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PUBLIC UTILITIES COMMISSION
21 S. Fruit St., Suite 10
Concord, N.H. 03301-2429

September 5, 2019

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, NH 03301

REQUESTED ACTION

Pursuant to RSA 365:37, authorize the New Hampshire Public Utilities Commission (Commission) to enter into a contract with Navigant Consulting, Inc. (Navigant), in an amount not to exceed \$400,000 (Vendor #175497), to conduct the Locational Value of Distributed Generation (LVDG) study required by Commission orders issued in Docket DE 16-576, Development of New Alternative Net Metering Tariffs and/or Other Regulatory Mechanisms and Tariffs for Customer-Generators. The consulting services contract will be in effect from the date of Governor and Council approval through August 31, 2020. Funding is 100% Utility Assessment.

Funds will be available, pursuant to RSA 365:37, II, in account 02-81-81-810010-52160000-046 500464

FY 2020	Total
\$400,000	\$400,000

EXPLANATION

The Commission respectfully requests authority to enter into a contract in an amount not to exceed \$400,000 with Navigant for the performance of the LVDG study required by Commission orders issued in Docket DE 16-576, Development of New Alternative Net Metering Tariffs and/or Other Regulatory Mechanisms and Tariffs for Customer-Generators. The results of the LVDG study are a key component of the overall Value of Distributed Energy Resource Study, to be performed for that same docket, in order to develop a comprehensive factual record that will inform future net metering tariff modifications or alternative compensation mechanisms. The Commission expects that utility data and planning information collected and analyzed in connection with performance of the LVDG study will also be useful in other relevant contexts, such as the development of projects or initiatives in connection with the electric grid modernization investigation, Docket IR 15-296.

The Commission issued a Request for Proposals (RFP) on April 4, 2019, seeking proposals from qualified consultants to perform the LVDG study. Notice of the RFP was published in the *Union Leader* for three days and

G&C _____
Initials _____
Date _____

was posted on the Commission's website. The Commission received five responses to the RFP. An evaluation team consisting of the Commission's Legal Division Director, an Electric Division Analyst, and a Sustainable Energy Division Analyst, reviewed the five RFP responses and conducted extensive interviews with three of the RFP respondents.

The five proposals were scored using the selection criteria identified in the RFP, weighted as follows: qualifications, technical expertise, certifications, knowledge and practical experience that the organization or individual possesses, including that of the staff and any subcontractors assigned to the engagement, providing services directly relevant to the specified scope of services, including utility distribution system design and planning, locational value analysis, net energy metering of solar and hydroelectric facilities, renewable energy systems development and operation, and non-wires alternative evaluation (max. 35 points); general experience and qualifications in providing similar services in New Hampshire as well as other states and to other utility commissions or regulatory agencies, including similar current or prior engagements and the positions publicly advocated in connection with such engagements (max. 25 points); cost of consulting services and expenses, including the competitiveness of the proposed fees and/or hourly rates and any proposed discounts or other benefits (max. 20 points); ability to work effectively in New Hampshire, including accessibility and proximity to, and familiarity with, the state (max. 10 points); and overall responsiveness to the requirements of the RFP, including completeness, clarity, and quality of proposal, including proposed allocation of resources and time to critical tasks and schedule (max. 10 points).

After a careful review of the proposals and interviews, the Commission's evaluation team determined that Navigant scored highest overall and should be engaged to perform the LVDG study. Navigant's proposal received 89 points in the scoring and the next highest scoring proposals received 84 points and 82 points, respectively. Although Navigant's was not the lowest-cost of the five proposals, neither was it the highest-cost, and it fell within a similar range as the other two high-scoring proposals. The Commission concluded that Navigant's strong qualifications and experience make it the best choice to perform the required consulting services. A table listing the five RFP proposals and related total scores is attached to this letter as Appendix A.

