



MASTER SERVICES PROCUREMENT AGREEMENT

THIS MASTER SERVICES PROCUREMENT AGREEMENT (the “Agreement”) is made this 24th day of September 2021 (the “Effective Date”) by and between **Avangrid Service Company** a Delaware, with offices located at One City Center, 5th Floor, Portland, Maine 04101 “Customer” [REDACTED] (hereinafter, “Supplier” or “Vendor” or “Contractor”). Customer and Supplier may be referred to individually as a “Party” and collectively as the “Parties.”

WHEREAS, Customer is authorized to assist the utility operating company(ies) identified in **Schedule A**, attached hereto and made part hereof, in procuring certain services that they may require from time to time in the operations of their respective businesses, including the services described in **Schedule B**, attached hereto and made part hereof (the “Services”); and

WHEREAS, the Supplier states that it is an established and well-known provider of the Services possessing the skills, qualifications, and experience necessary to perform and manage such Services in an efficient, cost-effective, and controlled manner, with a high degree of quality and responsiveness, and that it has successfully performed similar services for other customers and is willing to provide the Services to the utility operating company Affiliates of Customer in accordance with the terms and conditions of this Agreement; and

WHEREAS, in reliance upon such statements and following its review of Supplier’s proposal and negotiation of business terms, Customer has selected the Supplier as a vendor-of-choice for the Services, which shall be procured and awarded in accordance with this Agreement.

NOW THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the Supplier and Customer hereby agree as follows:

1. DEFINITIONS

As used in this Agreement:

- (a) “Affiliate” shall mean, with respect to a Party, any other entity Controlling, Controlled by, or under common Control with such Party. The term “Control” and its derivatives shall mean with regard to any entity, the legal, beneficial, or equitable ownership, directly or indirectly, of fifty percent (50%) or more of the capital stock (or other ownership interest, if not a corporation) of such entity ordinarily having voting rights.
- (b) “Business Day” – A calendar day other than Saturday, Sunday or a legal, public or bank holiday in the State of New York.
- (c) “Company” shall mean the company(ies) specified in **Schedule A**, attached hereto and made part hereof.

- (d) “Company Department” shall mean the business unit in AVANGRID that coordinates and manages this Agreement.
- (e) “Contract Price” shall mean, the total amount payable by the Company to the Supplier for the performance of the Services under this Agreement for each applicable Purchaser Order.
- (f) “Day” shall mean a calendar day including Saturday, Sunday or a legal, public or bank holiday in the State where the services will be performed.
- (g) The “Effective Date” shall mean the date specified in the recitals of this Agreement.
- (h) “Industry Standards” - Any of the practices, methods, standards and acts engaged in, or approved by, a significant portion of the independent power industry for the engineering, procurement, construction and maintenance of a static synchronous compensator similar to the Project and located in the United States that, at a particular time, in the exercise of prudent and reasonable judgment by those experienced in the industry, in light of the facts known or that should reasonably have been known at the time a decision was made, could have been expected to accomplish the desired result consistent with good business practices, reliability, economy, health, safety and expedition. “Industry Standards” are not intended to be limited to the optimum practices, methods or acts to the exclusion of all others, but rather to be practices, methods and acts generally accepted in the United States, having due regard for, among other things, manufacturers’ warranties, contractual obligations, the requirements or guidance of any Governmental Authority, Applicable Law, applicable NERC reliability requirements and the requirements of applicable insurance policies.
- (i) “Intellectual Property” – In relation to any and all technology, software, firmware, know-how, processes, inventions, ideas, discoveries, techniques, algorithms, programs, discoveries, improvements, devices, products, concepts, designs, prototypes, samples, models, technical information, materials, drawings, specifications, mask works, topography and other works of authorship, any and all rights, priorities and privileges relating to intellectual property therein, whether arising under United States, multinational or foreign laws or otherwise, including but not limited to copyright applications and registrations, copyright licenses, patent applications and registrations, patent licenses, trademark applications and registrations, trademark licenses, trade secret rights and all rights to sue at law or in equity for any infringement or other impairment thereof, including the right to receive all proceeds and damages therefrom.
- (j) “Project” shall mean the services specified in each Purchase Order.
- (k) “Project Completion Date,” means the date in which the Project is fully realized to the satisfaction of the Customer and applicable Company (ies).
- (l) “Purchase Order” shall mean a purchase order issued by Company or a Company (ies) in accordance with this Agreement.

- (m) “RFP” shall mean a request for proposal for all or a portion of the Services by Customer or the Company.
- (n) “Scope of Work shall mean the services described in **Schedule B**, attached hereto and made part hereof.
- (o) “Services” shall mean the services and/or related materials described in **Schedule B**, attached hereto and made part hereof.
- (p) “Small Business Concern” as defined by the Small Business Administration, shall mean a business that is independently owned and operated and which is not dominant in its field of operation. The law also states that in determining what constitutes as small business, the definition will vary from industry to industry to reflect differences accurately.
- (q) “Supplement” is a written Purchase Order Supplement, signed by the Customer and issued after the execution of this Agreement, authorizing an addition, deletion, or revision in the Services or an adjustment in the Contract Price or the Schedule.
- (r) “Term” shall mean the term of this Agreement, as extended or terminated early in accordance with this Agreement.
- (s) “Terms and Conditions” shall mean the terms and conditions governing the performance of the Services and related matters pursuant to a Purchase Order, as set forth in **Schedule C**, attached hereto and made part hereof.

2. PROCESS FOR AWARDING SERVICES

2.1 Customer agrees that, upon a request made to Customer by a Company for assistance in procuring Services, Customer shall, on its own or with the assistance of the Company(ies) requiring the Services, take either of the steps delineated in subsections (a) or (b) toward procuring Services from the Supplier:

(a) Issuance of Purchase Order. Customer or the Company(ies) requesting the Services shall issue to the Supplier duplicate originals of a Purchase Order for the Services incorporating: (i) a scope of work consistent with the standards set forth in **Schedule B**, (ii) the Terms and Conditions set forth in **Schedule C**, and (iii) and the pricing terms set forth in **Schedule D**. Upon receipt of an authorized Purchase Order, Supplier shall commence performance of the Services in accordance with the terms therein.

OR

(b) Issuance of an RFP. (i) Customer or the Company(ies) requesting the Services shall issue an RFP to the Supplier. Within the time period specified in the RFP, Supplier shall issue a written proposal to Customer, or if so directed, to the Company specified in the RFP, setting forth: (1) a detailed description of the Services to be provided by the Supplier, consistent with the scope and

other requirements specified in the RFP, and (2) Supplier's fees and charges for completing the Services, which will be incorporated as **Schedule D** of the Agreement and Supplier warrants will be calculated in accordance with the pricing terms set forth in **Schedule D**, attached hereto and made part hereof.

(ii) Within the time period specified in the RFP, Customer and/or the Company (ies) shall review the Supplier's proposal. If Customer and the Company(ies) requiring the Services, in their sole and absolute discretion, determine that they wish to award a contract for Services and thereupon select the Supplier's proposal, Customer may elect to issue a Purchase Order and (in such instance) Customer shall forward duplicate original Purchase Orders for the Services (conforming with the requirements of Section 2.1(a), above, but also incorporating the Supplier's proposal in accordance with this Agreement) to the Supplier at the address specified in **Schedule F**, below. Upon receipt of an authorized Purchase Order, Supplier shall commence performance of the Services in accordance with the terms therein.

2.2 (a) Notwithstanding anything to the contrary in this Agreement or in any Purchase Order or RFP issued hereunder, Customer makes no representation or warranty that Customer or any Company(ies) will issue any Purchase Orders or RFPs, or any minimum dollar volume of Purchase Orders or RFPs, during the Term of this Agreement. Customer or the Company (ies) requesting Services may terminate a Purchase Order or RFP for such Services at any time upon written notice, without penalty or other obligation, prior to commencement of performance of the Services by Supplier in accordance with the terms herein.

(b) Supplier acknowledges and agrees that the issuance of an RFP, Purchase Order, or other document pursuant to this Section 2 by Customer, or any Company(ies), shall not constitute an offer by Customer, or any Company, to purchase Services, and that an enforceable agreement for Services shall result only when Customer or any Company(ies) authorizes a Purchase Order for such Services, processed in accordance with this Article 2, and such Purchase Order is issued to Supplier by Customer, or a Company.

(c) Supplier further acknowledges that each Purchase Order processed in accordance with this Article 2 and issued to Supplier by Customer, or a Company, constitutes a separate and distinct contract for the particular Services set forth in the Purchase Order and shall be governed by the following documentation:

- (i) The Purchase Order (exclusive of its pre-printed terms and conditions);
- (ii) Special Conditions attached hereto as **Schedule E**.
- (iii) The Terms and Conditions attached hereto as **Schedule C**, as they may be amended or modified for the particular Purchase Order;
- (iv) The Data Security Rider attached hereto as **Schedule H**;
- (v) The Insurance requirements attached hereto as **Schedule G**

(vi) The Scope of Services document attached hereto as **Schedule B**, as it may be amended, modified or supplemented for the particular Purchase Order; and

(vii) This Agreement, including all Schedules other than those described in subsections (i), (ii), (iii), (iv), (v), (vi) and above.

In the event of any inconsistency among the aforementioned documentation, the order of precedence shall be as set forth in subsections (i), (ii), (iii), (iv), (v), (vi), and (vii) above.

3. PRICING; PAYMENT; DISCOUNTS AND REFUNDS

3.1 (a) Supplier agrees that pricing, fees, pass-throughs, and other charges set forth in **Schedule D** will be incorporated into and used as the basis for all pricing, fees, pass-throughs, and other charges in: (i) any proposal issued by Supplier hereunder, and/or (ii) any Purchase Orders pursuant to this Agreement.

(b) Supplier agrees that the pricing terms set forth in **Schedule D** shall be fixed for the time period specified in such Schedule and shall not be subject to increase except as expressly specified in such Schedule. If **Schedule D** does not specify a time period, pricing terms shall be fixed for the Term of this Agreement.

3.2 (a) Supplier agrees that, in calculating any discounts or adjustments to prices, fees, pass-throughs, and charges set forth in **Schedule D** that are based upon volumes or quantities of Services awarded to Supplier, Supplier shall include in such calculation the volumes or quantities of Services for all Purchase Orders issued by Customer or any Company (ies) during the relevant time period.

(b) Within thirty (30) days following each anniversary of the Effective Date of this Agreement, Supplier shall forward to Customer a draft reconciliation statement showing Supplier's calculation of any rebates or refunds payable as a result of the total value of all Purchase Orders for Services executed by the Company(ies) with the Supplier during the preceding calendar year. Customer shall review the reconciliation statement and will notify Supplier of any comments they may have with respect thereto within thirty (30)-days of their receipt thereof. Supplier shall pay to Customer the undisputed portion of any rebates or refunds due the Company (ies) under executed Purchase Orders for Services within five (5) business days following the earlier of: (i) Supplier's receipt of the comments of Customer and Company(ies), and (ii) the thirty (30) day period referenced in the immediately preceding sentence.

4. NO GUARANTY; HOLD HARMLESS

Supplier acknowledges and agrees that, notwithstanding anything to the contrary contained in this Agreement, any subsequently issued RFP, or in any Purchase Order between Supplier and any Company(ies), that with respect to any Purchase Order for Services issued by any Company(ies) pursuant to this Agreement:

- (a) All charges, fees, and expenses, as well as any credits, refunds, or rebates, resulting from Services rendered by Supplier pursuant to such Purchase Order shall be solely for the account of such Company(ies), and neither Customer nor any other Company(ies) shall be considered a guarantor or surety of any charges, fees, and expenses arising under such Purchase Order;
- (b) All communications, notices, invoices, and reports resulting from Services rendered by Supplier pursuant to such Purchase Order shall be directed to the representative(s) of the Company(ies) identified in such Purchase Order;
- (c) Supplier covenants not to sue Customer or any other Company(ies) except the Company issuing the Purchase Order, for any charges, fees, expenses, or claims arising from or attributable to Services rendered by Supplier pursuant to such Purchase Order; and
- (d) Pursuant to Article 19 of **Schedule C**, Supplier shall hold Customer and the other Company(ies) and their respective employees, agents, officers, shareholders, affiliates, managers, directors, members, partners, successors, and permitted assigns harmless from and against any and all damages or liabilities arising from or attributable to, directly or indirectly, the performance, non-performance, or other acts of the Supplier and its employees, agents, or representatives pursuant to such Purchase Order.

5. TERM

5.1 This Agreement shall remain in effect for three (3) years or until terminated according to Section 5.2(b) below.

5.2 (a) Customer may terminate this Agreement at any time and for any or no reason in accordance with the terms of Article 27 of **Schedule C** to this Agreement. Upon the effective date of termination specified in Customer's termination notice: (i) all RFPs, proposals, and Purchase Order for which Supplier has not begun to deliver the Services shall be deemed canceled, unless otherwise agreed in writing by the Company(ies) requesting or issuing such RFPs, proposals, and/or Purchase Orders, and (ii) this Agreement shall be terminated without liability or obligation to the Parties, except for any liabilities and obligations arising under any Purchase Orders issued by Customer or Company(ies) for which Supplier has already completed Services in accordance with the terms of this Agreement. Customer shall have no liability for any costs, expenses, or other fees incurred by Supplier in connection with any RFPs, proposals, or Purchase Orders that are in process but for which provision of Services has not been completed upon the effective date of termination of this Agreement by Customer.

(b) Termination of this Agreement by Customer shall not effect, or result in, termination of any Purchase Orders issued by Customer or a Customer and for which Supplier has begun to deliver Services prior to the effective date of termination set forth in Customer's termination notice; provided, however, that this subsection (b) shall not constitute a waiver or relinquishment of any right of termination of any Customer pursuant to the terms and conditions of such Purchase Orders.

6. GENERAL

6.1 Notices. All notices, requests, demands, and determinations under this Agreement shall be in writing and shall be deemed duly given: (i) when delivered by hand, (ii) one (1) day after being given to an express courier with a reliable system for tracking delivery designating overnight delivery, (iii) when sent by confirmed facsimile with a copy sent by another means specified in this Section 6.1, or (iv) six (6) days after the day of mailing, when mailed by United States mail, registered or certified mail, return receipt requested, postage prepaid, and addressed to Party at the address(es) specified in ***Schedule F*** attached to this Agreement and made a part hereof. A Party may from time to time change its address or designee for notification purposes by giving the other prior written notice of the new address or designee and the date upon which it will become effective.

6.2 Governing Law. This Agreement and performance under it, and all actions, causes of action, or claims of any kind (whether at law, in equity, in contract, in tort, or otherwise), shall be governed by and construed in accordance with the laws of State of New York, including without limitation New York laws relating to applicable statute of limitation and burdens of proof and available remedies.

6.3 Binding Nature and Assignment. This Agreement shall be binding on the Parties hereto and their respective successors and assigns. Neither Party may, or shall have the power to, assign this Agreement without the prior written consent of the other, and any such assignment or attempted assignment without such consent shall be null and void, except that Customer may assign this Agreement and its rights and obligations hereunder to an Affiliate without the approval of the Supplier, but on prior written notice.

6.4 Entire Agreement: Amendment. This Agreement, including any Schedules referred to herein and attached hereto, each of which is incorporated herein for all purposes, constitutes the entire agreement between the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to the subject matter contained in this Agreement. No change, waiver, or discharge hereof shall be valid unless in writing and signed by an authorized representative of the Party against which such change, waiver, or discharge is sought to be enforced.

6.5 Counterparts. This Agreement may be executed in several counterparts, all of which taken together shall constitute one single Agreement between the parties hereto.

6.6 Headings. The article and section headings and the table of contents used herein are for reference and convenience only and shall not enter into the interpretation hereof.

6.7 Relationship of Parties. Supplier is not an agent of Customer and has no authority to represent the Customer as to any matters, except as expressly authorized in this Agreement.

IN WITNESS WHEREOF, Customer and Supplier have each caused this Agreement to be signed and delivered by its duly authorized representative as of the date first given above.

[Signature page follows]

Avangrid Service Company

DocuSigned by:
Andrea Vanluling
F3215E408C034DF...
Signature

Andrea Vanluling

Print Name

VP Controller - Networks

Title

Avangrid Service Company

DocuSigned by:
Catherine Stempien
F4F4410BFAFA472...
Signature

Catherine Stempien

Print Name

President & CEO, Avangrid Networks

Title



SCHEDULES:

- Schedule A: Companies
- Schedule B: Services
- Schedule C: Terms and Conditions
- Schedule D: Pricing Terms
- Schedule E: Special Conditions
- Schedule F: Notices
- Schedule G: Insurance Requirements
- Schedule H: Data Security Rider
- Schedule I: Background Check Requirements
- Schedule J: Avangrid Networks Contract Safety Guide

SCHEDULE A Companies

Central Maine Power Company

Augusta General Office
83 Edison Drive, Augusta, Maine 04336

New York State Electric & Gas Corporation

89 East Avenue
Rochester, New York 14649

Rochester Gas and Electric Corporation

89 East Avenue
Rochester, New York 14649

The Berkshire Gas Company

115 Cheshire Road
Pittsfield, MA 01201

Maine Natural Gas Corporation

4 Industrial Parkway
Brunswick, ME 04011

UIL Holdings Corp.

180 Marsh Hill Rd, Orange, CT 06477

**The United Illuminating Company
Ops Center**

100 Marsh Hill Rd, Orange, CT 06477

The Southern Connecticut Gas Company

Locations:

SCG Ops Center

Southern Connecticut Gas
60 Marsh Hill Rd, Orange, CT 06477

SCG LNG

775 Oronoque Rd, Milford, CT 06461

Connecticut Natural Gas Corporation

Locations:

CNG LNG

1376 Cromwell Ave, Rocky Hill, CT 06067

CNG Ops Center

East Hartford

76 Meadow Street, East Hartford, CT 06108

SCHEDULE B Services, Warranty, Deliverables, and Vendor Requirements

Scope of Services for FCM Electric Projects and Testing & Commissioning (All OpCos)

1. Field Construction Manager (FCM)

The FCM, led by the Project Manager and Construction Manager coordinates, manages and supervises all construction and on-site electromechanical tasks, as well as the civil work. The FCM coordinates the schedule with the Project Manager and Construction Manager with regard to the required site progress, the resources required and their mobilization and demobilization in time, and the corrective measures necessary in order to accomplish the work as far as safety, quality, schedule and cost.

1. General Tasks

- Field Support to Fix Problems – Being Proactive
- Make notifications to open and close daily work. Check the perimeter of the substation/ROW at the beginning and end of the shift. Call Energy Control Center & Security Operation Center in case of anomalies.
- Must do Reporting – Weekly Report, Monthly Reports, site weekly minutes of meetings.
- Monitor Schedule - Look Ahead vs. PM
- Must attend the contractor's safety, environment and Quality meetings; provide a tip in the onsite meeting.
- Keep on site and updated the H&S, Environment and Quality project binder.
- FCM must be organized, must document everything to provide a good paper trail
- Work in the preparation of Final File.
- Must review contractor invoices and schedules.
- Conduct weekly project progress meeting. Request the contractor two week look ahead schedule at each weekly meeting.
- Must be always On-site whenever work is being performed (make frequent observation of contractor's activities and adherence to M&PT when in public ROW). Immediate notification to PM of any and all problems or foreseeable issues throughout construction or any complaint presented by the general public.
- Coordinate Material delivery between AVANGRID Stockroom, and Contractor.
- Inspect all project related construction material for damage and completeness for the project execution
- Inspect work in progress to ensure that workmanship conforms to specifications, quality and adherence to construction schedules.
- Facilitate resolving construction problems, discrepancies, procedures, and methods by working with engineering personnel, inspectors, contractors and suppliers. Must have strong communications skills.
- Minimize Change Orders. Support Project Manager Services to review any requested Change Orders/Notices or other claims submitted by Construction Contractors which relate to additional payments, schedule adjustments or other modifications to the Project, and make such recommendations to the utility regarding the legitimacy of such claims, and review the Construction Contractor's proposed mitigation.

