b>Scope of use:</b></p> <p>We will use your data to perform an energy audit on your facilities and generate a report for you to review. Read more in our <a href="#">terms of service</a>. <i>(written by Acme Energy Auditors)</i></p>
<p>"Yes/No" (one-click consent/decline)</p>	{	<p style="text-align: center;"><input type="button" value="Authorize Acme Energy Auditors"/> <input type="button" value="Decline"/></p> <p style="font-size: 0.8em; margin-top: 5px;"><small>When you authorize, ABC Utility Co. will allow the above party to automatically download the data you authorized. You will get an emailed receipt, and you may revoke your authorization at any time through a link in your emailed receipt or by going to <a href="#">ABCUtilityCo.com/authorizations</a>.</small></p>

<sup>1</sup> OAuth is an open standard for access delegation, commonly used as a way for Internet users to grant websites or applications access to their information on other websites but without giving them the passwords.