The contract amount will not affect the General Fund. The three regulated electric utilities, Public Service Company of New Hampshire, d/b/a Eversource Energy, Liberty Utilities (Granite State Electric) Corp., d/b/a Liberty Utilities, and Unitil Energy Systems, Inc., will be assessed pursuant to RSA 365:37, II, which permits the Commission to obtain experts and charge the costs to the regulated electric utilities involved in a proceeding.

Your consideration of our request is appreciated.

Respectfully submitted,



Kathryn M. Bailey
Commissioner

Attachment:
Agreement with Exhibits

APPENDIX A

RFP PROPOSALS AND TOTAL SCORES

RFP Proposal	Total Score
Daymark Energy Advisors	67
Demand Side Analytics, Siemens Corporation, and Strategen Consulting	82
Navigant Consulting, Inc.	89
Nexant	84
Synapse Energy Economics, Inc.	70

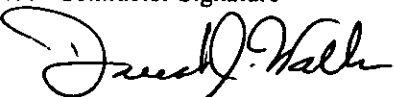
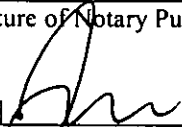
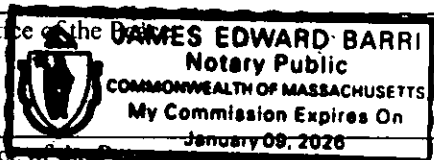
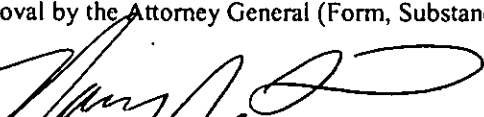
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name Public Utilities Commission		1.2 State Agency Address 21 South Fruit Street, Suite 10, Concord NH 03301	
1.3 Contractor Name Navigant Consulting, Inc.		1.4 Contractor Address 77 South Bedford Street, Suite 400, Burlington, MA 01803	
1.5 Contractor Phone Number (781) 270-8300	1.6 Account Number 02-81-81-810010-52160000-046 500464	1.7 Completion Date August 31, 2020	1.8 Price Limitation \$400,000.00
1.9 Contracting Officer for State Agency Karen Cramton, Sustainable Energy Division Director		1.10 State Agency Telephone Number (603) 271-2431	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory DAVID J. WALL, Managing Director	
1.13 Acknowledgment: State of <u>Massachusetts</u> County of <u>Middlesex</u> On <u>Aug. 28th 2019</u> , before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace 			
1.13.2 Name and Title of Notary or Justice of the Peace <u>James Barri - Financial Representative (Fidelity)</u>			
1.14 State Agency Signature <u>Kathryn M Bailey</u> Date: <u>9/5/19</u>		1.15 Name and Title of State Agency Signatory <u>NHPUC Commissioner</u>	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By:  On: <u>9/6/2019</u>			
1.18 Approval by the Governor and Executive Council (if applicable) By: _____ On: _____			

2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.18, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.14 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.
5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. This may include the requirement to utilize auxiliary aids and services to ensure that persons with communication disabilities, including vision, hearing and speech, can communicate with, receive information from, and convey information to the Contractor. In addition, the Contractor shall comply with all applicable copyright laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.


7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this

Contractor Initials

Date


5/28/19

Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. **TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. **ASSIGNMENT/DELEGATION/SUBCONTRACTS.** The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice and consent of the State. None of the Services shall be subcontracted by the Contractor without the prior written notice and consent of the State.

13. **INDEMNIFICATION.** The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than thirty (30) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than thirty (30) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A (*"Workers' Compensation"*).

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no

such approval is required under the circumstances pursuant to State law, rule or policy.

19. CONSTRUCTION OF AGREEMENT AND TERMS.

This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. SPECIAL PROVISIONS. Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

Contractor Initials 
Date 5/28/19

EXHIBIT A

SCOPE OF SERVICES

Navigant Consulting, Inc. ("Contractor") shall perform the Locational Value of Distributed Generation ("LVDG") study for the Commission, as required in Docket DE 16-576, Development of New Alternative Net Metering Tariffs and/or Other Regulatory Mechanisms and Tariffs for Customer-Generators, pursuant to the scope of work specified in Request for Proposals ("RFP") #2019-003, Locational Value of Distributed Generation Study Consultant, and, in particular, Appendix A to that RFP, which appendix is attached to this exhibit and is incorporated herein by this reference.