- Review and understand the project Documentation and any related documentation and provide input to enhance the constructability of the Project, taking into account schedule, cost and quality considerations.
- Must be able and willing to be trained in E-STAR/CONVEX (switching and tagging) trained.
- Initiate transmission outage requests for project work through E-STAR and/or CONVEX
- Maintain a project change order and correspondence log
- Maintain a daily on-site as-build project plans (on-site must match contractors working copy)
- Continuously communicate (written and verbally) with the associated PM
- Coordinate as necessary with all local and state municipalities throughout project execution
- Ensure all CIP/NERC requirements are maintained throughout the project execution

2. Safety

- Assist with Review and concurrence of HASP from each contractor.
- Attend or carry out daily brief prior to starting work. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator. Get a copy of the contractor daily brief.
- Provide Safety Orientation to the workers and to ensure the test is filled.
- Ensure that the visitor and/or worker is aware of the daily brief content and sign off the form.
- Ensure that visitors have an escort during the visit
- Daily safety supervision of the activities and at least to carry out a weekly written inspection.
 - Agree with the contractor the preventive measures and the close date for the safety violations detected and monitoring with the contractor their closure. Report safety inspections to PM.
- Ensure that any accident, incident, near miss or injury is reported and investigated. Collaborate in the AVANGRID incident report.
- Propose Corrective Action reports and Preventive Action Report (CAR/PAR) to the SHEQ manager and collaborate in the implementation.

3. Environment

- Review the project Environmental Management Plan and provide improvements.
- Include an environmental tip in the daily brief prior to starting work. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator.
- Provide Orientation to the workers and to ensure the test is filled out.
- Daily Environmental supervision of the activities and at least to carry out a weekly written inspection.
 - Provide to the contractor, SHEQ and PM the Environmental inspections and monitoring with the contractor their closure.
- Ensure that any Environmental incident is reported and investigated and collaborate in the AVANGRID incident report.

- Review and pass along to Owner copies of environmental inspection reports, including those of third-party inspectors.
- Perform, document, and record weekly audits and inspections of the Contractor's documentation and work site
- Propose CAR/PAR to the SHEQ manager and collaborate in the implementation.
- Immediately notify AVANGRID PM of any regulatory inspector (i.e. NYSDEC, Maine DEP, EPA, FWS, CT DEEP, etc.) appearing onsite and any external communications from external parties.

4. Quality

- Assist with Review and Concurrence of Inspection Test Plan from each contractor. Shall be filled out as soon as the task is completed.
- Ensure that the ITP and deliverables are filled in the Contractor binder. The contractor MUST keep on site all the records organized.
- Ensure that there are on site the IFC drawings (with list of drawings) updated and with the transmittals.
 - Review the drawings and look ahead for mistakes
- Follow the red marks-ups and to collect all red marks in the FCM drawings hard copy.
 - Responsible for red mark-ups and ensure all contractors have current revision of drawings – Below Grade, Above Grade and Testing and Commissioning.
- Control properly the Project Request For Information, Design Change Notification, Proposal of Design Modification, Field Change Notification, Notice of Design Modification. Ensure that the RFI are answered and the design changes are followed.
 - FCM Cannot Approve DCN's or FCN's but is responsible for tracking, validation and execution of approval
- Collect all the project's permits requirements ensuring their compliance.
- Coordinate the permit inspections
- Verify equipment testing performed by contractor.
- Verification of as built data prior to submittal to AVANGRID.
- Perform, document and record weekly audits and inspections of the Contractor's documentation and work site.
- Propose NC to the PM and SHEQ. Follow the NC opened and document their closure.
- Review the contractor material submittal and send to the PM and Engineering for approval.
- Verify material receipts and note any discrepancies on packing slips. Storage material received according manufacture instructions .Report to AVANGRID PM or designee.
- Upload and assist with Document Control & Quality in Project Wise
- Propose Lessons Learned Weekly for complete project Lessons Learned Summary
- Carry out a **Weekly** quality inspection.
- Conduct pre and post energization inspections and ensure documentation is filled out and submitted to Project Team for review.

- Conduct material reconciliation at end of project with OWNER and Contractor supplied material.
- Verify all SAP data forms are filled out by contractor as equipment is being removed or installed.

5. Work Experience

Must have a BS/BA degree in an engineering discipline from an ABET (or equivalent) accredited college/university or 10 years' experience in the following areas:

- Construction Management
- Construction, maintenance and testing of electrical equipment
- Relay protection and control systems
- Start-up and commissioning of electrical equipment and systems
- Electrical Field engineering
- Arc Flash safety training
- Troubleshooting of electrical equipment or systems.
- SCADA and communication systems

2. **Construction Manager**

In addition to the tasks of the Field Construction Manager, the Construction Manager will be requested to perform the following tasks:

- Development, planning, design (what are they designing?), construction, commissioning and closeout activities.
- Review of the construction specification prepared by the Engineering Firm.
- Verifying the BOM and Pricing tables provided by the engineering contractor for the various packages by physical work units that is buildable, measurable and identifiable, with a unit price.
- Review the engineering provided price definition document: defining the scope of each price applicable to each physical and measurable unit to be built.
- Review and comment on sub schedule or milestone proposal to be achieved by the Construction Contractor.
- From a construction perspective provide feedback on bid responses including attendance at specific meetings with Construction Contractors if necessary.
- Preparation of an Offer Evaluation Technical Report (ITEO) for each construction package in conjunction with the project manager and project engineers technically validating the Construction Contractors who are capable of building the package under the conditions set out by the applicable documentation. This report must be reviewed and approved by AVANGRID E&CD.
- Participate in the construction Kick-off meeting with the Construction Contractor.
- Handing-over and control of Issued for Construction documentation.
- Monitoring the implement the site supervision facilities: office with communications, water and electricity distribution network for the various contractors, site access roads, physical delimitation of the site, if possible, site access control, identification of the warehouse area, etc.
- Verify environmental and construction permits, and compliance to permit conditions where applicable.

- Review and Accept of the contractor's Safety, Quality Control (ITPs) and Environmental Management Plans that apply to each package.
- Review and Accept of the contractor's execution procedures prior to the beginning of activities.
- Control of work schedules carried out by the Construction Contractors and update of production progress.
- Physical control of the executed work units (how many units have been completed).
- Technical control of the executed work units (tests are carried out and Inspection Test Plans (ITPs) fulfilled).
- Monitoring the source of the materials provided directly by the Construction Contractors
- Review of the test protocol, where applicable.
- Control of the means and human resources provided by the Construction Contractor. Obtaining production ratios, milestone achievement trends and deadlines.
- Warehouse management.
- Working with FCM - Field Change Management working with field engineer to provide recommendation of approval of field changes and impact to cost and schedule.
- Working with FCM - Cost control of each package: Measurement of units to be executed and execution unit tendencies of the packages, introducing approved changes or modifications.
- Working with FCM - Production information necessary for the correct project financial and deadline tracking based on the project's general scope and schedule.
- Analysis of program fulfillment: Work finalization tendencies are established and any delays/advances as they occur.
- Receipt, review and approval, generally on a monthly basis, of certifications prepared by Construction Contractors and reviewed by FCM in order to receive payment for completed contracted work units. Payment will be made "in good faith", that is, without necessarily implying definitive approval of the work.
- Analysis of delays in the schedule: possible speeding-up plans.
- Analysis of extra budget costs and their causes.
- Price and deadline impacts of any significant incident on the project during the construction stage.
- Establishing the progress of each contract or package: significant incidents
- Communication of construction contract closing FCM.
- Preparation of the final file and transfer reports, in collaboration with Quality.
- Handover of parts of construction work or buildings requested by the PMS.
- Preparation of list of pending issues and classification by type in collaboration with PMS and FCM.
- Closing of pending issues needs to be documented and accepted by the party receiving the construction work. This is an iterative process.
- Must be able and willing to be trained in E-STAR / CONVEX (switching and tagging) trained.

1. Work Experience

Must have a BS/BA degree in an engineering discipline from an ABET (or equivalent) accredited college/university or 15 years' experience in the following areas:

- Construction Management
- Construction, maintenance and testing of electrical equipment
- Relay protection and control systems
- Start-up and commissioning of electrical equipment and systems
- Electrical Field engineering
- Arc Flash safety training
- Troubleshooting of electrical equipment or systems.
- SCADA and communication systems

3. **Senior Testing & Commissioning Manager (ST&CM)**

1. General Summary

This position is responsible for the oversight and/or management of the Testing and commissioning of high voltage substation projects. The role will provide testing and technical support for both greenfield and brownfield substation projects.

The ST&CM has the responsibility for the overall effort required to energize the project. She/he manages the pre-commissioning, commissioning, primary equipment (also referred to as HV Apparatus or Component), P&C equipment and systems testing, A&I equipment and systems testing, coordination for the testing of the Network and Security System, substation functional testing and energization activities.

The ST&CM must be familiarized with the AVANGRID T&C Philosophy document and procedures.

2. Safety

The Commissioning Manager is responsible for performing his duties and responsibilities in a safe manner. This includes wearing proper PPE (hardhat, safety glasses, steel-toed shoes, FR clothing), actively participating in job briefings (daily and whenever a change in the work occurs including crew change, condition change, etc.), having a questioning attitude and keeping vigil for the safety of himself/herself and those around him/her.

3. Senior T&CM main functions and responsibilities

- Review detailed engineering drawings to gain understanding of project scope and required services before Commissioning kickoff.
- Review existing protection schemes in the subject area to incorporate into new design, as required. Special areas of focus are anti-islanding schemes, generator intertie settings, SPS schemes, etc. (anything outside of normal). Prior to testing kickoff, the ST&CM shall be aware of how existing schemes work today before making modifications during outages, construction and/or testing.
- Ensure revision of the relay settings, logic diagrams (including Goose messaging diagrams), operational descriptions and protection schemes by the Commissioning Engineers prior to commissioning work with associated equipment. Coordinate with SP&C 3-7 ENGINEER and OWNER as needed for modifications as a result of the review process.
- Development of Commissioning Plan

- Development of Commissioning Forms to document test results. Develop detailed commissioning documentation needed to prepare for, execute, validate and record all commissioning results.
- Development of Commissioning Outage & Energization Plan
- Work with the Commissioning Engineer to ensure proper Commissioning of all Protection & Control Settings and Systems, Automation & Integration Settings and Systems and Network & Security Settings and Systems
- Complete functional testing of the entire system to ensure operation per the design of all equipment and associated protection, control, automation, integration, network, cyber security and SCADA functions.
- Fill out test certification sheets as they apply to the work.
- Perform testing on secondary, AC, and DC electrical systems.
- Perform full functional, phasing tests to ensure the proper operation of all low voltage systems. Validate tests and provide enough overlap with successful results.
- Identify and support troubleshooting Network or Serial communication issues.
- Manage and coordinate on-site resources including commissioning team, construction contractors and others.
- Provide progress reports, projections, and schedule updates to Owner.
- Develop risk mitigation plans, as required, to reduce the chance of incidental operations or safety risks to the system and personnel.
- Establish plans for temporary wiring or relay settings as required. Track, identify, test, and restore any temporary configurations as part of the project.
- Manage on site drawing packages, logic diagrams, or other documents with red and green markups, commissioning notes, highlights and all other as-built conditions.
- Provide substation integration coordination and commissioning support for A&I engineering contractor during commissioning process.
- Troubleshoot integration platform components during commissioning process.
- Review and interpret manufacturers drawings, instruction manuals, and specifications to ensure proper implementation on site.
- Identify and perform corrective action for any minor discrepancies discovered during testing and commissioning process. Document and notify responsible parties as needed.
- Identify any major discrepancies and bring to the attention of OWNER, SP&C 1-2 ENGINEER and SP&C 3-7 ENGINEER responsible to determine corrective course of action.
- Review and provide comments to the Outage Sequence Plan during construction and commissioning process.
- Coordinate with OWNER for outage applications, switching requirements and resource alignment to meet the project schedule.
- Consolidate all test results, forms, key sheets and pertinent documentation into the Final Commissioning Report and provide to OWNER for review and approval.
- Populate asset information into OWNER provided electronic files and/or databases.
- Provide all final markups of field documents to be incorporated in the As-Built revision by the responsible contractor(s), i.e. SP&C 1-2 ENGINEER and SP&C 3-7 ENGINEER. Ensure a completed closeout package is provided for each item in the Bid Proposal Form and referenced in this document.

- Provide all as-left native electronic files to be updated by the SP&C 3-7 ENGINEER and become the record files delivered to OWNER.
- Participate and help support the close out of all construction punch list items and energization audit checklist items.
- Assist OWNER with training its own resources on the proper operation of the equipment and systems or modifications within the project scope.
- Training, project management and other additional services as noted in this RFP
- Development of PSMP Functional Forms for PRC Compliance (on RG&E and NYSEG sites only)
 - Work with the Above Grade Contractor and Primary equipment manufacturers/installers to ensure proper testing of the HV equipment.
 - Ensure that the most updated version of the AVANGRID Component Test Procedures as well as equipment manufacturer's procedures are used in the Project and that those are followed at all times.
 - Ensure that the Component Testing Reports are provided to and approved by the AVANGRID Substation Maintenance Department.
 - Work with the Above Grade Contractor to ensure that wiring verification (also referred to as Point to Point wiring checks) are complete and documented
 - Ensure compliance with applicable regulations like NPCC (Directory 11), NERC (PRC2, PRC 5), etc. as well as AVANGRID Testing & Commissioning requirements.

4. Technical Support During Construction

The Commissioning Manager supports field installation and testing crews with technical experts. A Commissioning Manager is expected to spend a portion of his time on site during the installation of the equipment, prior to testing, in order to be readily available to answer questions in support of timely answers.

5. Test Lead

The Commissioning Manager is considered the Test Lead on any construction job. Although not expected to directly perform any test themselves, all tests and measurements are under the Commissioning Managers direction (whether present or not at the time of the test) and require his/her approval before considered complete.

6. Field Modifications

The Commissioning Manager often initiates minor to moderate design additions and changes as a result of discovered design errors or gaps in the prepared engineering package. In these cases the Commissioning Manager directs field crews in these modifications and ensures that marked-up prints are sent in for revision (as-built).

7. Work Verification

The Commissioning Manager, as an independent technical resource from the design, testing, and construction groups and is responsible to challenge all aspects of the substations design and construction in order to discover any mistakes and make sure that they are corrected before the new substation or modification to an existing substation goes into service.

8. Job Completion

The Commissioning Manager is responsible for determining when a new substation or new/modified equipment in an existing modified substation is ready for energization and when any new equipment is fully functional and ready to be turned over to the appropriate dispatch organization for use.

9. Project Deliverables

The ST&CM must ensure the following deliverables are provided after commissioning:

- Point to Point wiring verification sheets
- Component Test Protocols
- As-left Relay settings
- As-left Relay test plans
- As-left Relay Logic diagrams
- As-left Relay GOOSE interconnection diagrams
- As-left network configuration files
- As-left IED data maps
- As-left SCADA data maps
- Highlighted and marked up substation prints
- PSMP forms (if applicable)
- Weekly Commissioning Report
- Substation Asset keysheets

10. Skills/Abilities:

- Maintains knowledge of leading-edge techniques or technology through participation in professional associations.
- Able to explain difficult concepts and influence others to change.
- Able to communicate orally or in writing to regulatory and/or public entities.
- Self-directed individual that is focused on achieving desired results.
- Proven oral and written communications skills.
- Must be able to multitask.
- Proven supervisory skills based on past work history.
- Strong interpersonal skills with a strong customer service orientation.
- Must be able and willing to be E-STAR / CONVEX (switching and tagging) trained

• Technical Skills/Competencies

- Theoretical Engineering knowledge (Competent/Advanced) - Planning, Operations and Engineering Design, Analytic, modeling & Calculation, understanding the business model; Global View of the Business (Values cross-functional collaboration, understands importance of growing knowledge and developing relationships and links across the organization)
- Practical engineering experience/application (Competent/Advanced) - Planning, Operations and Engineering Design, Construction, (e.g. field experience, standardization "Perform economic analyses of engineering alternatives, develop business cases and defend in front of stakeholders.")
- Engineering documentation (Competent) – Ability to adequately document and interpret engineering documentation
- Ability to review and approve engineering work done by others (Competent) to ensure compliance with company standards, specifications, and contract requirements

- Knowledge of Regulatory and Compliance Environment (Competent) – Local, State and Federal Regulatory Standards and requirements
- Functional/job/business specific Competencies:
 - Computer skills
 - Microsoft Office Products
 - Aspen Oneliner
 - Doble Protection Suite and 61850 Test
 - Wireshark
 - NMap
 - Cimplicity
 - Networking and Firewalls
 - Gateways and RTUs
 - RTAC/SMP
 - Database knowledge
 - Familiarity with the following protocols
 - DNP protocol
 - MMS protocol
 - Modbus protocol

11. Work Experience

Must have a BS/BA degree in an engineering discipline from an ABET (or equivalent) accredited college/university, and 5 years' experience in the following areas:

- Construction, maintenance and testing of electrical equipment
- Relay protection and control systems
- Start-up and commissioning of electrical equipment and systems
- Electrical Field engineering
- Arc Flash safety training
- Troubleshooting of electrical equipment or systems.
- SCADA and communication systems

Specialized advanced training is also required (e.g. PTI, WPI, ECNE PUI, a graduate level engineering degree).

12. Coordination with AVANGRID and Owners Engineering Team

- The ST&CM will interface with AVANGRID Substation Operations to schedule system protection turndowns and control scheme blocking to create safe and isolated work areas necessary for contract electricians to perform removals and installs while keeping in service those transmission and distribution circuits that can remain in service. The ST&CM will also interface with AVANGRID Substation Operations to schedule system protection turn-ups and control scheme un-blocking to restore their functionality.
- The ST&CM will interface with ECC to schedule outages and coordinate de-energization and re-energization sequences.
- The ST&CM will interface with the SCADA group to ensure enough resources are available to support the Commissioning Agent during SCADA testing. Also, the Commissioning Agent assists with SCADA testing as necessary to prove any RTU control logic is functional.
- The ST&CM will review contractor monthly accruals and invoices in conjunction with the Project Manager.

- The ST&CM will review change orders in conjunction with the Project Manager
- ST&CM will conduct a lessons-learned meeting with the project team to capture feedback on the process to incorporate into the overall program
- ST&CM will conduct a meeting with Owner and Project Manager to review and document the Contractor's performance on the project

13. Coordination with other Site Contractors

- The ST&CM will interface with site contractors, station electricians and installers to ensure construction activities occur in a logical sequenced plan. This includes attending on-site and off-site construction meetings.

14. ST&CM Coordination with Commissioning Agent

- Conduct Testing and Commissioning kick-off meeting
- Direct and coordinate equipment isolation, system protection turndowns and control scheme blocking to create safe and isolated work areas
- Witness and coordinate controls functional testing, trouble shoot functional control problems, provide recommended corrections and obtain approval for any design changes
- Witness and coordinate SCADA functional testing, trouble shoot functional control problems, provide recommended corrections and obtain approval for any design changes

15. ST&CM Documents Reviewed from Commissioning Agent

The ST&CM will review documentation provided by the Commissioning Engineer (CE) the required documentation necessary to ensure correctness and completeness of commissioning activities including:

- Resource Loaded Schedule
- Commissioning Plan
- Outage Sequence Plan
- Risk Mitigation Plan
- Weekly Work Plan
- Daily Work Plan
- Testing and Commissioning Procedures (The ST&CM will assist the CE with Testing and Commissioning Procedures, providing go-by's or assisting in writing them to ensure AVANGRID is provided with a complete history of commissioning activities and test results)
- Testing and Commissioning Certification Sheets
- Component Testing Data
- Daily Work Report
- Weekly Commissioning Report
- Commissioning Report Draft
- Commissioning Report Final
- As-built drawings (The ST&CM will assist Commissioning Agent with maintaining an as-built set of construction drawings.)

4. **Lead Test & Commissioning Manager (LT&CM) Scope of Work**

1. General summary

This position is responsible for the oversight and/or management of the testing, and commissioning of a single complex or multiple smaller scope high voltage substation

projects. The role will provide testing and technical support for both greenfield and brownfield substation projects.

For complex multi stage brownfield work where the Commissioning Manager will be required to be on site daily he will serve a dual role as the Construction Manager and Commissioning Manager the additional roles as defined in the Construction Managers role will also apply. For smaller scope projects the Commissioning Manager will provide support to the Construction Manager and witness required tests on equipment and protection devices.

The LT&CM has the responsibility for the overall effort required to energize the project. She/he manages the pre-commissioning, commissioning, primary equipment (also referred to as HV Apparatus or Component), P&C equipment and systems testing, A&I equipment and systems testing, coordination for the testing of the Network and Security System, substation functional testing and energization activities.

The LT&CM must be familiarized with the AVANGRID T&C Philosophy document and procedures.

2. Safety

The Commissioning Manager is responsible for performing his duties and responsibilities in a safe manner. This includes wearing proper PPE (hardhat, safety glasses, steel-toed shoes, FR clothing), actively participating in job briefings (daily and whenever a change in the work occurs including crew change, condition change, etc.), having a questioning attitude and keeping vigil for the safety of himself/herself and those around him/her.

3. LT&CM main functions and responsibilities

- Review detailed engineering drawings to gain understanding of project scope and required services before Commissioning kickoff.
- Review existing protection schemes in the subject area to incorporate into new design, as required. Special areas of focus are anti-islanding schemes, generator intertie settings, SPS schemes, etc. (anything outside of normal). Prior to testing kickoff, the ST&CM shall be aware of how existing schemes work today before making modifications during outages, construction and/or testing.
- Ensure revision of the relay settings, logic diagrams (including Goose messaging diagrams), operational descriptions and protection schemes by the Commissioning Engineers prior to commissioning work with associated equipment. Coordinate with SP&C 3-7 ENGINEER and OWNER as needed for modifications as a result of the review process.
- Development of Commissioning Plan
- Development of Commissioning Forms to document test results. Develop detailed commissioning documentation needed to prepare for, execute, validate and record all commissioning results.
- Development of Commissioning Outage & Energization Plan
- Work with the Commissioning Engineer to ensure proper Commissioning of all Protection & Control Settings and Systems, Automation & Integration Settings and Systems and Network & Security Settings and Systems

- Complete functional testing of the entire system to ensure operation per the design of all equipment and associated protection, control, automation, integration, network, cyber security and SCADA functions.
- Fill out test certification sheets as they apply to the work.
- Perform testing on secondary, AC, and DC electrical systems.
- Perform full functional, phasing tests to ensure the proper operation of all low voltage systems. Validate tests and provide enough overlap with successful results.
- Identify and support troubleshooting Network or Serial communication issues.
- Manage and coordinate on-site resources including commissioning team, construction contractors and others.
- Provide progress reports, projections, and schedule updates to Owner.
- Develop risk mitigation plans, as required, to reduce the chance of incidental operations or safety risks to the system and personnel.
- Establish plans for temporary wiring or relay settings as required. Track, identify, test, and restore any temporary configurations as part of the project.
- Manage on site drawing packages, logic diagrams, or other documents with red and green markups, commissioning notes, highlights and all other as-built conditions.
- Provide substation integration coordination and commissioning support for A&I engineering contractor during commissioning process.
- Troubleshoot integration platform components during commissioning process.
- Review and interpret manufacturers drawings, instruction manuals, and specifications to ensure proper implementation on site.
- Identify and perform corrective action for any minor discrepancies discovered during testing and commissioning process. Document and notify responsible parties as needed.
- Identify any major discrepancies and bring to the attention of OWNER, SP&C 1-2 ENGINEER and SP&C 3-7 ENGINEER responsible to determine corrective course of action.
- Review and provide comments to the Outage Sequence Plan during construction and commissioning process.
- Coordinate with OWNER for outage applications, switching requirements and resource alignment to meet the project schedule.
- Consolidate all test results, forms, key sheets and pertinent documentation into the Final Commissioning Report and provide to OWNER for review and approval.
- Populate asset information into OWNER provided electronic files and/or databases.
- Provide all final markups of field documents to be incorporated in the As-Built revision by the responsible contractor(s), i.e. SP&C 1-2 ENGINEER and SP&C 3-7 ENGINEER. Ensure a completed closeout package is provided for each item in the Bid Proposal Form and referenced in this document.
- Provide all as-left native electronic files to be updated by the SP&C 3-7 ENGINEER and become the record files delivered to OWNER.
- Participate and help support the close out of all construction punch list items and energization audit checklist items.
- Assist OWNER with training its own resources on the proper operation of the equipment and systems or modifications within the project scope.
- Training, project management and other additional services as noted in this RFP

- Development of PSMP Functional Forms for PRC Compliance (on RG&E and NYSEG sites only)

- Work with the Above Grade Contractor and Primary equipment manufacturers/installers to ensure proper testing of the HV equipment.
- Ensure that the most updated version of the AVANGRID Component Test Procedures as well as equipment manufacturer's procedures are used in the Project and that those are followed at all times.
- Ensure that the Component Testing Reports are provided to and approved by the AVANGRID Substation Maintenance Department.
- Work with the Above Grade Contractor to ensure that wiring verification (also referred to as Point to Point wiring checks) are complete and documented
- Ensure compliance with applicable regulations like NPCC (Directory 11), NERC (PRC2, PRC 5), etc. as well as AVANGRID Testing & Commissioning requirements.

4. Technical Support during Construction

The Commissioning Manager supports field installation and testing crews with technical experts. A Commissioning Manager is expected to spend a portion of his time on site during the installation of the equipment, prior to testing, in order to be readily available to answer questions in support of timely answers.

5. Test Lead

The Commissioning Manager is considered the Test Lead on any construction job. Although not expected to directly perform any test themselves, all tests and measurements are under the Commissioning Managers direction (whether present or not at the time of the test) and require his/her approval before considered complete.

6. Field Modifications

The Commissioning Manager often initiates minor to moderate design additions and changes as a result of discovered design errors or gaps in the prepared engineering package. In these cases the Commissioning Manager directs field crews in these modifications and ensures that marked-up prints are sent in for revision (as-built).

7. Work Verification

The Commissioning Manager, as an independent technical resource from the design, testing, and construction groups and is responsible to challenge all aspects of the substations design and construction in order to discover any mistakes and make sure that they are corrected before the new substation or modification to an existing substation goes into service.

8. Job Completion

The Commissioning Manager is responsible for determining when a new substation or new/modified equipment in an existing modified substation is ready for energization and when any new equipment is fully functional and ready to be turned over to the appropriate dispatch organization for use.

9. Project Deliverables

The LT&CM must ensure the following deliverables are provided after commissioning:

- Point to Point wiring verification sheets
- Component Test Protocols
- As-left Relay settings

- As-left Relay test plans
- As-left Relay Logic diagrams
- As-left Relay GOOSE interconnection diagrams
- As-left network configuration files
- As-left IED data maps
- As-left SCADA data maps
- Highlighted and marked up substation prints
- PSMP forms (if applicable)
- Weekly Commissioning Report
- Substation Asset keysheets

10. Skills/Abilities:

- Maintains knowledge of leading-edge techniques or technology through participation in professional associations.
- Able to explain difficult concepts and influence others to change.
- Able to communicate orally or in writing to regulatory and/or public entities.
- Self-directed individual that is focused on achieving desired results.
- Proven oral and written communications skills.
- Must be able to multitask.
- Proven supervisory skills based on past work history.
- Strong interpersonal skills with a strong customer service orientation.
- Must be able and willing to be E-STAR / CONVEX (switching and tagging) trained

• Technical Skills/Competencies

- Theoretical Engineering knowledge (Advanced) - Planning, Operations and Engineering Design, Analytic, modeling & Calculation, understanding the business model; Global View of the Business (Values cross-functional collaboration, understands importance of growing knowledge and developing relationships and links across the organization)
 - Practical engineering experience/application (Advanced) - Planning, Operations and Engineering Design, Construction, (e.g. field experience, standardization "Perform economic analyses of engineering alternatives, develop business cases and defend in front of stakeholders.")
 - Engineering documentation (Advanced) – Ability to adequately document and interpret engineering documentation
 - Ability to review and approve engineering work done by others (Advanced) to ensure compliance with company standards, specifications, and contract requirements
 - Knowledge of Regulatory and Compliance Environment (Competent) – Local, State and Federal Regulatory Standards and requirements
- Functional/job/business specific Competencies:
 - Computer skills
 - Microsoft Office Products
 - Aspen Oneliner
 - Doble Protection Suite and 61850 Test

- Wireshark
- NMap
- Cimplicity
- Networking and Firewalls
- Gateways and RTUs
 - RTAC/SMP
- Database knowledge
- Familiarity with the following protocols
 - DNP protocol
 - MMS protocol

11. Work Experience

Must have a BS/BA degree in an engineering discipline from an ABET (or equivalent) accredited college/university, and 10 years' experience in the following areas:

- Construction, maintenance and testing of electrical equipment
- Relay protection and control systems
- Start-up and commissioning of electrical equipment and systems
- Electrical Field engineering
- Arc Flash safety training
- Troubleshooting of electrical equipment or systems.
- SCADA and communication systems

Specialized advanced training is also required (e.g. PTI, WPI, ECNE PUI, a graduate level engineering degree).

12. Coordination with AVANGRID and Owners Engineering Team

- The LT&CM will interface with AVANGRID Substation Operations to schedule system protection turndowns and control scheme blocking to create safe and isolated work areas necessary for contract electricians to perform removals and installs while keeping in service those transmission and distribution circuits that can remain in service. The LT&CM will also interface with AVANGRID Substation Operations to schedule system protection turn-ups and control scheme un-blocking to restore their functionality.
- The LT&CM will interface with ECC to schedule outages and coordinate de-energization and re-energization sequences.
- The LT&CM will interface with the SCADA group to ensure enough resources are available to support the Commissioning Agent during SCADA testing. Also, the Commissioning Agent assists with SCADA testing as necessary to prove any RTU control logic is functional.
- The LT&CM will review contractor monthly accruals and invoices in conjunction with the Project Manager.
- The LT&CM will review change orders in conjunction with the Project Manager
- LT&CM will conduct a lessons-learned meeting with the project team to capture feedback on the process to incorporate into the overall program
- LT&CM will conduct a meeting with Owner and Project Manager to review and document the Contractor's performance on the project

13. Coordination with other Site Contractors

- The LT&CM will interface with site contractors, station electricians and installers to ensure construction activities occur in a logical sequenced plan. This includes attending on-site and off-site construction meetings.

14. LT&CM Coordination with Commissioning Agent

- Conduct Testing and Commissioning kick-off meeting
- Direct and coordinate equipment isolation, system protection turndowns and control scheme blocking to create safe and isolated work areas
- Witness and coordinate controls functional testing, trouble shoot functional control problems, provide recommended corrections and obtain approval for any design changes
- Witness and coordinate SCADA functional testing, trouble shoot functional control problems, provide recommended corrections and obtain approval for any design changes

15. LT&CM Documents Reviewed from Commissioning Agent

The LT&CM will review documentation provided by the Commissioning Engineer (CE) the required documentation necessary to ensure correctness and completeness of commissioning activities including:

- Resource Loaded Schedule
- Commissioning Plan
- Outage Sequence Plan
- Risk Mitigation Plan
- Weekly Work Plan
- Daily Work Plan
- Testing and Commissioning Procedures (The LT&CM will assist the CE with Testing and Commissioning Procedures, providing go-by's or assisting in writing them to ensure AVANGRID is provided with a complete history of commissioning activities and test results)
- Testing and Commissioning Certification Sheets
- Component Testing Data
- Daily Work Report
- Weekly Commissioning Report
- Commissioning Report Draft
- Commissioning Report Final
- As-built drawings (The LT&CM will assist Commissioning Agent with maintaining an as-built set of construction drawings.)

5. **Environmental Inspector**

1. General Summary

The Environmental Inspector (EI) shall monitor and advise the Owner and the Construction Contractor(s) on construction of specific projects to ensure compliance with all laws and regulations, approved plans, permit conditions, and environmental best management practices, including, as appropriate: erosion and sedimentation control, construction mat placement, stormwater management, wetlands protection, rare plant species protection, stream buffer protection, and fugitive dust monitoring.

The EI shall ensure adequate environmental controls on the Project(s).

2. Environmental Inspector Responsibilities

The EI shall conduct the following Work on the Project(s):

- Review with, and train as necessary, construction and erosion control crews in erosion control, mat usage, placement and maintenance, and permit compliance.
- Notify the Field Construction Manager (FCM) of each day the EI intends to visit the Project Site, and what specific areas will be inspected.
- Utilize AVANGRID's Environmental Guidelines, as well as all permits/licenses, drawings, and plans for the Project, as reference to ensure that all appropriate erosion and sedimentation controls are implemented proactively, to prevent erosion and sedimentation.
- Establish high standards of environmental performance early on in the Project by communicating frequently with the FCM and other key Project/Construction Contractor personnel as to what is expected, what is working well and what is not working well. Proactively advise on all environmental aspects of the project, including the planning and implementation of work site access and all permit/license and regulatory compliance.
- Advise the construction and erosion control crews on the efficient use of matting and erosion control devices to ensure they are not unnecessarily overused on the Project to negatively affect cost.
- Immediately notify the FCM when the EI becomes aware of either practical opportunities to improve environmental protection, or of potential problems involving erosion and sedimentation control, construction mat use, stormwater management, wetland protection, wetland damage restoration, rare plant species protection, or stream buffers. Specifically:
 - If a Maine Department of Environmental Protection (MDEP) third-party inspector (3PI) has been assigned to a project, use 3PI reports as the basis/template for all EI reports, and respond to each 3PI recommendation by adding comments and follow-up actions after each 3PI recommendation.
 - Provide guidance to the Construction Contractor(s) to correct any erosion control installation or maintenance deficiencies noted in 3PI and/or EI reports, in a timely manner.
 - Provide written documentation of implementation status of all 3PI and/or EI recommended environmental controls.
 - Provide, within forty-eight (48) hours of all written 3PI reports, a written status report to include: a summary of all 3PI recommendations; concurrence with all 3PI recommendations with which EI agrees; and discussion of any 3PI recommendations with which EI disagrees.
 - Confirm in writing the adequate installation and maintenance of all erosion controls in each EI report.
 - Note and highlight any uncorrected erosion control deficiencies, including explanations, in each EI report.

- If EI believes that 3PI field comments conflict with 3PI written report or recommendations, notify the Owner, request written clarification from 3PI, and request that MDEP be copied on this clarification.
 - Discuss and resolve any inconsistent or contradictory 3PI
- In case of NY State, The EI must hold:
 - Before commencing construction activity, the owner or operator of a construction project that will involve soil disturbance of one or more acres must obtain coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002)
 - Under the SPDES General Permit for Stormwater Discharges from Construction Activity, certain contractors (Trained Contractor) and certain Qualified Inspectors are required to complete 4 hours of Department endorsed training in the principles and practices of erosion and sediment control (E&SC) every 3 years.
- If the EI observes existing or potential problems in any area noted above, they shall not leave the work site without reporting the observation, as well as the recommended remedy, to the FCM. If the FCM is not available in this situation, the EI will communicate the problem and remedy directly to the on-site foreman or construction supervisor.
- Upload reports of EI's observations every week to ProjectWise. Reports shall have the following content:
 - Location of the areas inspected by the EI,
 - Description of the environmental compliance practices observed in the inspection,
 - Description on any areas of concern or non-compliance, as well as any measures to be undertaken by the Construction Contractor(s) to remedy the issues,
 - Photos of the areas inspected by the EI.
- Before Construction activities begin on the Project, the EI shall sign off on the form in Appendix D that the EI understands the requirements of the Project Specifications to be able to enforce the Specification requirements on the Project Site with regard to environmental practices.
- Inspection Frequency
- After the initial construction start-up phase, the EI inspections shall average two (2) days per week or less or as often as conditions (e.g., extent of disturbed soil areas; number of active work sites; stage of construction; season; and significant precipitation events) may require.
- It is anticipated that the EI shall spend more time on the Project site in the early stages and less time later on as expectations are better understood and followed, and the Contractor(s) has demonstrated its environmental proficiency.
- The EI shall track weather forecasts and plan accordingly to inspect areas of the Project site most vulnerable to erosion or sedimentation, before and after significant precipitation events. The EI shall use their judgment as to whether frozen precipitation events pose the risk of erosion or sedimentation.

Scope of Services for FCM Electric Projects and Testing & Commissioning (All OpCos)

Scope of Services for FCM Networks Electric Operations and Maintenance QAQC (All OpCos)

1. Field Construction Coordinator (FCC)

The specification is intended to provide qualification requirements and specification requirements for routine activities that will be quoted with unit rates and hourly rates will be utilized for non-routine and other activities that are difficult to fully specify to utilize unit rates.

Field Construction Coordinator (FCC) Qualification Requirements

- Work in a team environment.
- Good working knowledge through actual use of MS Office products including Excel, Access, Word and MS Project.
- Basic knowledge of various electric utility assets and equipment.
- Knowledge of SAP is a plus.
- Ability to communicate complex ideas to diverse audiences both in writing and verbally. Ability to interact effectively to other groups within the Company organization.
- 5 years minimum electric utility experience.
- Must have extensive knowledge in construction and maintenance of Utility equipment, including but not limited to transmission and distribution systems, underground networks and substations.
- Extensive knowledge of electric utility industry materials and equipment is a must.
- Able to assess the health of Utility assets and equipment as they relate to the utility inspection program.
- Capable of moderate to extensive travel, with some overnight stays, to various locations within RGE/NYSEG franchise area.
- Able to physically walk distribution lines or remote transmission right of ways.
- Experience in interaction with contractors and assessing their work.
- Perform QA/QC and Program Management duties as directed by AVANGRID

Conflict of Interest Statement

- Any vendor providing the contract services for a specific program (example Aluminum Base Insulator Replacement) are ineligible to also provide the QA/QC/Program Management/FCC services since this would be a conflict of interest.

FCC Contractor Job Start Up Meeting – PID #1,#2,#3,#4

Task: Complete contractor job start meetings with each NYSEG & RGE Division Line Operations where pole groundline inspect and treat, wood pole restoration work, steel pole & tower inspection & repair, aluminum base bell insulator replacement is being performed by Contractor. Coordinate with NYSEG & RGE Division Line Operations office to conduct a job start meeting at each Service Center office to include the contractor inspector and their field supervision personnel.