The scope of services shall include the following steps in the LVDG study methodology:

- Identifying Locations for Detailed Analysis;
- Determining Avoided or Deferred Distribution Investment Costs; and
- Assigning Values Using Load Profile and Mapping to Generation Profiles.

The scope of services shall include the work associated with Study Adder 1, the forward-looking 6 to 10-year timeframe analysis, in addition to the baseline 10-year timeframe including the last five years of historic load and investment data, all as more specifically described in RFP #2019-003. The scope of services shall not include the work associated with Study Adder 2, the development of a flexible, accessible valuation model, as more specifically described in RFP #2019-003.

This exhibit is intended as a summary overview of the scope of services described in Contractor's Proposal for Locational Value of Distributed Generation Study Consultant, submitted on May 14, 2019 in response to Commission RFP #2019-003 ("Proposal"), and is not intended to limit the scope of services as set forth in RFP #2019-003 and the Proposal.

I. Project Schedule

The Contractor shall commence work beginning on the date of approval of this Contract by the Governor and Executive Council. The Contractor shall schedule a kick-off meeting with Commission Staff during September 2019. The purpose of the meeting shall be to review and further refine the study scope, tasks, and project approach requirements; to develop a detailed project schedule, including key milestones and deliverables, as applicable; to plan for stakeholder engagement and communication; and to establish project management and communication protocols to ensure that the information requirements of Commission Staff and the Contractor are satisfied.

Status calls or meetings shall be conducted by Contractor's project team with Commission Staff on a periodic basis to discuss project status, study progress, action items, and budget and billing status.

It shall be the Contractor's responsibility to perform all work necessary to complete the specified scope of services within the not-to-exceed price limitation of this Contract and to budget its employees' time accordingly.

Contractor Initials 

Date 8/25/19

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II. Project Management

The Contractor's project manager and team members will be subject to direction by Commission Staff.

The Contractor shall provide monthly progress reports and invoices to the Commission. For any activities not addressed in the project schedule or requiring modification as the work progresses, the Contractor shall work with Commission Staff to develop a mutually-agreeable schedule. Any activities added to the project schedule shall be as contemplated by the RFP and performed subject to the applicable contract price limitation.

III. Additional Requirements

The Contractor shall maintain confidential all non-public information to which it has access until such time as it is instructed otherwise by Commission Staff.

In the process of preparing any and all deliverables, Contractor shall work closely with Commission Staff in order to facilitate effective knowledge transfer on each issue. At the conclusion of the performance of services hereunder, the Contractor shall make available to Commission Staff summaries of significant work papers and source documents as requested.

Contractor Initials

Date




8/28/19

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APPENDIX A

**LOCATIONAL VALUE OF DISTRIBUTED GENERATION
STUDY SCOPE AND TIMELINE**

Contractor Initials: 

Date 8/28/19

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New Hampshire Locational Value of Distributed Generation Study Scope

This document describes the study parameters and methodology for the distribution-level Locational Value of Distributed Generation (LVDG) study as approved with modifications specified in Order No. 26,221 issued on February 20, 2019 in Docket DE 16-576.

Study Objectives

Pursuant to Commission Order No. 26,124, issued in Docket DE 16-576, Development of New Alternative Net Metering Tariff and/or Other Regulatory Mechanisms and Tariffs for Customer-Generators, this study will focus on the locational value of distributed generation (DG) to the utility distribution system through analysis of relevant data.

The Order directs the working group to evaluate alternative study designs and methodologies to address the potential locational value of DG on the utility distribution system. It states that such locational value may result from capital investment avoidance or deferral, and operating expense reduction or deferral, such as through equipment life extension or lower maintenance and labor costs.

This analysis will inform the Value of Distributed Energy Resources (VDER) study, as well as the Commission's evaluation of future net energy metering (NEM) tariff development. The study results are not intended to pre-determine future NEM tariff design or applicable rates, but rather to inform further NEM tariff development proceedings before the Commission. In addition, determining locations and costs of avoided or deferred capacity investments may be relevant in a number of other contexts before the Commission, such as grid modernization, future utility rate cases, and future Least Cost Integrated Resource Plans.

Study Parameters

Relation to Value of Distributed Energy Resources (VDER) Study

Due to the significant differences in the type and level of analysis required for a distribution-level LVDG, the LVDG study will be conducted as a separate analysis from the VDER study. Findings from the LVDG study will be used in conjunction with the VDER study to inform future NEM tariff development and DG compensation proceedings.

Technologies Considered Within Study Scope

Because the study will be performed within the context of the NEM docket, study analysis will focus on DG that is eligible for NEM and is interconnected to a New Hampshire regulated distribution

Contractor Initials 

Date 8/20/19

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New Hampshire Locational Value of Distributed Generation Study Scope

utility (i.e., Eversource, Unitil, and Liberty Utilities), including solar, hydroelectric, and solar paired with energy storage. Per Commission Order 26,221, the study will assume future solar facilities will use “smart inverters” but will not assume inverters are dispatched or otherwise managed in the aggregate.

The study will not include analysis of load reduction approaches, such as demand response and energy efficiency as these resources are not eligible for NEM. However, the study results are expected to provide technology-neutral load reduction values organized by time and location. Order 26,221 directs Commission Staff to work with the consultant to develop and make available, if possible, a flexible and accessible valuation model that may be used to evaluate a number of NEM-eligible technologies other than those what are the focus of the study.

Eligible Avoided or Deferred Investment Costs

The LVDG study will consider the value of avoided or deferred distribution investment costs due to capacity constraint elimination at a number of locations on the New Hampshire electrical distribution grid.

Potential avoided or deferred distribution costs related to power quality and lower distribution elements, including distribution transformers and capacitor banks, will be considered on a system-wide level within Section 17 “Distribution Grid Support Services” of the VDER study, and not considered here. The LVDG study is not intended to determine a system-wide value for DG.

Timeframe

The study will examine avoided or deferred investment costs over a ten-year timeframe. The study baseline will review the last five years of load and investment data to establish historical expenditures. Order 26,221 directs Commission Staff to work with the consultant to determine whether an extended study period of a further five-year projection may be included as an additional option at a reasonable cost. It may be appropriate for later years of such an extended study period to be subject to discounting to reflect the greater uncertainty of a longer-term horizon.

Geographic Scope


Unitil, Eversource, and Liberty Utilities distribution asset locations.

Distribution System Analysis Level

Subtransmission (13kV-69kV), Substation, and Distribution Circuits.

Load Growth Projections

Conduct a baseline analysis utilizing load growth projections as developed by each utility for its planning processes, if available and to the extent possible. The study will incorporate both a high-load growth scenario and a low-load growth scenario to define sensitivity parameters around the baseline analysis. Order 26,221 encourages Commission Staff to work with the consultant to

Contractor Initials 

Date 8/28/19

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New Hampshire Locational Value of Distributed Generation Study Scope

determine whether heat pumps and other electric equipment, as well as the potential effects of greater than anticipated economic growth, should be included in the assumptions used for the high-load growth scenario analysis. The low-load growth scenario will account for potential increases in levels of energy efficiency, conservation, and demand response, or for slower than expected economic growth.

The LVDG study consultant is permitted to recommend the use of a counterfactual baseline analysis that excludes future projections of historically-observed growth in net-metered DG investment, under Order No. 26,227 (March 20, 2019).

Investment Threshold

The LVDG study scope specifies no minimum investment threshold level for the cost of upgrades that must be met before considering a location for further study. However, the level of analysis is expected to exclude small program investments that are part of a "system benefit initiative," such as pole top distribution transformers and capacitors. Those small program investments may be included in the separate system-wide VDER analysis currently under consideration. The LVDG study will focus on significant distribution system issues, and planned or potential investments.