- a. identify the NYSEG & RGE Division representative responsible and ensure exchange of phone number contacts with the contractor crews as needed.
- b. daily crew locations callins and calloffs how they will be managed and any preference by the Division Line Operations

- c. Reporting of hazardous conditions same day found to Toll Free Hotline (ECC) NYSEG 877-254-7795, 877-254-7796. RGE 585-724-8916. Policy is that contractor foremen are to call in to this dispatch center hotline to get a service notification number issued immediately.
- d. Check copies of the NYS pesticide applicators license from contractor foremen
- e. provide copies of the AVANGRID technical specification for the work to any that need these and provide a response to any technical questions raised.
- f. prompt a discussion to review any known property owner issues that the Local personnel are aware of including required notifications to authorities/prisons/ etc. that are required by local protocols that the Line Operations is aware of to perform the work in the ROW.
- g. form is provided below

NYSEG Startup of Inspection Contractor Crews

Date: _____ Division: _____

Foreman: _____ Company _____

Phone: _____

Supervisor: _____

Phone: _____

NYSEG Division Representative

Name: _____ Title: _____

Phone: _____

☐ **Daily locations and call ins/call offs to NYSEG Division Representative:**

☐ **Report Hazardous Conditions: Same day found**
Toll-free Emerg Hotline (ECC) call-in number: NYSEG: 877-254-7795 AND
877-254-7796

Contractor foremen are to call in to this dispatch center hotline to get a service notification number issued immediately. Then these dispatch center personnel make the call to the Line Dept Supervisor on duty to take whatever review/action/response is appropriate

☐ **Copy of Foreman Pesticide Applicators License**

Page Break

Field Construction Coordinator(FCC) QA/QC – WPIT Restoration – PID #5

Task: Perform quality assurance checks in the field for contractor installations of C-Trusses to Transmission and Distribution wood pole restoration of reject wood poles in each of the AVANGRID service areas in NY where work is conducted.

- a. persons performing quality control checks on wood pole c-truss installations need to become familiar with the Technical Specifications for Wood Pole Reject determinations and Restorations for AVANGRID. Special attention should be directed to the sections on C-Truss installations.
- b. identify up to five wood poles at random from the previous two weeks work interval according the received contractors data and reported activity. At least two of these poles should be in a fairly isolated area away from road crossings, towns, etc., if possible.
- c. Verify evidence of crew re-inspections according the criteria in the Specifications tat wood poles is indeed a candidate for C-Truss installations. Pole should indicate signs of boring inspections at levels of banding application sites on the pole. Hammer sounding (hammer marks on pole) is not adequate. Inspection holes must be plugged. Re-drill out any inspection holes with the contractor and have them re-assess candidacy.
- d. Verify evidence of crew applications of remedial treatment preservatives at the groundline according to the criteria in the Specifications for wood poles.
- e. Verify evidence of workmanship to application of the C-Truss
- f. form is provided below

Confidential

C ... commendable
 S ... satisfactory
 I ... improvement needed
 U ... unsatisfactory

Pole Restoration Quality Control Check

Customer:	
Job Number:	
Date of QC:	
Type of QC:	
☐ Level I ☐ Level II ☐ HQC	

Foreman:

Supervisor:

Map # / Town	C	S	I	U	C	S	I	U	C	S	I	U	C	S	I	U	C	S	I	U
Pole Number(s)																				
Date of Work																				
Visual Inspection																				
Pole Evaluation																				
Boring (depth, loc)																				
Treatment																				
U.G. Locate																				
Attachments																				
Steps																				
Pavement																				
Backfilling																				
Proper Tagging																				
Clean Up																				
Mapwork																				
Truss Size																				
Truss Orientation																				
Truss Depth & Ht.																				
Banding																				
Seal Application																				
Cover Cap																				
Paint / Filling																				

Comments:

☐ Corrective Action Required☐ Corrective Action Completed

Date Completed:

Verified By:

Foreman:

Crew Member:

Crew Member:

Supervisor:

Crew Member:

Crew Member:

#DIV/0!

QC Rating

☐ I attest this QC was reviewed with crew

Rating Override

Construction Coordinator(FCC) QA/QC – WPIT – PID #6

Task: Perform quality assurance checks in the field on wood pole treatment contractor crews in each of the AVANGRID service areas in NY where work is conducted.

- a. The quality control checks are performed on contractor crews inspecting and treating wood poles in the presence of a contractor representative (supervisor or senior foreman). These checks consist of reviewing the chemical application and adherence to aspects of the Technical Specifications for Wood Pole Inspection and Treatment work. All deficiencies found in the presence of the contractor representative shall be corrected at the time of the quality control.
- b. Persons performing quality control checks on wood pole remedial treatment need to become familiar with the Technical Specifications for Wood Pole Inspection and Treatment for AVANGRID. Special attention should be directed to the sections on chemical applications.
- c. Three to five poles in the field per foreman and crew shall be checked. An acceptable interval is every two weeks of work. Identify up to five wood poles at random from the previous two weeks work interval. At least two of these poles should be in a fairly isolated area away from road crossings, towns, etc., if possible.
- d. Verify evidence of thorough inspection by crew foreman. Pole should indicate signs of hammer sounding (hammer marks on pole). Inspection plug will most likely be near a check. Inspection hole should extend to the pole center. Replug any drilled out plugs
- e. At least one pole shall be completely re-excavated by contractor crews and the groundline wrap removed. Paste thickness shall be checked and the pole retreated, rewrapped and backfilled. Poles that are not excavated shall have their depth of excavation checked with a probe
- f. Check depth and pattern of holes according to the fumigant mfg. current label specifications. Bore out or otherwise remove fume plug to check depth with probe. Holes should exhibit signs of crystalline fumigant. Fume holes should not penetrate into decay pockets or voids. Replug hole. Check for fumigant treatment tag.
- g. Poles that have been treated for carpenter ants should have at least two or three treatment application holes that intersect ant galleries. Drill plugs out and with a probe determine if the galleries were intersected. Check for ant treatment tag.
- h. Check the field sheet closely to see that all information is recorded accurately, i.e., brand, pole top and crossarm condition, pole circumference at groundline, etc. (close attention should be directed to accuracy of pole numbering used in data reporting).
- i. Report the type and extent of any deficiencies along with photo labeled with Line and pole number or GPS coordinate. Form is provided below. Submit each report to the AVANGRID representative along with any corrections to deficiencies

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Metrics used to evaluate contractor pole inspection and treatment crews

	OK	DEFICIENT
Data Collection	Check the field report closely to see that all information is recorded accurately, i.e., brand, pole top and crossarm condition, pole circumference at groundline, etc. (close attention should be directed to accuracy of pole numbering used in data reporting). Check the data reported by the foreman.	data not collected properly, measured pole circumference, shell depth of enclosed pockets of decay, line of lead orientations, etc.
Reported Damage	Check the data reported by the foreman. Auditor can reproduce measurements within one inch	Missed defects observed during QC on the report. Missed identifying rejected wood poles. Missed measurements or measurements could not be verified during Field audit
Hammer Sound	Pole should indicate signs of hammer sounding (hammer marks on pole).	No evidence of sounding or perhaps only sounding one or two sides of the pole. No attempts at sounding low into the groundline zone
Bored by check	Inspection plug: Verify evidence of thorough inspection by crew foreman.	Inspection plug will most likely be near a check. Inspection hole should extend to the pole center. Replug any drilled out plugs.
Noted defects	Check the data reported by the foreman	Missed defects observed during QC on the report
Chipping & Shaving	groundline surface has been chipped to remove decayed wood, should be left with a smooth surface and covered with groundline preservative paste.	groundline surface has been chipped to remove decayed wood, leaving irregular surfaces. Pole was chipped but some decay was left. Chipped area is left rough or with stringy wood remaining. Over chipping has removed sound wood unnecessarily. Wood chippings left in excavated hole.
Workscope Compliance	Good knowledge and reference to Specification. Reporting of hazardous conditions	Missed sections of the work Specification. Missed or ignored hazardous conditions, and or/ neglected to follow protocol of same

	same day found to Toll Free Hotline (ECC) NYSEG 877-254-7795, 877-254-7796. Policy is that contractor foremen are to call in to this dispatch center hotline to get a service notification number issued immediately.	day notifications to the ECC Hotline established the the job start meetings.
Excavation depth	Poles that are not excavated shall have their depth of excavation checked with a probe	Excavation holes not deep enough. The excavation hole should extend to 18" below groundline. Check by pushing a probe into soft earth around pole and measuring depth or measure after excavation.
Paste coverage	For Groundline Paste application poles shall be completely re-excavated by contractor crews and the groundline wrap removed. Paste thickness shall be checked and the pole retreated, rewrapped and backfilled.	Groundline paste is missing or obviously under applied, Sloppy application with paste extending above paper. Treated pole surface not completely wrapped. Groundline preservative barrier does not completely go around pole. Some of the preservative material is exposed. Treated pole surface from 18 inches below, to 3 inches above groundline is not covered with groundline preservative paste. Often this happens when the groundline surface has been chipped to remove decayed wood, leaving irregular surfaces.
Backfills	The paper wrap should be covered over with soil in a mound.	Backfill of excavated poles is inadequately done. No depression should be left around a pole. Tamping of backfill shall be performed at a minimum by walking around pole. Backfill sunken below GL or yard sod buried and not replaced on top are deficient.
Drill pattern – Fume holes	Hole Location. Holes should start at groundline near deepest check and spiral around the pole approx. 60 inches apart and each	Hole depths not adequate. Bore through plugs with a drill and use a probe to measure hole depths. Often, highest hole is the shortest in depth because of difficulty for some in handling heavy fume drill at that height.

	hole increasing approx. 6 inches in height.	Holes left unplugged. THIS IS A CRITICAL ERROR!! The chemical applied will diffuse out the hole, water and fungal spores can enter the pole inside the treated shell. We may be damaging the poles if holes are left unplugged. Unplugged holes shall be retreated and plugged. Broken bits left imbedded in pole. This is another critical error. Water and fungal spores can enter the pole interior if the bit is not removed and the hole treated and plugged. Not following drill pattern. Improper drilling will not provide a good distribution of chemicals throughout the inside of pole. This problem usually is a good indicator of other problems, like short hole depths or unplugged holes. Minor deviations are insignificant. Drilling holes into decay pockets. Fumigant holes should not penetrate into wood that is severely decayed wood or decay voids.
Hole depth	Fume holes specified at 18 inches depth	Short hole depths
Fumigant application	Fumigant application holes: Check depth and pattern of holes according to the manufacturer's current pesticide label specifications. Bore out or otherwise remove fume plug to check	Check depth with probe. Holes should exhibit signs of white crystalline fumigant. Fume holes should not penetrate into decay pockets or voids. Replug hole. Check for fumigant treatment tag.
Plugged holes	All bored holes plugged flush with pole	Poles are not bored or bored holes are not plugged and left open. Borings exited out the back of pole and left unplugged
Internal void treatment	Internal Void treatment: Poles that have been treated for internal voids should have at least two or three treatment application holes apparent	Borings are shallow on multiple poles. Product residue evident on pole surface around treatment application plug. Insufficient number of borings to adequately apply preservative to internal void.

Ant Treatment	Ant treatment: Poles that have been treated for carpenter ants should have at least two or three treatment application holes that intersect galleries. Drill plugs out and with a probe determine if the galleries were intersected. Check for ant treatment tag.	Holes do not penetrate the galleries. At least two or three of the small diameter holes bored into the poles should intersect the galleries of the ants inside the pole. Ants not dead. If large black, or black and red ants are still moving around on the pole two weeks after treatment, or if there are piles of ant frass (sawdust) piled up at the base of checks, they probably didn't get the material into the galleries. Have them retreat the pole for ants
Applied tags	Correct tag is applied at correct height	Tagging is absent or incorrect or nail bent or tag scuffed during installation
Calls in to Division	Callins/Calloffs protocol established at the job start meetings with Divisions Line Office	Check to see the foreman are adhering to the established protocol
Other (Specify)	Poles that are less than 10 years old receive no groundline or fumigant treatment.	Treatment of poles near water bodies or within 50' of a private well with any of the three chemicals is forbidden. "Water body" is any permanent stream, pond, creek or swamp with year round running or standing water. Ditches or depressions are not water bodies. Chemical containers empty or full, left on ROW. These containers must be taken out of the area and disposed of by the contractor. Refuse or spent containers left in excavation hole and buried by crew.
Obtains permission for access	At the very least, every wood pole gets inspected and reported. <u>Any off ROW access MUST be arranged by contractor with property owners before access.</u>	Damage to ROW roads, personal property or crops. Poles skipped over. Chemical containers empty or full, or other debris, workmanship cleanliness issues left on ROW. These containers must be taken out of the area and disposed of by the contractor .

Cooperative during QC	All deficiencies found in the presence of the contractor representative shall be corrected at the time of the quality control .	Any deficiencies found should be traced back to the previous QC interval to establish any patterns attributed to a single foreman. Contractor shall provide assurance that any quality issues are resolved back to the last Field audit, and that the instances of offending foremen with an apparent pattern non-compliance have been corrected or removed from the job.
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Construction Coordinator(FCC) QA/QC – Steel Pole & Tower Groundline – PID #7

Task: Perform quality assurance checks in the field on wood pole treatment contractor crews in each of the AVANGRID service areas in NY where work is conducted.

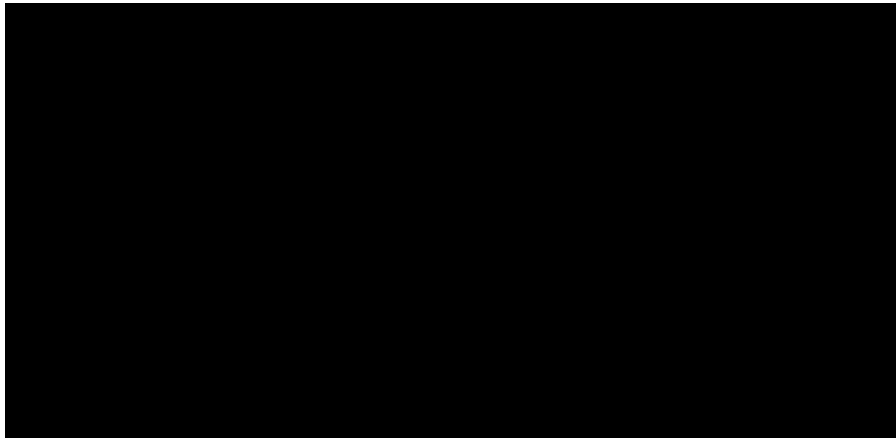
- a. The quality control checks are performed on contractor crews inspecting and treating steel poles & towers in the presence of a contractor representative (supervisor or senior foreman). These checks consist of reviewing the coating & welding application and adherence to aspects of the Technical Specifications for Steel Pole & Tower Inspection and Treatment work. All deficiencies found in the presence of the contractor representative shall be corrected at the time of the quality control.
- b. Persons performing quality control checks need to become familiar with the Technical Specifications for AVANGRID.
- c. Three to five poles or towers in the field per foreman and crew shall be checked. An acceptable interval is every two weeks of work. Identify up to five structures at random from the previous two weeks work interval. At least two of these structures should be in a fairly isolated area away from road crossings, towns, etc., if possible.
- d. Check the field sheet closely to see that all information is recorded accurately. (close attention should be directed to accuracy of pole numbering used in data reporting).
- e. Report the type and extent of any deficiencies along with photo labeled with Line and pole number or GPS coordinate. Form is provided below. Submit each report to the AVANGRID representative along with any corrections to deficiencies

QA/QC Form to be provided

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Construction Coordinator(FCC) QA/QC – Aluminum Base Bell Insulator – PID #8

Complete a pole inspection document for each pole work location. Coordinate weekly pickup of inspection pole sheets with contractor foreman to assist in report the project progress and contractor invoicing.



Additional Notes

Signatures

General Foreman

RG&T Representative

Send signed completed form into Payroll weekly for invoicing along with timesheet

2. Safety Observer

The Safety Observer role can be utilized in either gas or electric projects. Not to be used as a full-time role but used when necessary for the oversight of safety on any particular job site.

1. General Tasks

- Assist with Review and concurrence of HASP from each contractor.
- Attend or carry out safety inspection at job site prior to, during or after construction. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator.
- Provide Safety Orientation to the workers and to ensure the test is filled.
- Ensure that the visitor and/or worker is aware of the daily brief content and sign off the form.
- Ensure that visitors have an escort during the visit
- Agree with the contractor the preventive measures and the close date for the safety violations detected and monitoring with the contractor their closure. Report safety inspections to PM.

- Ensure that any accident, incident, near miss or injury is reported and investigated. Collaborate in the AVANGRID incident report.
- Propose Corrective Action reports and Preventive Action Report (CAR/PAR) to the SHEQ manager and collaborate in the implementation.
- Provide safety audit reports to Project Team.
- Ensure all OSHA and Avangrid safe work practices are applied to all work activities.

2. Minimum Requirements/Experience

- Five or more years of related experience in Construction and Maintenance of Electrical Transmission and Distribution Systems
- General knowledge of electric line work and/or substation construction.
- General knowledge of electric theory.
- Previous experience holding switching and tagging procedures for projects requiring holding markup.
- General knowledge of applicable environmental regulations governing construction: storm water pollution prevention, wetlands, stream crossing, and spill response for projects requiring environmental permit or compliance.
- Basic knowledge of industry codes governing the electric industry including NEC, NESC, and OSHA.

Certifications:

- Background Check clearance to obtain a contractor badge per IUSA Contractor Background Check policy.
- Valid Driver's License.
- First Aid/AED Training
- OSHA 30

3. **Field Construction Manager (FCM)**

The FCM, led by the Project Manager and Construction Manager coordinates, manages and supervises all construction and on-site electromechanical tasks, as well as the civil work. The FCM coordinates the schedule with the Project Manager and Construction Manager with regard to the required site progress, the resources required and their mobilization and demobilization in time, and the corrective measures necessary in order to accomplish the work as far as safety, quality, schedule and cost.

1. General Tasks

- Field Support to Fix Problems – Being Proactive
- Make notifications to open and close daily work. Check the perimeter of the substation/ROW at the beginning and end of the shift. Call Energy Control Center & Security Operation Center in case of anomalies.
- Must do Reporting – Weekly Report, Monthly Reports, site weekly minutes of meetings.
- Monitor Schedule - Look Ahead vs. PM
- Must attend the contractor's safety, environment and Quality meetings; provide a tip in the onsite meeting.
- Keep on site and updated the H&S, Environment and Quality project binder.

- FCM must be organized, must document everything to provide a good paper trail
- Work in the preparation of Final File.
- Must review contractor invoices and schedules.
- Conduct weekly project progress meeting. Request the contractor two week look ahead schedule at each weekly meeting.
- Must be always On-site whenever work is being performed (make frequent observation of contractor's activities and adherence to M&PT when in public ROW). Immediate notification to PM of any and all problems or foreseeable issues throughout construction or any complaint presented by the general public.
- Coordinate Material delivery between AVANGRID Stockroom, and Contractor.
- Inspect all project related construction material for damage and completeness for the project execution
- Inspect work in progress to ensure that workmanship conforms to specifications, quality and adherence to construction schedules.
- Facilitate resolving construction problems, discrepancies, procedures, and methods by working with engineering personnel, inspectors, contractors and suppliers. Must have strong communications skills.
- Minimize Change Orders. Support Project Manager Services to review any requested Change Orders/Notices or other claims submitted by Construction Contractors which relate to additional payments, schedule adjustments or other modifications to the Project, and make such recommendations to the utility regarding the legitimacy of such claims, and review the Construction Contractor's proposed mitigation.
- Review and understand the project Documentation and any related documentation and provide input to enhance the constructability of the Project, taking into account schedule, cost and quality considerations.
- Must be able and willing to be trained in E-STAR/CONVEX (switching and tagging) trained.
- Initiate transmission outage requests for project work through E-STAR and/or CONVEX
- Maintain a project change order and correspondence log
- Maintain a daily on-site as-build project plans (on-site must match contractors working copy)
- Continuously communicate (written and verbally) with the associated PM
- Coordinate as necessary with all local and state municipalities throughout project execution
- Ensure all CIP/NERC requirements are maintained throughout the project execution

2. Safety

- Assist with Review and concurrence of HASP from each contractor.
- Attend or carry out daily brief prior to starting work. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator. Get a copy of the contractor daily brief.
- Provide Safety Orientation to the workers and to ensure the test is filled.