Locations and Projects for Review

Projects considered for detailed review will include:

- Locations identified through forward-looking load growth projections and the screening method outlined below using N-0 criteria.
- Locations identified with capacity-related investments through review of five-year historical spending and planning materials.
- Locations with identified N-1 reliability investments due to capacity constraints in five-year historical spending plans and established investments in forward-looking five-year capital investment plans.
- Locations with non-load growth-related investment needs (e.g., asset management) that include increases to capacity may be reviewed in order to examine incremental investment costs due to equipment capacity increases.

Study Approach for New Hampshire LVDG Study

The following steps outline the study scope and methodology:

Step 1. Identifying Locations for Detailed Analysis

Contractor Initials 

Date 8/28/19

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New Hampshire Locational Value of Distributed Generation Study Scope

The LVDG study will employ a number of methods to identify locations for analysis. It will conduct an analysis on all substations and distribution circuits to identify locations with a high probability of requiring investments over the study timeframe for further review. The analysis will look at the projected load growth forecasts developed utilizing the existing utility distribution planning methodology. A high-load growth scenario, assuming significant beneficial electrification, and a low-load growth scenario, accounting for potential increases in energy efficiency, conservation, and demand response or for slower than expected economic growth, will also be examined as sensitivities. Using utility planning criteria, the analysis will determine where loads are expected to exceed the N-0 design rating of the lowest-rated component of each circuit. The study will also review established N-1 violations to identify capacity-related projected investments for review. That process is outlined in subsection A below. The study will review five years of historical investment information as well, to identify past capacity-related investments for review, as outlined in subsection B below.

A. Projected Violation Screening


(1) Utility Load Growth Forecast

A 5-year load growth forecast will be generated employing each utility's current forecast methodology, if available and to the extent possible. The consultant will use load growth forecasts developed through distribution forecast review and/or through work with utility planning departments as well as Commission Staff input. Utility load growth forecasts will be used as the preferred approach when available. If forecasts need to be developed beyond available utility forecasts, the consultant will work to incorporate weather forecasts, econometric forecasts, DG integration forecasts (unless otherwise recommended by the consultant), as well as known future residential, commercial, and industrial significant load impacts as incorporated in each utility forecasting process.

Identify Violations Using Component Criteria

The consultant will develop appropriate component criteria thresholds through distribution planning materials and forecast review and/or work with utility planning departments to develop a list of distribution circuits, subtransmission, and distribution substation capacities (i.e., components), and their associated peak loading on each location. Distribution assets that are forecasted to exceed normal (N-0) design criteria for capacity will be further reviewed. Identified N-1 violations will be reviewed for circuit, subtransmission, and substation projected forecasts.

In addition to the above screening, the most recent existing planning and other relevant documents will be reviewed to further assist in identifying locations for review. These may include, but are not limited to, utility capital plans and marginal cost of service studies.

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B. Identifying Additional Locations for Review

Five years of historical planning and expenditure information will also be reviewed to identify current or recent criteria violations and associated investments related to load growth or reliability-based capacity-constrained locations for review.

Once relevant locations have been identified through the screening process, the consultant will work with utility planning departments and Commission Staff to review each specific location in order to confirm the existence of load-related violations or the need to relieve forecasted overload conditions. That review will determine to what extent existing and projected capacity investments are related to load growth or reliability-based capacity constraints (as opposed to asset management replacements or other unavoidable upgrades), and therefore could be addressed by peak load reduction through DG energy production. Those confirmed locations, or a representative subset, will be used in Step 2.

2. Determining Avoided or Deferred Distribution Investment Costs

Confirmed projected and existing or historical overload locations will undergo a more detailed analysis in order to calculate actual or potential avoided or deferred investment costs. If a detailed load analysis is not feasible for all substations and circuits with confirmed load-growth-related constraints, the consultant will establish a representative subset by first grouping those locations by load shape characteristics (e.g., urban residential, rural residential, urban commercial, similar circuit proxies, etc.), and then selecting a representative sample from each group. This subset of locations will then undergo the more detailed analysis defined below to calculate potential avoided or deferred investment costs.