- Ensure that the visitor and/or worker is aware of the daily brief content and sign off the form.
- Ensure that visitors have an escort during the visit
- Daily safety supervision of the activities and at least to carry out a weekly written inspection.
 - Agree with the contractor the preventive measures and the close date for the safety violations detected and monitoring with the contractor their closure. Report safety inspections to PM.
- Ensure that any accident, incident, near miss or injury is reported and investigated. Collaborate in the AVANGRID incident report.
- Propose Corrective Action reports and Preventive Action Report (CAR/PAR) to the SHEQ manager and collaborate in the implementation.

3. Environment

- Review the project Environmental Management Plan and provide improvements.
- Include an environmental tip in the daily brief prior to starting work. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator.
- Provide Orientation to the workers and to ensure the test is filled out.
- Daily Environmental supervision of the activities and at least to carry out a weekly written inspection.
 - Provide to the contractor, SHEQ and PM the Environmental inspections and monitoring with the contractor their closure.
- Ensure that any Environmental incident is reported and investigated and collaborate in the AVANGRID incident report.
- Review and pass along to Owner copies of environmental inspection reports, including those of third-party inspectors.
- Perform, document, and record weekly audits and inspections of the Contractor's documentation and work site
- Propose CAR/PAR to the SHEQ manager and collaborate in the implementation.
- Immediately notify AVANGRID PM of any regulatory inspector (i.e. NYSDEC, Maine DEP, EPA, FWS, CT DEEP, etc.) appearing onsite and any external communications from external parties.

4. Quality

- Assist with Review and Concurrence of Inspection Test Plan from each contractor. Shall be filled out as soon as the task is completed.
- Ensure that the ITP and deliverables are filled in the Contractor binder. The contractor MUST keep on site all the records organized.
- Ensure that there are on site the IFC drawings (with list of drawings) updated and with the transmittals.
 - Review the drawings and look ahead for mistakes
- Follow the red marks-ups and to collect all red marks in the FCM drawings hard copy.
 - Responsible for red mark-ups and ensure all contractors have current revision of drawings – Below Grade, Above Grade and Testing and Commissioning.

- Control properly the Project Request For Information, Design Change Notification, Proposal of Design Modification, Field Change Notification, Notice of Design Modification. Ensure that the RFI are answered and the design changes are followed.
 - FCM Cannot Approve DCN's or FCN's but is responsible for tracking, validation and execution of approval
- Collect all the project's permits requirements ensuring their compliance. Coordinate the permit inspections
- Verify equipment testing performed by contractor.
- Verification of as built data prior to submittal to AVANGRID.
- Perform, document and record weekly audits and inspections of the Contractor's documentation and work site.
- Propose NC to the PM and SHEQ. Follow the NC opened and document their closure.
- Review the contractor material submittal and send to the PM and Engineering for approval.
- Verify material receipts and note any discrepancies on packing slips. Storage material received according manufacture instructions .Report to AVANGRID PM or designee.
- Upload and assist with Document Control & Quality in Project Wise
- Propose Lessons Learned Weekly for complete project Lessons Learned Summary
- Carry out a **Weekly** quality inspection.
- Conduct pre and post energization inspections and ensure documentation is filled out and submitted to Project Team for review.
- Conduct material reconciliation at end of project with OWNER and Contractor supplied material.
- Verify all SAP data forms are filled out by contractor as equipment is being removed or installed.

5. Minimum Requirements/Experience

- Directly related experience in Construction and Maintenance of Substation Facilities or Transmission / Distribution Systems is necessary:
 1. Four year degree in a related field and 5 years of field experience, or
 2. Two year degree in a related field and 8 years of field experience, or
 3. Ten or more years of related experience in Construction and Maintenance of Electrical Transmission and Distribution Systems, or
 4. Ten or more years of related experience in Construction and Maintenance of Substation Facilities.
- General knowledge of electric line work and/or substation construction.
- General knowledge of electric theory.
- Previous experience holding switching and tagging procedures for projects requiring holding markup.
- General knowledge of applicable environmental regulations governing construction: storm water pollution prevention, wetlands, stream crossing, and spill response for projects requiring environmental permit or compliance.

- Basic knowledge of industry codes governing the electric industry including NEC, NESC, and OSHA.

Certifications:

- Background Check clearance to obtain a contractor badge per IUSA Contractor Background Check policy.
- Valid Driver's License.
- First Aid/AED
- OSHA 30

4. **Electric Operations – Field Construction Quality Coordinator (EO-FCQC)**

1. General Summary

This Electric Operations RFP is seeking Field Construction Quality Coordinators¹ (EO-FCQC) who will independently oversee electric utility work performed for Electric Operations by contractors to ensure the best interest of the company. Their level of responsibility will be similar in nature to that of a first line supervisor. Successful EO-FCQC supplier must provide resumes of qualified individuals, to demonstrate they have the training, skills and experience to meet the requirements specified in this RFP.

Supplier will be required to provide suitable transportation equipped with GPS, cell phone and laptop computer utilizing MS Office software that has Wireless capabilities for each Field Construction Quality Coordinator placed by this RFP.

Each Electric Operations Field Construction Quality Coordinator will oversee one or more electric line or substation projects awarded to a contractor and will represent the interest of the company. The contractor must supply their own supervisor or working foreman to supervise their field crews. The EO-FCQC will represent the Company by working with the contractor supervisor for the duration of the project to make sure material resource needs are met, construction plan is followed and project paperwork needed for invoice approval is submitted in a timely manner. The EO-FCQC will be required to field inspect the work and monitor the contractor to ensure conformity of electric substation, distribution and/or transmission projects to AVANGRID construction standards.

The EO-FCQC must have sufficient electric utility experience to be able to safely and efficiently oversee short term capital and maintenance projects. This experience allows the EO-FCQC to interface between the company and the contractors to ensure work is completed in accordance with company policies, procedures and budgets. EO-FCQC may be required to interact with a wide range of stakeholders (internal and external) to resolve problems and minimize project delays.

This RFP separates the Electric Operations Field Construction Quality Coordinator into two groups:

- Electric Line and
- Substation

Because of the diverse EO-FCQC technical skill and experience required between both groups, this RFP allows each Supplier to respond to the entire RFP or to structure a response for a specific geographical area and job title.

Commencement of any Project under this agreement is not to occur until a Purchase Order has been released to the Suppliers for services.

MAJOR ROLES AND RESPONSIBILITIES: (NY and CMP)

Company is aware that often anyone person will not possess the knowledge, skills and experience to perform every task listed below. It is the company intent to obtain a FCQC whose knowledge, skills and experience best matches the project being staffed.

Electric Line Field Construction Quality Coordinator

- Model standard electric line construction safe work behaviors.
- Work closely with the line contractor working foreman/supervisor who has overall responsibility for the contracted project.
- Be aware of permit requirements and be prepared for:
 1. State Department Of Transportation compliance inspection and
 2. Department Environmental Compliance (NY City) or Department of Environmental Protection (State) permits inspection.
- When necessary, act as Company's single point of contact for electric engineering, material management, line operations, electric contractor and customers for resolving open issues.
- Understand the project scope, cost drivers and milestone schedule by becoming familiar with the engineering design, material list and PayCU activities.
- When asked, participate in the Pre-Construction Planning Meeting in order to support a robust project plan being formulated. Items to be discussed should include, but not be limited to:
 1. Determine which organization (Company or Contractor) will be responsible for key items or activities.
 2. AVANGRID Responsibilities:
 - All necessary drawings and AVANGRID Standards.
 - Transmission and Distribution Materials provided for the project.
 3. Contractor Responsibilities:
 - Obtaining permission from land owners for access and parking if necessary.
 - Obtaining Staging Area as needed.
 - Restoring to all private and public property damaged in the course of work.
 - Contacting Dig Safe for setting poles.
 - Flagging when necessary.
 - Providing everything not included in the AVANGRID material list necessary to complete project such as consumable materials, tools, labor and equipment.

- Replacing of all AVANGRID material that is lost, damaged or stolen from their possession.
 - Providing weekly work plans and progress reports to the FCC.
 - Establish the level of details necessary to accurately reflect the material utilized on the job and conditions in the field and who is to receives the As-Built Documentation.
- 4. When/how to obtain written change order approval from the Division or Mobile Workforce Manager for project changes before proceeding.
- 5. Special Work Schedule Requirements:
 - Schedule work hours to support customer needs or
 - Road or lane closures limitations.
 - Process for checking for Crew Status when a storm is forecasted.
- 6. Permit Compliance:
 - State or County DOT
 - Environmental
- 7. Outage Plans:
 - Short outages necessary for individual transformer replacements or
 - Placing Recloser or Breaker on Single Shot for personnel protection while protecting circuit from large scale outages.
- 8. Plans for scrap return
- 9. Safety Concerns should be noted, such as:
 - Job will be done under live 19.2-KV, 3-phase rules for working a hot circuit, or
 - Locations of grounds.
- When asked, participate in the mobilization kick-off safety meeting with line contractor safety manager and line crews.
- Review as necessary with contractor supervisor circuit feed(s), switching and tagging protocol and system protection associated as the scope of the project changes during the course of the project.
- Ensure PayCU activities are completed as assigned to line contractor.
- Ensure as-built documentation as well as drawings/sketches are provided by the line contractor at the close of the project.
- Work with the electric line contractor to ensure:
 1. Arrangements have been made:
 - to safely store project material and
 - for material delivery to the reporting site,
 2. Recycle bins for scrap and miscellaneous project debris are available at the reporting site, and
 3. Company's Material Return Process is adhered to.
- When necessary, review project change order(s) for accuracy and completeness; be prepared to make a recommendation if necessary.
- Track project progress and provide scheduled project updates to the Division or Mobile Workforce Manager.
 1. Track progress and that work is being performed to engineering design and company's construction standards utilizing PayCU activities.

2. If requested, obtain line contractor's Daily Safety Tailboards paperwork.
 3. Review PayCU completed against projected PayCUs worksheets.
 4. Complete a project performance evaluation of electrical line contractor at completion of the project.
- When requested hold Line Markups and/or make Switching Order by:
 1. Obtaining company's switching and tagging authorization. (E-STAR or equivalent).
 2. Ensuring adherence to company reliability standards to minimize the frequency and duration of all outages.
 3. Establishing and maintaining contacts with System Operations staff to communicate initial project requirements and ongoing changes to project schedule and scope as it relates to E-STAR requirements.
 - Help coordinate emergency restoration efforts by:
 1. Requesting Storm Plan from Service Center or Mobile Workforce Manager (MRO) when sever weather is forecasted.
 2. Holding Contractor Crews over when directed by the responsible Service Center or Mobile Workforce Manager (MRO).
 3. Releasing Contractor Crews when directed by Service Center or Mobile Workforce Manager (MRO) if inclement weather passes.
 - General understanding of local bargaining unit contract affecting the contractor's workforce.

Substation Line Field Construction Quality Coordinator

- Substation Field Construction Quality Coordinator will provide escort duties for substation contractors performing maintenance and capital substation work.
 1. The substation escort duty is divided between Non-High Risk Work that is being performed on a de-energized circuit/component and High Risk Work that could result in loss of system reliability or worker, public or facility safety.
 2. The risk level of all substation work will be determined by Substation Manager or Supervisor/Designee and the risk level can change at the achievement of a project stop point.
- When requested, Substation FCQC will be responsible to establish access concurrence each day and to maintain oversight of the construction contractors during maintenance or construction activities.
- Observe contractor tailboard discussions to ensure a ample review of plans to address inadvertent operation and the restoration of any interrupted customers as directed by Energy Control Center occurs.
- Have sufficient industry knowledge to safeguard against inadvertently excavate underground conduits, lines, bus-work, etc. by the contractor.
- When requested, perform checks to ensure:
 1. All wiring is verified by the construction contractors,
 2. All relay settings have been entered and
 3. Station switching plans are implemented to minimize errant operations.
 4. All testing has been performed and documented.
 5. Take the initiative to report and help resolve open issues to insure company quality standards are met.

- When requested, work with the Operations Technologies (OT) and Electric Operations to support SCADA system automation of the substation and field components. This work may include field and system communication (Cellular or WiMAX) from component installation in the field through testing and commissioning of the automated device.
- Track project progress and provide scheduled project updates to the Substation Manager.
 1. Track progress and that work is being performed to engineering design and company's construction standards.
 2. If requested, obtain substation contractor's Daily Safety Tailboards paperwork as part of the report.
 3. Complete a project performance evaluation of substation contractor at completion of the project.
- If requested, act as Company's single point of contact for electric engineering, material management, line operations, substation contractor and other concerned parties for resolving open issues and insuring successful hand-off of a project to Operations.
 1. When necessary suggest what training is needed by the division crews before turning the project over.
 2. If applicable, confirm that the contractor has updated all as-built prints, and that relay settings have been approved/updated into the RTCL database.
- When requested, hold Line Markups and/or make Switching Order by:
 1. Obtaining company's switching and tagging authorization. (E-STAR or its equivalent)
 2. Ensuring adherence to company reliability standards to minimize the frequency and duration of all outages.
 3. Establishing and maintaining contacts with System Operations staff to communicate initial project requirements and ongoing changes to project schedule and scope as it relates to E-STAR requirements.
- When requested, help coordinate emergency restoration efforts.

JOB REQUIREMENTS:

Skills/Abilities:

- Self-directed individual that is focused on achieving desired results.
- Proven oral and written communications skills.
- Able to multitask.
- Computer skills applicable to MS Office.
- Proven supervisory skills based on past work history.
- Solid interpersonal skills with a strong customer service orientation.
- Able and willing to be complete IUSA Substation Hazard Awareness course, Number ELC-30-0208.
- Able and willing to be E-STAR (switching and tagging) trained.
- Able and willing to be Substation Awareness/Safe Entry Trained.
- Able and willing to travel within an assigned region or area.
- When requested, able and willing to support storm work or other electric system emergencies.

Experience/Training:

- Directly related experience in Construction and Maintenance of Substation Facilities or Transmission / Distribution Systems is necessary:
 1. Four year degree in a related field and 2 years of field experience, or
 2. Two year degree in a related field and 3 years of field experience, or
 3. Five or more years of related experience in Construction and Maintenance of Electrical Transmission and Distribution Systems, or
 4. Five or more years of related experience in Construction and Maintenance of Substation Facilities.
- General knowledge of electric line work and/or substation construction.
- General knowledge of electric theory.
- Previous experience holding switching and tagging procedures for projects requiring holding markup.
- General knowledge of applicable environmental regulations governing construction: storm water pollution prevention, wetlands, stream crossing, and spill response for projects requiring environmental permit or compliance.
- Basic knowledge of industry codes governing the electric industry including NEC, NESC, and OSHA.

Certifications:

- Background Check clearance to obtain a contractor badge per IUSA Contractor Background Check policy.
- Valid Driver's License.

SELECTION CRITERIA:

Upon request, Supplier for Electric Operations Field Construction Quality Coordinators must provide a sample resume library of qualified individuals. Library demonstrates Supplier ability to fill the qualified candidate requirements specified in this RFP pertaining to knowledge, skills and experience to meet the Major Roles and Responsibilities.

Labor pricing for a three-year period is to be provided using Electric Operations Field Construction Quality Coordinators Pricing Workbook. Pricing is based on Network Service Center locations and Job Titles. ~~If an Electric Operations Field Construction Quality Coordinator is requested by a Network Company to work away from their normal assigned Service Center location, employee travel, meals and lodging arrangements are to be managed by the Supplier and invoiced as a pass-through cost. Based on AVANGRID accounts payable policy, receipts for reasonable travel, meals, and lodging expenses are required for reimbursement.~~

Up to forty-hour work week is anticipated but not guaranteed. Schedule adjustments may be necessary to accommodate the needs of the assigned project and the electric or substation contractor specific project agreement.

Pricing will be based on hourly rates for services rendered as follows:

- Straight time - 40 hour work week or less and
- Overtime after 40 hours per work week.

The successful bidder will invoice on a monthly basis or at the conclusion of the FCQC assignment.

MAJOR ROLES AND RESPONSIBILITIES: (UI work)

Company is aware that often anyone person will not possess the knowledge, skills and experience to perform every task listed below. It is the company intent to obtain a FCQC whose knowledge, skills and experience best matches the project being staffed.

Electric Line Field Construction Quality Coordinator

- Model standard electric line construction safe work behaviors.
- Work closely with the line contractor working foreman/supervisor who has overall responsibility for the contracted project.
- Be aware of permit requirements and be prepared for:
 1. State Department Of Transportation compliance inspection and
 2. Department of Environmental Protection (CT) permits inspection.
- When necessary, act as Company's single point of contact for electric engineering, material management, line operations, electric contractor and customers for resolving open issues.
- Understand the project scope, cost drivers and milestone schedule by becoming familiar with the engineering design, material list and PayCU activities.
- When asked, participate in the Pre-Construction Planning Meeting in order to support a robust project plan being formulated. Items to be discussed should include, but not be limited to:
 1. Determine which organization (Company or Contractor) will be responsible for key items or activities.
 2. UI Responsibilities:
 - All necessary drawings and UI Standards.
 - Distribution Materials provided for the project.
 3. Contractor Responsibilities:
 - Obtaining permission from land owners for access and parking if necessary.
 - Obtaining Staging Area as needed.
 - Restoring to all private and public property damaged in the course of work.
 - Contacting Dig Safe for setting poles.
 - Flagging when necessary.
 - Providing everything not included in the UI material list necessary to complete project such as consumable materials, tools, labor and equipment.
 - Replacing of all UI material that is lost, damaged or stolen from their possession.
 - Providing weekly work plans and progress reports to the FCC.
 - Establish the level of details necessary to accurately reflect the material utilized on the job and conditions in the field and who is to receives the As-Built Documentation.

4. When/how to obtain written change order approval from the Division or Project Manager for project changes before proceeding.
5. Special Work Schedule Requirements:
 - Schedule work hours to support customer needs or
 - Road or lane closures limitations.
 - Process for checking for Crew Status when a storm is forecasted.
6. Permit Compliance:
 - State or County DOT
 - Environmental
7. Outage Plans:
 - Short outages necessary for individual transformer replacements or
 - Placing Recloser or Breaker on Single Shot for personnel protection while protecting circuit from large scale outages.
8. Plans for scrap return
9. Safety Concerns should be noted, such as:
 - Job will be done under live 19.2KV, 3-phase rules for working a hot circuit, or
 - Locations of grounds.
- When asked, participate in the mobilization kick-off safety meeting with line contractor safety manager and line crews.
- Review as necessary with contractor supervisor circuit feed(s), switching and tagging protocol and system protection associated as the scope of the project changes during the course of the project.
- Ensure PayCU activities are completed as assigned to line contractor.
- Ensure as-built documentation as well as drawings/sketches are provided by the line contractor at the close of the project.
- Work with the electric line contractor to ensure:
 1. Arrangements have been made:
 - to safely store project material and
 - for material delivery to the reporting site,
 2. Recycle bins for scrap and miscellaneous project debris are available at the reporting site, and
 3. Company's Material Return Process is adhered to.
- When necessary, review project change order(s) for accuracy and completeness; be prepared to make a recommendation if necessary.
- Track project progress and provide scheduled project updates to the Division or Project Manager.
 1. Track progress and that work is being performed to engineering design and company's construction standards utilizing PayCU activities.
 2. If requested, obtain line contractor's Daily Safety Tailboards paperwork.
 3. Observe contractor tailboard discussions to ensure a ample review of plans to address inadvertent operation and the restoration of any interrupted customers as directed by Energy Control Center occurs.
 4. Review PayCU completed against projected PayCUs worksheets.