For each location with projected or historical load-growth or capacity constraint-related concerns, this method would perform analysis to determine the necessary upgrade(s) and investment costs based on modeled load growth projections.

(1) Identify Possible Upgrades and Required Load Reductions

The analysis will identify component upgrades and costs, tracking the utility planning process as closely as possible, as well as load reduction levels required to avoid or defer upgrades. This analysis may include, but is not limited to, the use of load flow analysis software.

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New Hampshire Locational Value of Distributed Generation Study Scope

(2) Develop Avoided or Deferred Cost Estimates

The consultant will work with each utility to develop investment cost estimates based on the utility's existing study-grade investment cost estimate methodology, which will include the previous five-year historical expenditures data. Equipment replacements will be reviewed to identify possible incremental additional costs associated with equipment capacity increases.

For recent and current investments identified as capacity constraint-related, available existing utility documents will be reviewed to determine investment costs and load reduction that would have been required to avoid violations. Equipment replacements will be reviewed to identify possible incremental additional costs associated with equipment capacity increases.

3. Assigning Values Using Load Profile and Mapping to Generation Profiles

The final step intends to assign values by capacity-constrained hours (i.e., hours of criteria threshold violation). In order to achieve potential avoided or deferred costs, load reduction must be provided at specific peak days and times during the year. Step 3 assigns values by capacity-constrained hours which will allow for further examination of the ability of DG to achieve avoided or deferred costs through load reduction during hours of actual or projected criteria threshold violation.

That analysis will allow comparisons of required load reductions to particular DG generation profiles to determine if a specific DG technology is likely to meet the required load reductions at a location, and therefore will be useful for informing NEM compensation mechanism discussions. This portion of the study will be performed at locations identified through Steps 1 and 2.

(1) Develop Representative Load Profiles

The consultant will work closely with utility planning departments to complete a review using utility information and guidance to determine representative load profiles for the specific selected locations. Additional data collection and analysis may be required to develop accurate load profiles. Representative load profiles will identify hours when load exceeds threshold cutoff (e.g., equipment thermal design rating). Avoided or deferred cost values will be allocated across the duration of required load reduction. Detailed methods for avoided or deferred cost allocation will be developed with the consultant and may include recommended methods outlined in the SEPA white paper, *Beyond the Meter: Addressing the Locational Valuation Challenge for Distributed Energy*.¹

¹ SEPA. (2016). *Beyond the Meter: Addressing the Locational Valuation Challenge for Distributed Energy Resources*. Retrieved from Smart Electric Power Alliance:
https://sepa.force.com/CPBase_item?id=a12o000000RNvYdAAL

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(2) Map DG Production Profiles to Load Profiles


Finally, a sample of DG electricity production profiles will be developed and mapped against the identified hours of need for each specified location to provide illustrative examples of DG contributions to load reduction. Sample profiles investigated for this study will include DG systems eligible for NEM, including solar, hydroelectric, and solar plus storage.

However, in order to achieve avoided or deferred costs, load reduction must be provided at specific peak days and times during the year and a mechanism must be in place to ensure the DG is available when needed. LVDG study results will be indicative of potential values for associated load reduction, and compensation mechanism discussions should also address reliability and performance issues.

Study Process and Timeline

The consultant and Commission Staff will hold periodic stakeholder working group meetings, not less frequently than bi-monthly, to provide status updates and answer questions during the LVDG study process. In addition, Commission Staff will convene a stakeholder working group meeting in connection with any major step in the study process, even if that meeting would be held sooner than would otherwise occur under the bi-monthly schedule. Commission Staff will also provide to the stakeholder working group certain material documentation, such as any reports and analyses completed in connection with the first two steps of the study process, on an interim basis during the study period.

The LVDG study is anticipated to commence during the second calendar quarter of 2019, following engagement of the study consultant, and to be completed by the end of 2019.

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EXHIBIT B

BUDGET, PRICE LIMITATION, AND PAYMENT

1. **Estimated Budget and Contractor Charges.** Navigant Consulting, Inc. ("Contractor") shall charge for services rendered on a time and materials basis with fees for professional services charged at the hourly rates specified in its Proposal for Locational Value of Distributed Generation Study Consultant, submitted on May 14, 2019 in response to Commission RFP #2019-003 ("Proposal"), and for related reasonable out-of-pocket expenses incurred, up to a total not-to-exceed price of \$400,000.00.

The Contractor shall not substitute or change project team personnel identified in its Proposal without prior written notice to, and the consent of, Commission Staff, which consent shall not be unreasonably withheld, conditioned, or delayed.

2. **Not-to-Exceed Price Limitation.** There shall be a total not-to-exceed contract price of \$400,000.00 for the performance of all consulting services, and related reasonable out-of-pocket expenses incurred, in connection with the required scope of services described in Exhibit A. Contractor shall not be required to provide services after submission of total invoices in the amount of \$400,000.00, absent a duly approved amendment increasing the not-to-exceed-limit of \$400,000.00.
3. **Method of Payment.** Payment shall be made upon completion of work on the basis of monthly invoices issued by the Contractor, which shall be supported by a detailed summary of services provided in accordance with the terms of this Contract, together with a detailed listing of related reasonable out-of-pocket expenses incurred. Invoices shall provide adequate back-up, including the dates and hours worked by the Contractor during the month and the specific services provided by professional during those hours. All invoices shall be submitted to the following address:

Business Office, New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, New Hampshire 03301-2429

Payments hereunder shall be contingent upon the availability of funds assessed pursuant to RSA 365:37, II. The Commission will assess the costs of this Contract to Public Service Company of New Hampshire d/b/a Eversource Energy, Liberty Utilities (Granite State Electric) Corp., d/b/a Liberty Utilities, and Unitil Energy Systems, Inc. Upon payment of that assessment, the Commission will promptly process payment to the Contractor. General Funds will not be requested to support this Contract.

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EXHIBIT C

SPECIAL PROVISIONS

The General Provisions of the Agreement (Form Number P-37) between the Public Utilities Commission and Navigant Consulting, Inc. are modified as follows:

A new Paragraph 9.4 shall be added to read as follows:

“9.4 All work product and other deliverables provided by Contractor shall be solely for use by the State for its official purposes and any other specific purposes set forth in this Agreement and/or as contemplated by RFP #2019-003, including, without limitation, the obligations of the State under RSA 91-A, “Access to Governmental Records and Meetings.” There are no third party beneficiaries of this Contract. The Contractor shall retain sole and exclusive ownership of all rights, title, and interest in its proprietary information, processes, methodologies, know-how, and software, as existed prior to the delivery of the Services (“Contractor Knowledge”). To the extent any Contractor Knowledge is embodied in any deliverables provided hereunder, Contractor grants the State a non-exclusive, royalty-free, non-assignable license to use such Contractor Knowledge solely for the purposes set forth in this Agreement and/or as contemplated by RFP #2019-003, including production in discovery, and subject to disclosure by the Commission as required by RSA 91-A, “Access to Governmental Records and Meetings.””

In lieu of the insurance requirements set forth in Paragraphs 14.1.1 and 14.1.2 of the General Provisions, the Commission shall accept comprehensive general liability insurance against all claims of bodily injury, death, or property damage, on an occurrence basis, in amounts not less than the following limits:

\$1,000,000	Each Occurrence
\$1,000,000	Damage to Rented Premises (each occurrence)
\$ 10,000	Medical Expenses (any one person)
\$1,000,000	Personal and Advertising Injury
\$2,000,000	General Aggregate
\$2,000,000	Products – Comp/Op Aggregate