5. Complete a project performance evaluation of electrical line contractor at completion of the project.
- Have sufficient industry knowledge to safeguard against inadvertently excavate underground conduits, lines, etc. by the contractor.
 - When requested, work with the Electric Operations to support SCADA system automation of field components.
 - When requested hold Line Markups and/or make Switching Order by:
 1. Obtaining company's switching and tagging authorization. (TD800 or equivalent).
 2. Ensuring adherence to company reliability standards to minimize the frequency and duration of all outages.
 3. Establishing and maintaining contacts with System Operations staff to communicate initial project requirements and ongoing changes to project schedule and scope as it relates to TD800 requirements.
 - Help coordinate emergency restoration efforts by:
 1. Requesting Storm Plan from Service Center or Operations Construction Manager (MRO) when sever weather is forecasted.
 2. Holding Contractor Crews over when directed by the responsible Service Center or Operations Construction Manager (MRO).
 3. Releasing Contractor Crews when directed by Service Center or Operations Construction Manager (MRO) if inclement weather passes.
 - General understanding of local bargaining unit contract affecting the contractor's workforce.
 - If requested, act as Company's single point of contact for electric engineering, material management, line operations, and other concerned parties for resolving open issues and insuring successful hand-off of a project to Operations.
 1. When necessary suggest what training is needed by the division crews before turning the project over.
 2. If applicable, confirm that the contractor has updated all as-built prints.
 -

JOB REQUIREMENTS:

Skills/Abilities:

- Self-directed individual that is focused on achieving desired results.
- Proven oral and written communications skills.
- Able to multitask.
- Computer skills applicable to MS Office.
- Proven supervisory skills based on past work history.
- Solid interpersonal skills with a strong customer service orientation.
- Able and willing to be TD800 (switching and tagging) trained.
- Able and willing to travel within an assigned region or area.
- When requested, able and willing to support storm work or other electric system emergencies.

Experience/Training:

- Directly related experience in Construction and Maintenance Distribution Systems is necessary:
 - Four year degree in a related field and 2 years of field experience, or
 - Two year degree in a related field and 3 years of field experience, or
 - Five or more years of related experience in Construction and Maintenance of Electrical Distribution Systems, or
- General knowledge of electric line work construction.
- General knowledge of electric theory.
- Previous experience holding switching and tagging procedures for projects requiring holding markup.
- General knowledge of applicable environmental regulations governing construction: storm water pollution prevention, wetlands, stream crossing, and spill response for projects requiring environmental permit or compliance.
- Basic knowledge of industry codes governing the electric industry including NEC, NESC, and OSHA.

Certifications:

- Background Check clearance to obtain a contractor badge per AVANGRID Contractor Background Check policy.
- Valid Driver's License.

SELECTION CRITERIA:

Upon request, Supplier for Electric Operations Field Construction Quality Coordinators must provide a sample resume library of qualified individuals. Library demonstrates Supplier ability to fill the qualified candidate requirements specified in this RFP pertaining to knowledge, skills and experience to meet the Major Roles and Responsibilities.

Labor pricing for a two year period (contract ending in September of 2021) is to be provided using Electric Operations Field Construction Quality Coordinators Pricing Workbook. Pricing is based on Network Service Center locations and Job Titles. If an Electric Operations Field Construction Quality Coordinator is requested by a Network Company to work away from their normal assigned Service Center location, employee travel, meals and lodging arrangements are to be managed by the Supplier and invoiced as a pass through cost. Based on AVANGRID accounts payable policy, receipts for reasonable travel, meals, and lodging expenses are required for reimbursement.

Up to forty hour work week is anticipated but not guaranteed. Schedule adjustments may be necessary to accommodate the needs of the assigned project and the electric or substation contractor specific project agreement.

Pricing will be based on hourly rates for services rendered as follows:

- Straight time - 40 hour work week or less and
- Overtime after 40 hours per work week.
- Storm time – short notice emergency restoration work as requested by Operations Construction Manager (MRO)

The successful bidder will invoice on a monthly basis or at the conclusion of the FCQC assignment.

4. SCHEDULE D - COMMERCIAL CONDITIONS

The commercial conditions that will regulate this **CONTRACT** are described in the contractual Master Services Procurement Agreement and the points described below:

1. Price

Prices shall be submitted by the **BIDDER** according to the prices Bid Form referred in Invitation to Tender section of this document.

Prices shall be fixed according to the conditions defined within the RFP.

All works and supplies shall be quoted by the **BIDDER** in USD.

Unit prices and applicable non-labor markups are firm and not subject to revision during the complete life of the **CONTRACT**.

2. Payment terms

Payment will be done based on the documentation submitted and approved, according to the unit rates and hours worked on the **Project**.

Contractor has to submit to the Owner its payment estimation and once accepted, Contractor has to submit an invoice attaching that acceptance.

5. SCHEDULE E – SPECIAL CONDITIONS

1. Progress Report

The **Contractor** shall complete a weekly report throughout the course of the **Project** in order to provide a detailed description of all work performed, percentage of progress advanced on the project, and to provide details for any issues or developments regarding the **Project**. This report will be completed per the template provided by the **Owner** and released to the **Owner** on ProjectWise each week.

Any and all delays or updates to the **Project's** schedule should be reflected in the weekly report.

The **Contractor** shall notify the **Owner** of any work believed to be outside of the agreed upon scope of work. All non-labor charges, subject to markup, will be approved by the Project Manager, in writing, before committing to purchase these materials, services or subcontracted items.

Scope of Services for Gas FCM (NYSEG & RG&E)

BASIC INFORMATION

PURPOSE:

Avangrid (“Owner”) requires the services of a firm (“Contractor”) to provide Field Construction Management (“FCM”) services, as further defined within this document, for Owner’s natural gas and hydro power generation subsidiaries in New York, Connecticut, Massachusetts, and Maine (“Companies or Owner”).

SCOPE:

The Scope will include FCM roles required for the Companies as outlined in this document. This document contains the required responsibilities for the different FCM roles associated with gas transmission pipeline, gas distribution pipeline, pipeline maintenance/integrity management program activities and hydro power generation projects.

All hourly rates for any of the services here specified are to include:

- Travel and expenses, including but not limited to mileage, car rental, hotel, etc., where applicable as indicated on the proposal form
- In situations where drive time is greater than one hour, Contractor is to be paid straight time for these additional hour(s)

The Owner is requesting bids on the following positions:

- Field Inspector - Construction
- Field Inspector – Integrity Management
- Supervisor – Distribution
- Supervisor – Operations
- Administrative Assistant 1
- Administrative Assistant 2
- Mark Out Inspector
- Field Construction Manager – Gas
- Field Construction Manager – Hydro
- Construction Manager
- Environmental Inspector
- Safety Inspector

Contractors are requested to fill out the attached bid template for each of the Companies and for both regular and overtime rates. Overtime will be paid after a Contractor employee works more than 40 hours in a week (Sunday – Saturday).

The Owner reserve the right to refuse or remove FCM personnel at any time if specific individual shows lack of knowledge, precaution, expertise or any other reasonable reason as determined by the Owner.

All potential Contractor employees must have high proficiency in the English language for all positions.

ABBREVIATIONS:

- BGC: Berkshire Gas Company
- CNG: Connecticut Natural Gas Corporation
- CNG-G: CNG – Greenwich Division
- MNG: Maine Natural Gas
- MSA: Master Services Agreement
- NGA OQ: Northeast Gas Association Operator Qualification
- NYSEG: New York State Electric and Gas
- RFP: Request for Proposal
- RG&E: Rochester Gas and Electric
- SCG: The Southern Connecticut Natural Gas Company

Documentation

Documentation

In addition to the provided pricing and a copy of the commercial terms document (redlined to reflect any applicable changes by Contractor), each Contractor submitted with their bid the following information, which is used to ensure the technical capabilities of the Contractor to do the requested work:

- Bid Deviation Form – List of exceptions to the project scope, FCM roles and responsibilities and/or commercial terms, if any. Any and all exceptions, clarifications, deviations from or assumptions related to the specifications or commercial terms will be noted on the Bid Deviation Form with specific reference to the document and paragraph related to the exception, clarification, deviation, or assumption.
- Contractor background
 - A description of the Contractor and their major lines of business
 - Three (3) years of audited financial statements, if publicly available
 - If financial statements are not publicly available, a description of the financial state of the Contractor can be included
 - A copy of relevant documents/marketing material indicating how the Contractor could perform the services requested
 - A copy of the Contractor's mission and vision statements, if applicable
- Safety statistics and background
 - Three (3) years of safety statistics (DART rate, TRIR, number of PMVAs, and other relevant safety statistics) that will allow the Companies to evaluate the Contractor's commitment to safety
 - A description of the Company's safety programs, along with any relevant documentation
 - A listing of any fines paid or lawsuits pending against the Contractor for the last three (3) years

- Documentation that Contractor has a grade of “C” or better with the ISNetworld safety system. Contractors must have a safety grade of “C” or better with ISNetworld in order to be qualified for this work
- Résumés, qualifications and references demonstrating the technical capabilities and experience of Contractor employees in similar services and type of projects
 - For those requested services which require NGA OQ qualification, a listing of the tasks for which all of the Contractor’s employees are qualified

The prices on the enclosed template should include:

- Fully loaded employee rates including:
 - All required payroll taxes
 - All applicable insurance
 - All associated employee benefits including paid time off
- Vehicle costs or work-related travel mileage
- Per diems or daily living expenses
- All mobilization/demobilization and intermediate travel home expenses
- Costs associated with cell phones, hand held tablets, laptop computers, GPS devices, printers (11x17”), and all consumables such as printer ink. See the attached price template for information on which items are required for each position

The Contractor will indicate to the Owner any error or omission in the documents sent with the RFP documents that should not go unnoticed, or that he/she notices due to his/her own experience, and will propose any modifications he/she considers as necessary in those documents to ensure the adequate performance of the Scope.

The documents that constitute this project are part of the Owner’s plans and as such, the Contractor is required to treat any such data or information as proprietary to the Owner.

Confidential data and information herein may not be disclosed to any other persons or entities.

Position Roles and Responsibilities

Field Inspector - Construction

The Field Inspector inspects second party contractors for compliance with safety, company standards and NGA OQ or Veriforce OQ tasks. The Field Inspector will visit job sites to observe crews performing work activities. Each Field Inspector will record inspections in accordance with Company requirements.

General Tasks

- Field Inspection – observe and interact with crews to ensure compliance in the performance of the work activities
- Documentation – document inspections and provide results as designated by the Company. Documentation includes completion of applicable paper forms or electronic records as designated by the operating company
- Vehicle – all Field Inspectors will provide their own vehicle. No company vehicles will be given to Field Inspectors. Additionally, all Field Inspector vehicles will be equipped with GPS tracking devices so that the Companies can track their progress throughout the day
- Adhere to Company safety standards

Experience and Education

- High school diploma or equivalent
- 2-3 years related experience
- Must be NGA or Veriforce OQ qualified for any tasks being observed
- Must be proficient in specific operating company construction standards and will have a thorough understanding of natural gas pipeline construction inspection

Field Inspector – Integrity Management

The Field Inspector inspects second party contractors for compliance with safety, company standards and NGA OQ or Veriforce OQ tasks. The Field Inspector will visit job sites to observe crews performing work activities. Each Field Inspector will record inspections in accordance with Company requirements.

General Tasks

- Field Inspection – observe and interact with crews to ensure compliance in the performance of the work activities
- Report periodic project progress, risks and opportunities
- Documentation – document inspections and provide results as designated by the Company. Documentation includes completion of applicable paper forms or electronic records as designated by the operating company
- Vehicle – all Field Inspectors will provide their own vehicle. No company vehicles will be given to Field Inspectors. Additionally, all Field Inspector vehicles will be equipped with GPS tracking devices so that the operating companies can track their progress throughout the day
- Ensure all changes to specifications, work scope and drawings are communicated to Company and documented
- Adhere to Company Safety Standards and Accident Prevention Manual and promote safety culture among the observed personnel.

Experience and Education

- High school diploma or equivalent
- 2-3 years related experience
- Must be NGA or Veriforce OQ qualified for any tasks being observed
- Must be proficient in specific operating company construction standards and will have a thorough understanding of natural gas integrity management processes
- Will have a minimum of 5 years of related experience with knowledge of integrity maintenance on energized pipelines preferred

Supervisor - Distribution

The Supervisor – Distribution will work within the Distribution department to oversee the work of internal Distribution crews. The Supervisor – Distribution may be assigned certain crews and be required to distribute work to said crews and keep apprised on their progress.

General Tasks

- Distribute work to crews
- Supervise crews and monitor progress on assigned tasks

- Vehicle – all Supervisors will provide their own vehicle. No company vehicles will be given to Supervisors. Additionally, all Supervisor vehicles will be equipped with GPS tracking devices so that the operating companies can track their progress throughout the day

Experience and Education

- High school diploma or equivalent
- 5+ years related experience
- Must be NGA OQ qualified for any tasks being observed or supervised
- Must be proficient in specific operating company construction standards and O&M plans

Supervisor - Operations

The Supervisor – Operations will oversee the company's maintenance program. The Supervisor – Operations will ensure that all required elements of the program are accomplished accurately and in a timely manner. The Supervisor – Operations will also be required to complete any paperwork or electronic forms as required by the specific operating company.

General Tasks

- Supervise system maintenance program to ensure compliance with required activities/inspections
- Vehicle – all Supervisors will provide their own vehicle. No company vehicles will be given to Supervisors. Additionally, all Supervisor vehicles will be equipped with GPS tracking devices so that the operating companies can track their progress throughout the day

Experience and Education

- High school diploma or equivalent
- 2-3 years related experience
- Must be NGA OQ qualified for any tasks being observed or supervised
- Must be proficient in corrosion control standards as outlined in the specific operating company's O&M plan

Administrative Assistant 1

The Administrative Assistant will perform clerical duties in support of Company employees. The Administrative Assistant may be assigned to specific personnel or tasks or may be asked to perform functions for multiple groups.

General Tasks

- Administrative functions as assigned (including but not limited to: reconcile invoices, duplication services, prepare and maintain spreadsheets and tracking documents, enter into and recover data from SAP, etc.)

Experience and Education

- High school diploma or equivalent
- 2-3 years related experience
- Must be proficient in Microsoft Excel and Word
- SAP experience preferred, but not required

Administrative Assistant 2

The Administrative Assistant will perform clerical duties in support of Company employees, the Field Construction Manager, Construction Manager, Project Manager and work activities. The Administrative Assistant may be assigned to specific personnel or tasks or may be asked to perform functions for multiple groups.

General Tasks

- Administrative functions as assigned (reconcile invoices, duplication services, prepare and maintain spreadsheets and tracking documents enter into and recover data from SAP, etc.)
- Prepare meeting agendas and meeting minutes
- Maintain and organize project documentation in support of work projects and/or programs
- Coordinate correspondence and distribution of project documents. Administrative functions as assigned (reconcile invoices, populate spreadsheets, enter data into SAP, etc.)
- Gather, collate and/or assemble documents, scan documents and/or compile data into electronic formats on mass storage devices as directed and deliver to Company representatives according to agreed upon timeframes.

Experience and Education

- High school diploma or equivalent
- 2-3 years related experience in the natural gas industry
- Must be proficient in Microsoft Excel and Word
- SAP experience and experience with delivering project orientation to new project related personnel is preferred

Mark Out Inspector

The Mark Out Inspector will perform mark outs of company facilities when requested by a CBYD/Dig Safe ticket. The Mark Out Inspector should be able to read maps and service cards to ensure proper location of facilities.

General Tasks

- Forms – Mark Out Inspectors will fill out all appropriate paperwork or electronic forms as designated by the operating company
- Vehicle – all Mark Out Inspectors will provide their own vehicle. No company vehicles will be given to Mark Out Inspectors. Additionally, all Mark Out Inspector vehicles will be equipped with GPS tracking devices so that the operating companies can track their progress throughout the day

Experience and Education

- High school diploma or equivalent
- 2-3 years related experience
- Must be NGA OQ qualified and formally trained in mark out procedures

Field Construction Manager – Gas

The Field Construction Manager (“FCM”) will oversee contractor construction activities on behalf of the Owner to ensure compliance with the plans and specifications, safety and environmental regulations, and Company requirements. The FCM will coordinate onsite work activities with Company operations, concurrent site activities, and other projects. The FCM will coordinate and manage onsite work documentation and communications in support of the overall Construction Manager (“CM”), Project Manager PM, and/or the Owner. The FCM may report to the CM, PM, or directly to the Owner, depending on the size and complexity of the construction project.

2.4.8.1 General Tasks

- Field Inspection – observe contractor crews and work activities to ensure compliance with the plans and specifications, safety and environmental regulations, and company requirements
- Coordination of onsite activities – coordinate onsite work activities with Company operations, concurrent site activities, and other projects
- Communication and documentation – the FCM will coordinate and manage onsite work documentation and communications in support of the CM, PM, and/or the Owner
- Provide field support to solve problems – gather and relay onsite, and coordinate with onsite contractors, company personnel, and the CM, PM and/or Owner to solve problems
- Manage site access – make notifications to open and close daily work. Check the site at the beginning and end of the shift. Notify the PM and Owner in case of anomalies
- Reporting – prepare daily, weekly, and monthly reports
- Monitor schedule – review contractor invoices and schedules
- Attend the contractor’s safety, environment and quality meetings
- Update Health and Safety, Environmental and Quality project documentation
- Conduct weekly project progress meetings and prepare meeting agendas and minutes
- Must be always onsite whenever work is being performed (make frequent observation of contractor’s activities and adherence to all project requirements. Immediately notify the CM, PM, and/or Owner of any and all problems or foreseeable issues throughout the work or any complaint presented by the general public
- Coordinate material delivery between Owner’s stockroom and contractor
- Inspect all project related material for damage, completeness, and compliance with the plans and specs
- Inspect work in progress to ensure that workmanship conforms to specifications
- Support the CM, PM, and/or Owner to review submittals, requests for information (“RFI”), requested change orders, additional payments, schedule adjustments, nonconformance, or other modifications to the project

- Review and understand the construction documents and any related documentation and provide input to enhance the constructability of the project, considering schedule, cost and quality considerations
- Develop and maintain as-built documentation
- Continuously communicate (written and verbally) with the CM, PM, and/or Owner

- **Safety**

- Assist with review and concurrence of the Site-Specific Health and Safety Plan (SSHASP) from each construction contractor
- Attend or carry out daily job brief prior to starting work. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator. Receive and retain a copy of the contractor daily brief
- Provide site safety orientation to all personnel on site
- Ensure that all visitors and/or workers are aware of the daily brief content and sign off the form
- Ensure that visitors have an escort during the visit
- Oversee and monitor construction activities to ensure compliance with all laws and regulations (e.g., OSHA), approved SSHASP plans, and Owner requirements
- Work with the contractor to identify, document, and resolve any safety deficiency
- Ensure that any accident, incident, near miss or injury is reported and investigated. Collaborate in the Owner's incident report

Environment

- Review and understand the project Environmental Management Plan and communicate any deficiency or the need for any improvements
- Oversee onsite activities to ensure compliance with environmental regulations, contract documents, and Company policies
- Ensure that any environmental incident is reported, investigated and documented
- Review and pass along to CM, PM and/or Owner copies of environmental inspection reports, including those of third-party inspectors
- Perform, document, and record weekly audits and inspections of the contractor's documentation and work site

Quality

- Assist with review and concurrence of contractor's quality assurance and quality control ("QA/QC") plan
- Manage, review and ensure compliance of the contractor's quality control documentation
- Ensure that Issued for Construction ("IFC") drawings and construction documents on site are up to date, and complete. Ensure that all contractors have up-to date information
- Review and understand the construction documents and the drawings and look ahead for potential problems
- Collect and manage all as-built red-line marks-ups and maintain an FCM copy of all red-line markups
- Manage and control contractor's RFI process. Ensure that the RFI is answered and the directions are followed. FCM cannot approve RFIs but is responsible for tracking, validation and execution of approval

- Review, understand, and maintain copies of all project permits onsite. Conduct and coordinate the permit inspections to ensure compliance
- Verify equipment testing performed by contractor
- Verify as-built data prior to submittal to the Owner
- Report non-compliance to the CM, PM, and/or Owner. Support resolution, and manage noncompliance incidents until closure
- Review the contractor material submittals and provide edits/comments to the CM, PM, Design Engineer of Record (“DEOR”), and/or Owner for approval
- Verify material receipts and note any discrepancies on packing slips. Storage material received according manufacture instructions
- Upload and assist with document control & quality in Project Wise, the Owner’s project documentation database

Experience and Education

- Bachelor’s degree in engineering or construction related field
- 5+ years related experience in Construction Management or related field and has a good understanding of natural gas pipeline construction management for Gas Field Construction Management
- Knowledge of integrity management program activities on energized pipelines is preferred
- **Must be proficient in Company construction standards and O&M plans**

Field Construction Manager – Hydro

The Field Construction Manager (“FCM”) will oversee contractor construction activities on behalf of the Owner to ensure compliance with the plans and specifications, safety and environmental regulations, and Company requirements. The FCM will coordinate onsite work activities with Company operations, concurrent site activities, and other projects. The FCM will coordinate and manage onsite work documentation and communications in support of the overall Construction Manager (“CM”), Project Manager PM, and/or the Owner. The FCM may report to the CM, PM, or directly to the Owner, depending on the size and complexity of the construction project.