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9/23/17

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State of New Hampshire

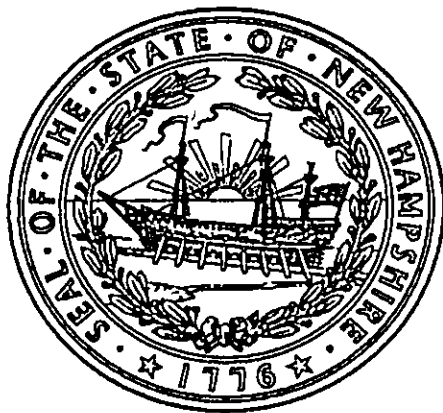
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that NAVIGANT CONSULTING, INC. is a Delaware Profit Corporation registered to transact business in New Hampshire on December 02, 2003. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 457291

Certificate Number: 0004517960



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 20th day of May A.D. 2019.

A handwritten signature in black ink, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State


August 28, 2019

Re: Certificate of Authority

To the New Hampshire Public Utilities Commission:

As of the date of this Certificate, David Walls is a Managing Director of Navigant Consulting, Inc. ("Navigant"), and, as such, is duly authorized to enter into, execute, and deliver, in the ordinary course of business and subject to the applicable policies and procedures established by Navigant, a contract with the State of New Hampshire for Navigant to perform a Locational Value of Distributed Generation Study for the New Hampshire Public Utilities Commission. Such authorization is pursuant to the resolution of the Board of Directors of Navigant (a certified copy of which is attached hereto), which resolution was duly adopted and remains in full force and effect as of the date hereof.

Navigant Consulting, Inc.

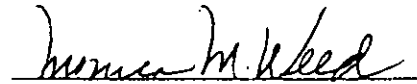
By: 
Monica M. Weed
Executive Vice President, General
Counsel and Corporate Secretary

CERTIFICATE

I, Monica M. Weed, General Counsel and Secretary of Navigant Consulting, Inc., an entity lawfully organized and existing under the laws of the State of Delaware (“NCI” or the “Company”), do hereby certify that the following is a true and correct copy of a resolution adopted on the 21st day of October 2004 by the Board of Directors of Navigant Consulting, Inc., in accordance with all of its documents of governance and management and the laws of the State of Delaware and further certify that such resolutions have not been modified, rescinded or revoked, and are at present in full force and effect:

“NOW, THEREFORE, BE IT RESOLVED, that any employee with the title of managing director or director may, in the ordinary course of business and subject to applicable policies and procedures established from time to time by NCI’s officers and the Management Committee, enter into and execute on behalf of NCI any proposal, engagement letter, confidentiality agreement or similar routine agreement with a client or prospective client.”

IN WITNESS WHEREOF, the undersigned has executed this certificate this 19th day of April, 2019.



Monica M. Weed
General Counsel and Secretary



CERTIFICATE OF LIABILITY INSURANCE

12/31/2019

DATE (MM/DD/YYYY)

8/13/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER LOCKTON COMPANIES 500 West Monroe, Suite 3400 CHICAGO IL 60661 (312) 669-6900	CONTACT NAME: PHONE (A/C, No, Ext): _____ FAX (A/C, No): _____ E-MAIL ADDRESS: _____														
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A : Federal Insurance Company</td> <td>20281</td> </tr> <tr> <td>INSURER B : Great Northern Insurance Company</td> <td>20303</td> </tr> <tr> <td>INSURER C :</td> <td></td> </tr> <tr> <td>INSURER D :</td> <td></td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Federal Insurance Company	20281	INSURER B : Great Northern Insurance Company	20303	INSURER C :		INSURER D :		INSURER E :		INSURER F :
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INSURER E :															
INSURER F :															
INSURED 1352092 Navigant Consulting, Inc. 150 N. Riverside Plaza Suite 2100 Chicago, IL 60606															

COVERAGES NAVCO01 **CERTIFICATE NUMBER:** 16241324 **REVISION NUMBER:** XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GENL AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: _____	N	N	36024405	12/31/2018	12/31/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	N	N	73586804	12/31/2018	12/31/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
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A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	71755532	12/31/2018	12/31/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER 16241324 Public Utilities Commission 21 South Fruit Street Suite 10 Concord NH 03301	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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