General Tasks

- Field Inspection – observe contractor crews and work activities to ensure compliance with the plans and specifications, safety and environmental regulations, and company requirements
- Coordination of onsite activities – coordinate onsite work activities with Company operations, concurrent site activities, and other projects
- Communication and documentation – the FCM will coordinate and manage onsite work documentation and communications in support of the CM, PM, and/or the Owner

- Provide field support to solve problems – gather and relay onsite, and coordinate with onsite contractors, company personnel, and the CM, PM and/or Owner to solve problems
- Manage site access – make notifications to open and close daily work. Check the site at the beginning and end of the shift. Notify the PM and Owner in case of anomalies
- Reporting – prepare daily, weekly, and monthly reports
- Monitor schedule – review contractor invoices and schedules
- Attend the contractor’s safety, environment and quality meetings
- Update Health and Safety, Environmental and Quality project documentation
- Conduct weekly project progress meetings and prepare meeting agendas and minutes
- Must be always onsite whenever work is being performed (make frequent observation of contractor’s activities and adherence to all project requirements. Immediately notify the CM, PM, and/or Owner of any and all problems or foreseeable issues throughout the work or any complaint presented by the general public
- Coordinate material delivery between Owner’s stockroom and contractor
- Inspect all project related material for damage, completeness, and compliance with the plans and specs
- Inspect work in progress to ensure that workmanship conforms to specifications
- Support the CM, PM, and/or Owner to review submittals, requests for information (“RFI”), requested change orders, additional payments, schedule adjustments, nonconformance, or other modifications to the project
- Review and understand the construction documents and any related documentation and provide input to enhance the constructability of the project, considering schedule, cost and quality considerations
- Develop and maintain as-built documentation
- Continuously communicate (written and verbally) with the CM, PM, and/or Owner

- **Safety**

- Assist with review and concurrence of the Site-Specific Health and Safety Plan (SSHASP) from each construction contractor
- Attend or carry out daily job brief prior to starting work. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator. Receive and retain a copy of the contractor daily brief
- Provide site safety orientation to all personnel on site
- Ensure that all visitors and/or workers are aware of the daily brief content and sign off the form
- Ensure that visitors have an escort during the visit
- Oversee and monitor construction activities to ensure compliance with all laws and regulations (e.g., OSHA), approved SSHASP plans, and Owner requirements
- Work with the contractor to identify, document, and resolve any safety deficiency
- Ensure that any accident, incident, near miss or injury is reported and investigated. Collaborate in the Owner’s incident report

Environment

- Review and understand the project Environmental Management Plan and communicate any deficiency or the need for any improvements
- Oversee onsite activities to ensure compliance with environmental regulations, contract documents, and Company policies
- Ensure that any environmental incident is reported, investigated and documented
- Review and pass along to CM, PM and/or Owner copies of environmental inspection reports, including those of third-party inspectors
- Perform, document, and record weekly audits and inspections of the contractor's documentation and work site

Quality

- Assist with review and concurrence of contractor's quality assurance and quality control ("QA/QC") plan
- Manage, review and ensure compliance of the contractor's quality control documentation
- Ensure that Issued for Construction ("IFC") drawings and construction documents on site are up to date, and complete. Ensure that all contractors have up-to date information
- Review and understand the construction documents and the drawings and look ahead for potential problems
- Collect and manage all as-built red-line marks-ups and maintain an FCM copy of all red-line markups
- Manage and control contractor's RFI process. Ensure that the RFI is answered and the directions are followed. FCM cannot approve RFIs but is responsible for tracking, validation and execution of approval
- Review, understand, and maintain copies of all project permits onsite. Conduct and coordinate the permit inspections to ensure compliance
- Verify equipment testing performed by contractor
- Verify as-built data prior to submittal to the Owner
- Report non-compliance to the CM, PM, and/or Owner. Support resolution, and manage noncompliance incidents until closure
- Review the contractor material submittals and provide edits/comments to the CM, PM, Design Engineer of Record ("DEOR"), and/or Owner for approval
- Verify material receipts and note any discrepancies on packing slips. Storage material received according manufacture instructions
- Upload and assist with document control & quality in Project Wise, the Owner's project documentation database

Experience and Education

- Bachelor's degree in engineering or construction related field
- 15+ years related experience in Construction Management or related field and has a good understanding of hydro power generation construction management for Hydro Field Construction Management
- Knowledge of integrity management program activities on hydro power generation is preferred

- **Must be proficient in Company construction standards and O&M plans**
- Proficient in Microsoft Office

i. Construction Manager

In addition to the tasks of the FCM, the CM will perform the following tasks in support of the PM, and the Owner:

- Construction planning and development, design review, oversight of construction, commissioning and closeout activities
- Review of the construction documents prepared by the project DEOR
- Review, understand, and verify accuracy and completeness of the Bill of Materials (“BOM”) and pricing tables provided by the DEOR for the project
- Review, understand and comment on sub schedule or milestone proposal to be achieved by the construction contractor
- Review contractor bid responses including attendance at specific meetings with construction contractors if necessary
- Participate in the construction kick-off meeting with the construction contractor, PM, and the Owner
- Manage distribution and control of IFC documentation
- Management of site supervision facilities: office with communications, water and electricity distribution network for the various contractors, site access roads, physical delimitation of the site, site access control, identification of the warehouse area, etc.
- Verify environmental and construction permits, and compliance to permit conditions where applicable
- Review and accept the contractor’s SSHASP, QA/QC, Inspection and Testing Plans (“ITP”) and Environmental Management plans that apply to each project
- Review and accept the contractor’s execution procedures prior to the beginning of activities
- Control of work schedules carried out by the construction contractors and update of production progress
- Physical control of the executed work units (how many units have been completed)
- Technical control of the executed work units (tests are carried out and ITPs fulfilled)
- Monitoring the source of the materials provided directly by the construction contractors
- Review of the test protocol, where applicable
- Control of the means and human resources provided by the construction contractor. Obtaining production ratios, milestone achievement trends and deadlines
- Warehouse management
- Working with FCM, provide recommendation of approval of field changes and impact to cost and schedule

- Working with FCM, cost control of each package: Measurement of units to be executed and execution unit tendencies of the packages, introducing approved changes or modifications
- Working with FCM, production information necessary for the correct project financial and deadline tracking based on the project's general scope and schedule
- Analysis of program fulfillment: Work finalization tendencies are established and any delays/advances as they occur
- Receipt, review and approval, generally on a monthly basis, of certifications prepared by construction contractors and reviewed by FCM in order to receive payment for completed contracted work units
- Analysis of delays in the schedule: possible speeding-up plans
- Analysis of extra budget costs and their causes
- Price and deadline impacts of any significant incident on the project during the construction stage
- Establishing the progress of each contract or package: significant incidents
- Communication of construction contract closing
- Preparation of the final project documentation for transfer to the Owner
- Closing of pending issues needs to be documented and accepted by the party receiving the construction work. This is an iterative process

Experience and Education

- Bachelor's degree in engineering or construction related field
- 20+ years related experience in Construction Management or related field
- **Must be proficient in Company construction standards and O&M plans**
- PMP certification preferred
- Proficient in Microsoft Office

Environmental Inspector

General Summary

The Environmental Inspector (EI) shall monitor and advise the FCM, CM, PM, and/or the Owner and the Construction Contractor(s) on construction of specific projects to ensure compliance with all laws and regulations, approved plans, permit conditions, and environmental best management practices, including, as appropriate: Erosion and sedimentation control, construction access stabilization, stormwater management, wetlands protection, rare, threatened and endangered species protection, stream buffer protection, maintenance of water quality, management of construction materials, and dust control. The EI shall ensure adequate environmental controls on the Project(s).

Environmental Inspector Responsibilities

The EI shall conduct the following Work on the Project(s):

- Review with, and train as necessary, construction and erosion control crews in erosion control, construction access stabilization and maintenance, and permit compliance.
- Notify the Field Construction Manager (FCM) of each day the EI intends to visit the Project Site, and what specific areas will be inspected or maintained.

- Utilize Owner's Environmental Guidelines, as well as all permits/licenses, drawings, and plans for the Project as reference to ensure that all appropriate environmental protection controls are implemented proactively.
- Establish high standards of environmental performance early in the Project by communicating frequently with the FCM and other key Project/Construction Contractor personnel as to what is expected, what is working well and what is not working well. Proactively advise on all environmental aspects of the project, including the planning and implementation of work site access and all permit/license and regulatory compliance.
- Advise the construction and efficient use of erosion control devices to ensure they are not unnecessarily overused on the Project to negatively affect cost.
- Immediately notify the FCM when the EI becomes aware of either practical opportunities to improve environmental protection, or of potential problems involving erosion and sedimentation control, construction access, stormwater management, wetland protection, wetland damage restoration, rare plant species protection, stream buffers, or other permit requirements. Specifically:
 - If a Maine Department of Environmental Protection (MDEP) third-party inspector (3PI) has been assigned to a project, use 3PI reports as the basis/template for all EI reports, and respond to each 3PI recommendation by adding comments and follow-up actions after each 3PI recommendation.
 - Provide guidance to the Construction Contractor(s) to correct any erosion control installation or maintenance deficiencies noted in 3PI and/or EI reports, in a timely manner.
 - Provide written documentation of implementation status of all 3PI and/or EI recommended environmental controls.
 - Provide, within forty-eight (48) hours of all written 3PI reports, a written status report to include: a summary of all 3PI recommendations; concurrence with all 3PI recommendations with which EI agrees; and discussion of any 3PI recommendations with which EI disagrees.
 - Confirm in writing the adequate installation and maintenance of all erosion controls in each EI report.
 - Note and highlight any uncorrected erosion control deficiencies, including explanations, in each EI report.
 - If EI believes that 3PI field comments conflict with 3PI written report or recommendations, notify the Owner, request written clarification from 3PI, and request that MDEP be copied on this clarification.
 - Discuss and resolve any inconsistent or contradictory 3PI
- In case of NY State, The EI must hold:
 - Before commencing construction activity, the owner or operator of a construction project that will involve soil disturbance of one or more acres must obtain coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002)
 - Under the SPDES General Permit for Stormwater Discharges from Construction Activity, certain contractors (Trained Contractor) and certain

Qualified Inspectors are required to complete 4 hours of Department endorsed training in the principles and practices of erosion and sediment control (E&SC) every 3 years.

- If the EI observes existing or potential problems in any area noted above, they shall not leave the work site without reporting the observation, as well as the recommended remedy, to the FCM. If the FCM is not available in this situation, the EI will communicate the problem and remedy directly to the on-site foreman or construction supervisor.
- Upload reports of EI's observations every week to ProjectWise. Reports shall have the following content:
 - Location of the areas inspected by the EI,
 - Description of the environmental compliance practices observed in the inspection,
 - Description on any areas of concern or non-compliance, as well as any measures to be undertaken by the Construction Contractor(s) to remedy the issues,
 - Photos of the areas inspected by the EI.
- Before Construction activities begin on the Project, the EI review and understand all environmental plans, practices, and permit requirements.
- After the initial construction start-up phase, the EI inspections shall average two (2) days per week or less or as often as conditions (e.g., extent of disturbed soil areas; number of active work sites; stage of construction; season; and significant precipitation events) may require.
- It is anticipated that the EI shall spend more time on the Project site in the early stages and less time later as expectations are better understood and followed, and the Contractor(s) has demonstrated its environmental proficiency.
- The EI shall track weather forecasts and plan accordingly to inspect areas of the Project site most vulnerable to erosion or sedimentation, before and after significant precipitation events. The EI shall use their judgment as to whether frozen precipitation events pose the risk of erosion or sedimentation.
- If there is a MDEP-required third-party inspector (3PI) assigned to a particular project, the EI shall coordinate their site inspections with those of the 3PI so that the EI and 3PI can share observations and recommendations and discuss any areas of disagreement.

Environmental Inspector Skills and Abilities

- The EI must have the following skills and abilities to work on the Project:
 - Self-directed individual that is focused on achieving desired results.
 - Proven oral and written communication skills.
 - Able to multitask.
 - Fluent in the use of Microsoft Office.
 - Proven environmental knowledge based on past work history.
 - Strong interpersonal skills with a strong customer service orientation.
 - Able and willing to travel within an assigned region or area.

Environmental Inspector Experience and Training

- The EI must have the following experience and training to work on the Project:
 - Direct related experience in the permitting and environmental practices of utility transmission line and/or substation projects:
 - Four (4) year degree in a related field and two (2) years of field experience.
 - Knowledge of electric line work and/or substation work.
 - Knowledge of applicable environmental regulations governing construction, including stormwater pollution prevention, wetlands, streams crossings and spill response.
 - Knowledge of practices and methods for erosion control, stormwater pollution prevention, protecting wetlands/streams crossings and spill response.
 - The EI shall hold a valid driver's license.

Safety Inspector

The Safety Inspector (SI) shall oversee and monitor construction activities to ensure compliance with all laws and regulations (OSHA), approved Health and Safety Plans (SSHASP) plans, and Owner requirements. The safety Inspector will support and advise the FCM, CM, PM, and/or the Owner, and the Construction Contractor(s) on construction activities to ensure that all work is conducted in a safe manner.

2.4.12.1 General tasks:

- Review and consult on the Contractor Site Specific Health and Safety Plans (SSHASP)
- Attend or carry out daily brief prior to starting work. Participate in the process. Identify any opportunities for improvement and provide feedback to the originator. Receive and retain a copy of the contractor daily brief.
- Provide Safety Orientation to the workers.
- Ensure that all visitors and/or workers are aware of the daily brief content and sign off the form.
- Ensure that visitors have an escort during the visit
- Daily safety supervision of the activities and periodic written inspection.
- Work with the contractor to identify, document, and resolve any safety deficiency.
- Ensure that any accident, incident, near miss or injury is reported and investigated. Collaborate in the Owner's incident report.
 - Experience and Education
 - 4-year degree related field
 - 5+ years related experience in related field

Commercial Conditions

The commercial conditions that will regulate this contract are described in this MSA and the points described below:

Price

Prices were submitted by the Contractor on the Bid Sheet – FCM Services document included with the project package. Overtime will be paid after a Contractor employee works more than 40 hours in a week (Sunday – Saturday).

All work and supplies will be quoted by the Contractor in US Dollars.

Hourly prices are firm and not subject to revision during the life of the contract.

Payment terms

Payment terms are set forth in this MSA. Invoices are to be issued weekly and are due to the respective Companies within five (5) business days of the completion of a week (Sunday – Saturday).

Schedule C Terms and Conditions

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ARTICLE 1 – CONTRACT DOCUMENTATION AND DESCRIPTION OF SERVICES

Pursuant to that certain Master Services Procurement Agreement (the “Agreement”) between Avangrid Service Company (hereinafter, “Customer”), and [REDACTED] hereinafter, “Supplier” or “Contractor”), the entity (Customer and/or Company (ies)) named in the given Purchase Order, engages the Supplier, and the Supplier hereby agrees to perform the Services.

The Services shall be as described in **Schedule B** of the Agreement; as such, Schedule may be amended, modified or supplemented and attached hereto for the purposes of the Purchase Order.

The provision of the Services shall be governed by the order of precedence set forth in the Agreement, Section 2.2(c) of the Agreement.

All work shall be invoiced in accordance with the pricing schedule approved by Customer for the Services, “Pricing Schedule,” included in **Schedule D**, attached hereto and made a part hereof (unless otherwise agreed to in writing by the Customer).

Supplier further agrees to do the following:

A. Supplier, through its experience and the normal course of business, has included full provision for local wage rates, travel and subsistence rates, allowances and conditions, if any, as well as allowances for any other measures necessary to complete the work in a satisfactory manner in accordance with this Agreement.

B. Supplier has read, understands and shall comply with **Schedule E**, hereby referred to as “Special Conditions”, attached hereto and made a part hereof.

C. Upon execution (for purposes hereof execution means when Supplier has begun to provide Services pursuant to the Purchase Order) of a Purchase Order:

1) Supplier has examined all available records pertaining to the work.

2) Supplier further states that the Contract Price and detailed schedule for completion of the work are based on Supplier’s known knowledge and judgment of the conditions and hazards involved, and not upon a representation of the Customer. The Customer assumes no responsibility for any understandings or representation made by any of their representatives during or prior to execution of this Agreement unless such understandings or representations are expressly stated in this Agreement and the Agreement expressly provides that the responsibility is assumed by the Customer.

ARTICLE 2 - CONTRACT PRICE

The Contract Price for the Services (made up of the costs, fees and expenses arising under Article 3 below) shall be set forth in the Purchase Order and shall be considered fixed unless stated otherwise (time and equipment, for example) on the face of the Purchase Order.

ARTICLE 3 - REIMBURSABLE ITEMS

The Supplier shall be reimbursed for the following items for Services performed under this Agreement:

A. Fees

Supplier shall be paid at the rates per hour specified in ***Schedule D*** to the Agreement for time spent in the actual performance of Services hereunder, including the preparation of reports, UNLESS a predetermined firm lump sum price has been agreed upon by both parties for all or part of the work, the criteria of which would take precedence as referenced therein. Time spent in Normal Commuting is not a billable expense. The term "Normal Commuting" means Supplier's first trip to any Work Location in a given day and Supplier's last trip from any Work Location in a given day. The term "Work Location" shall mean any location at which Services are or are to be performed by the Supplier. The term "Supplier's Base" shall mean the location or respective locations (which shall be disclosed to Customer in advance) from which Supplier will normally travel to Work Locations to perform Services. The Supplier agrees whenever possible, to coordinate travel arrangements that will maximize time spent in performing Services for the Customer.

(i) Customer will not reimburse Supplier for additional expenses invoiced separately under a fixed bid project. The Supplier must include all the expected expenses from the quoted project within the fixed bid proposal.

(ii) Supplier will follow Customer's holidays. Supplier will not be compensated for work performed during Customer's holidays unless specifically scheduled. Customer will not pay premium rates in the event that a Supplier's holiday occurs on a Customer's 'normal' work day. Customer shall provide their holiday schedule to the Supplier, via official transmittal, each year in advance.

(iii) Customer reserves the right to renegotiate or reject expenses when the Supplier's local office personnel are not utilized for the awarded project but meet the required job classification/criteria to complete the project and Supplier utilizes resources from other Supplier's offices.

B. Travel Expenses

(i) Customer will pay or reimburse Supplier for actual cost of travel expenses incurred during the course of travel undertaken at Customer's request for the performance of Services, including travel from Work Location to Work Location, not including Normal Commuting, as follows:

- Customer will pay or reimburse Supplier for the actual cost of reasonable meals; and
- Customer will not reimburse Supplier's meal expenses for travel when an individual leaves their home base and returns to their respective home base within the same day.

(ii) The Supplier may rent a car to travel from Work Location to Work Location. Supplier will be reimbursed actual cost of all parking, highway, and/or bridge charges paid en route.

ARTICLE 4 - PAYMENTS

A. Invoices will be paid by the 60th day after the receipt by Customer of a properly completed invoice, supported by original receipts, and detailing the travel expenses.

B. An original and copy of each invoice are to be mailed to the "Bill to Location" provided in the Purchase Order.

Each invoice shall show the Purchase Order Number, Supplier work location, payment terms and the job name and other information, which may be required or reasonably requested by Customer.

The following documentation must accompany each invoice:

(i) Summary statements listing employee name, job classification, hours charged and hourly billing rates (both straight time and overtime if applicable) and total charges for the invoice period.

(ii) Copy of invoices for material, services, rentals, contracts, and other items purchased or rented in connection with the Services.

(iii) Copies of expense account summary sheets for each individual performing Services will be provided. The summary sheet will summarize lodging, meals, transportation and any other expenses. The period of time will also be shown. Supplier shall retain copies of supporting documents for such expense accounts, and these will be made available for Customer review upon written request by Customer. Supplier shall preserve all pertinent records supporting payment for Services hereunder for a period of two (2) years after final payment for the Services.

(iv) For the initial invoice submitted by Supplier for the Services under this Agreement, the bank account number of Supplier to which payments should be made by Customer and/or Company under this Agreement must be provided in writing with evidence of account ownership as provided herein. For any change in such bank account information, Supplier shall at least thirty (30) days prior to the applicable payment date provide Customer and Company with an account ownership certificate acceptable to Customer for any change to the original bank account information, in addition to the requirements set forth below.

Supplier acknowledges that invoices that do not contain the above information or are not addressed as stated in the Purchase Order may cause payment delay.

A) Method of payment

All payments by Customer and/or Company will be made by bank transfer to the bank account that the Supplier notifies Customer at least thirty (30) days prior to the applicable payment date pursuant to the notice requirements in this Agreement. Supplier must prove the account ownership and the identifying details of the bank account.

Any change in the bank details of the Supplier must be duly notified to Customer and/or Company, including the relevant supporting documentation. Otherwise, Customer and Company will not be obligated to make payment to the new account and payment to the former account will constitute a discharge of all obligations by Customer and Company. In any case, Customer and Company may withhold the corresponding payment, without incurring any type of liability, until the provider proves reasonable evidence of the ownership of the bank account. In the event Supplier owes money to the Customer or has defaulted under this Agreement or under any other agreements with the Customer, or Supplier has failed to pay any amount owed to the Customer whether pursuant to an agreement, a statutory or regulatory fine, the imposition of statutory or regulatory damages, or otherwise (collectively, the “Obligations”), the Customer may, at its option, setoff and/or net any or all such Obligations against any amounts owed by the Customer to the Supplier.

B) Communications

Any notifications, requests and other communications by Supplier related to the administrative management and payments under this Agreement shall be made in writing through the secure communication channel implemented for that purpose by Customer and/or Company. If such secure communication channel is not available, such notifications, requests and other such communications by Supplier must be either: (i) delivered personally; (ii) sent by fax or e-mail (with confirmation); or (iii) sent by mail (with proof of delivery) to the address listed as belonging to each party in the Agreement.

ARTICLE 5 – TAXES

The Contract Price does not include sales/use taxes. Supplier shall be responsible for payment of and assumes exclusive liability for any and all contributions or taxes imposed by or required under the laws of the State of New York or any other state or Federal law, or the Federal Social Security Act or any other act, now or hereafter in effect, upon or in respect to, wages, salaries, benefits or other compensation paid to employees engaged upon or in connection with the Services. Customer shall withhold from any payments due Supplier hereunder any amounts that it is required to withhold pursuant to any Federal or State tax laws.

ARTICLE 6 – CHANGES

No changes in the Scope of Services are authorized unless made by Customer and sustained by written Supplement. A Change is an addition, deletion, or revision in the Services or an adjustment in the Contract Price or the Schedule. Changes made by Supplier, unless authorized by an executed Supplement, shall be made at the sole risk of Supplier, there being no financial recourse against Customer. No changes in the Agreement will be made without a Supplement agreed by Customer and/or Company(ies). Unless otherwise agreed, all Supplements shall be governed by the conditions of this Agreement.

ARTICLE 7 - CLAIMS/DISPUTES

A. Any claims by Supplier relating to this Agreement, must be submitted to the Customer in writing within fourteen (14) calendar days of initial occurrence of the basis for the claim. Failure to provide such notification shall be deemed waiver of such claim.

B. The notice of claim shall include the particulars and shall specify the cause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Supplier considers itself to be entitled in connection with the Agreement.

C. dispute or claims by the Supplier shall not affect the diligent prosecution by Supplier of the Services.

D. Request for Negotiations If a dispute arises out of, or in connection with this Agreement, and the parties do not resolve some or all of the dispute through informal discussions, then: 4 Within fourteen (14) calendar days from the last discussion of the dispute or disputed issues which still remain unresolved, written notice containing a request to negotiate shall be given by either Party to the other(s). Negotiations shall occur first between authorized representatives of the Supplier and representatives of the Customer who are in a supervisory role of the Project Management of the Agreement. If the representatives do not resolve some or all of the issues in the dispute within thirty (30) calendar days after the negotiations have been initiated, then

without further delay, written notice shall be given by either Party to the other(s) in an attempt to resolve the issues in dispute through a second level of negotiations in a meeting between a Vice President of the Supplier and a Vice President of the Customer (each such person, a "Vice President"). All information exchanged during these negotiations shall be regarded as "without prejudice" communications for the purpose of settlement negotiations and shall be treated as confidential by the Parties and their representatives, unless otherwise required by law. However, evidence that is independently admissible or discoverable shall not be rendered inadmissible or non-discoverable by virtue of its use during the negotiations. If the Parties do not resolve some or all of the issues in dispute through a second level of negotiations in the Vice President's meeting within thirty (30) calendar days after the negotiations have been initiated, then each Party, without further delay, shall have the right to submit the Dispute to court in accordance with Article 41 [Governing Law].

ARTICLE 8 – AUDIT

Supplier shall check all materials and labor entering into the Services and shall keep full and detailed accounts as may be necessary to provide proper financial management under this Agreement. At all reasonable times, the Customer shall have access to the Supplier's offices, work and records pertinent to all charges, for inspection, audit and review. Supplier shall permit such examination and make appropriate adjustments as may be required by the results of the audit. All results of these audits must be kept confidential between the Parties and their agents. This provision shall remain in effect for two (2) years following final payment under this Agreement.

ARTICLE 9 - RIGHTS, PRIVILEGES, REMEDIES; NON WAIVER

All rights, privileges and remedies afforded each of the parties hereto by this Agreement shall be deemed cumulative and the exercise of any one or more of such rights or remedies shall not be deemed a waiver of any other right, privilege or remedy provided for herein or available at law or in equity.

ARTICLE 10 - NON WAIVER OF RIGHTS

Any failure by the Customer to enforce or require the strict performance of the terms or conditions of this Agreement shall not constitute a waiver of such terms or conditions and shall not affect or impair such terms or conditions in any way.

ARTICLE 11 - SET-OFF

In the event Supplier owes money to the Customer or has defaulted under this Agreement or under any other agreements with the Customer, or Supplier has failed to pay any amount owed to the Customer whether pursuant to an agreement, a statutory or regulatory fine, the imposition of statutory or regulatory damages, or otherwise (collectively, the "Obligations"), the Customer may,

at its option, setoff and/or net any or all such Obligations against any amounts owed by the Customer to the Supplier.

ARTICLE 12 - CONFLICTING DOCUMENTS

To the extent, if any, that the specifications, drawings or other documents that may be referenced herein conflict with the provisions of this Agreement, the order of precedence set forth in Section 2.2(c) of the Agreement shall govern such conflict.

ARTICLE 13 - INDEPENDENT SUPPLIER

Supplier is and shall always remain an independent contractor in its performance of this Agreement. With the exception of staff augmentation engineering services required by Customer, where Supplier's personnel work out of Customer's offices under Customer's direction, the provisions of this Agreement shall not be construed as authorizing or reserving to Customer any right to exercise any control or direction over the operations, activities, employees or agents of Supplier in connection with this Agreement. Neither Party to this Agreement shall have any authority to employ any person as agent or employee for or on behalf of the other party to this Agreement for any purpose, and neither Party to this Agreement, nor any person performing any duties or engaging in any work at the request of such Party, shall be deemed to be an employee or agent of the other Party to this Agreement.

Customer shall carry no worker's compensation insurance, health insurance or accident insurance to cover the Supplier, or any of its agents, employees or subcontractors. Customer shall not pay any contributions to Social Security, unemployment insurance, federal or state withholding taxes, or provide any other contributions or benefits which might be expected in an employer/employee relationship. The Supplier agrees to report and pay any contributions for taxes, unemployment insurance, Social Security and any other required payments himself or herself.

ARTICLE 14 – SUBCONTRACTS

If Supplier shall cause any part of the work to be performed by a sub-contractor, the provisions of this Agreement shall apply to such sub-contractor and its officers, agents or employees in all aspects as if they were employees of Supplier, and Supplier shall not thereby be discharged from any of its obligations and liability hereunder, but shall be liable hereunder for all acts and omissions of the sub-contractors. Nothing hereunder shall create any contractual relationship between Customer and any subcontractor or any sub-subcontractor.

The Supplier shall submit a list of those work items which it plans to subcontract and the names of Supplier's subcontractor proposed for the work together with all materials for an evaluation by Customer's Corporate Security Group. Supplier's subcontractor may not be changed except at the request of or with the written approval of the Customer, which shall not be unreasonably withheld.

The Customer shall promptly notify the Supplier in writing if, after due investigation, Customer has reasonable objection to any subcontractor on such list and does not accept it. Copies of all subcontracts shall be furnished to the applicable Customer contract management representative.

Supplier shall assign to Customer any subcontractor warranties applicable to the Services that extend beyond the applicable warranty period upon the expiration or termination of such warranty period. Contractor shall assign any subcontractor warranties applicable to the Services to Customer if Supplier becomes insolvent or files for bankruptcy.

ARTICLE 15 - THIRD PARTY BENEFITS

Except as may be specifically provided for herein, no provision of this Agreement is intended or is to be construed to be for the benefit of any third party.

ARTICLE 16 – SAFETY

Customer may at any time suspend the work or any part thereof, immediately and verbally for reasons of safety. In the event of any work stoppage, Supplier shall properly protect such work as may be liable to sustain injury from any cause.

The Avangrid Networks Contractor Safety Guide for Suppliers are attached hereto and made a part hereof, as **Schedule J** and shall apply to all work performed under this Agreement.

ARTICLE 17 – ACCIDENT, SECURITY AND LOSS PREVENTION

For the protection of workers and the public, the Supplier will take all necessary and advisable precautions for the safety of all persons and property at, on, or near the work site and will erect and maintain all necessary and advisable safeguards as required by the conditions, prudent industry practice, and progress of the work. Supplier is responsible for the security and protection of its own equipment, supplies, and tools used in connection with the Services. Supplier must use due care to protect any of the Customer's or Company(ies)'s property in its possession or under its control at any time while performing the Services, which must not be less than the care exercised by Supplier with its own property, and Supplier is responsible for any damage to such property resulting from its failure to use such care. For the avoidance of doubt, this Article shall be subject to the terms of the Data Security Rider, if applicable.

ARTICLE 18 – INSURANCE

Supplier shall maintain insurance in accordance with the requirements as set forth in **Schedule G** and the cyber insurance requirements set forth in **Schedule H**. Supplier must maintain applicable insurance for the full term of this Agreement. An insurance certificate must be mailed to Customer prior to starting Services.

ARTICLE 19 – INDEMNIFICATION

Supplier will indemnify, defend at its expense and hold harmless, to the fullest extent permissible by law, the Customer and its Affiliates, directors, officers, employees, shareholders, managers, members, partners, agents, successors, permitted assigns, and all affiliated and subsidiary companies, corporations, trusts, partnerships, joint ventures (including joint venture partners), associated companies, associations, subsidiaries of the foregoing and individuals which are now or may hereafter be owned, controlled, operated, or directed by or a subsidiary to Customer, (the "Indemnatee"), from and against any and all claims, demands, suits, losses, costs, fees, damages or expenses it may suffer, or for which it may be held liable, whether including, without limitation, reasonable expenses and attorney's fees incurred in the connection therewith, by reason of:

- A. any patent, trademark, or copyright infringement claim, or any design, device, process or procedure used, installed or provided by the Supplier or its agents or subcontractors under this Agreement;
- B. any work-related accident or injury affecting an employee, agent or subcontractor of the Supplier, arising in connection with work performed under this Agreement;
- C. any claim by an agency or instrumentality of the federal, state or any local government, or by an employee, agent or subcontractor of the Supplier alleging that:
 - i. the Indemnatee is required to maintain worker's compensation or unemployment or any other type of insurance upon any employee, agent or subcontractor of the Supplier;
 - ii. the Indemnatee is liable for tax payments or withholding with respect to any employee, agent or subcontractor of the Supplier;
 - iii. any employee, agent or subcontractor of the Supplier is entitled to receive employee benefits from the Indemnatee, including, without limitation, vacation, deferred compensation, medical, pension, 401(k) or any other benefit available to the Indemnatee's employees; and
 - iv. the Indemnatee is liable to any party, for any reason, due to the negligent performance of Services or omissions by an employee, agent or subcontractor of the Supplier;
- D. bodily injury, including death, to any person or persons due to the negligent, reckless or willful actions or omissions of the Supplier or its agents or subcontractors;
- E. Damage to or destruction of any property, including loss of use thereof, due to the negligent, reckless or willful actions or omissions of the Supplier, or its agents or subcontractors.

Individual employees, agents and subcontractors of the Supplier who are performing services for the Indemnatee under this Agreement shall be considered to be employees, agents or subcontractors of the Supplier for all purposes under this Agreement, notwithstanding any judicial or administrative determination that such employees, agents or subcontractors of the other party should be regarded as employees under applicable law. All actions of the employees, agents and subcontractors of the Supplier under this Agreement shall be deemed to be actions of the Supplier under these indemnities and this Agreement. In furtherance of the foregoing indemnification and not by way of limitation thereof, the Supplier hereby waives any defense or immunity it might otherwise have under applicable worker's compensation laws or any other statute or judicial decision (including, for work or Services to be conducted in Maine, without limitation, *Diamond International Corp. v Sullivan & Merritt, Inc.* 493 A2d. 1043 (Me 1985)) disallowing or limiting such indemnification, and the Supplier consents to a cause of action for indemnity.

ARTICLE 20 – WARRANTY

The Supplier warrants that the Services performed under this Agreement shall be performed in accordance with any Customer and applicable Company's technical documentation, standards, manuals and procedure or and other procedure specified in the RFP together with the specifications set forth in a Purchase Order or elsewhere herein, and otherwise in accordance with sound and generally accepted industry practice by those who render these types of services with that degree of skill and care as required by customarily accepted professional practices and procedures, at the time such services are performed. If the Supplier's Services are faulty, the Supplier shall for a period of one (1) year after completion of Services, without labor charge and adders or other fee to Customer, promptly re-perform such Services to the extent necessary to correct the fault therein. This provision shall not be construed to affect or limit the liability of the Supplier to third parties, Supplier's obligation to Customer pursuant to the Indemnification clause contained herein or any other remedy which may be available to Customer under applicable law. The warranty hereunder is transferable to any assignee of Customer's rights under this Agreement, including for any remaining warranty period should an assignment occur.

ARTICLE 21 - APPROVAL/ACCEPTANCE

All work under this Agreement shall be subject to the Customer's inspection and approval before payment. Acceptance of Services hereunder by Customer does not relive Supplier from any of its obligations under this Agreement or any scope of work, and does not constitute waiver of any of the rights and remedies of Customer hereunder.

ARTICLE 22 - FORCE MAJEURE

For purposes of this Agreement, "Force Majeure Event" means, with respect to a Party, any event or circumstance, regardless of whether it was foreseeable, that was not caused by that Party or the negligence of that Party and that prevents a Party from complying with any of its obligations under

this Agreement, and that the Party claiming the occurrence of such event has furnished the other Party with prompt notice when it appears that such cause will result in non-performance or shall threaten to impair such Party's performance, except that a Force Majeure Event will not include a strike, workforce unavailability, or other labor unrest that affect only one Party, late delivery or breakage of equipment or materials (except to the extent due to a Force Majeure event otherwise excusable hereunder), lack of funds or change in economic circumstance, a failure of performance of any third party (except to the extent due to a Force Majeure event otherwise excusable hereunder), an increase in prices, a change in market demand, a, weather or climatic conditions within the range of severity as recorded by the National Oceanic and Atmospheric Administration over the past twenty-five (25) years in the vicinity of the Site or elsewhere, or actions of a Governmental Authority with respect to the Supplier's compliance, or failure to comply, with Applicable Laws, Permits, or Governmental Authority-imposed measures. Force Majeure may include the following events, (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies in each case within the country; (b) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war in each case within the country; (c) riot, commotion, disorder, strike or lockout in each case within the country, by persons other than the Supplier, the Supplier's Personnel, Subcontractors and other employees of the Supplier; (d) ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such radiation or radio-activity; or, (e) natural catastrophes, such as earthquake, volcanic activity, wildfire, hurricane or typhoon (but not any other weather, climate or meteorological conditions). Supplier shall have used its best efforts to remedy the delaying cause or condition and recommence performance, and has furnished the Customer with prompt written notice when it appears that such cause will result in non-performance or shall threaten to impair Customer's ability to operate. Customer shall have the right, at its option and without being under any liability to Supplier, to cancel by notice in writing to Supplier the portion or portions of the work so affected and to take such compensation action as may be necessary. Correspondingly, Customer shall be excused for failure of performance herein due to any cause beyond its control and without its fault or negligence. Upon occurrence of a Force Majeure Event, the nonperforming Party shall promptly notify the other Party of occurrence of that Force Majeure Event, its effect on performance, and how long that Party expects it to last. Thereafter the nonperforming Party shall update that information as reasonably necessary. During a Force Majeure Event, the nonperforming Party shall use reasonable efforts to limit damages to the other party and to resume its performance under this Agreement. If the Force Majeure Event extends for more than twenty (20) days and if the Supplier cannot reasonably reschedule or perform any affected element of this Agreement, the Customer shall be entitled to terminate this Agreement upon notice to the Supplier. Supplier shall furnish timely reports every ten (10) Business Days during the continuation of each Force Majeure Event with respect thereto and whenever such Force Majeure Event has ceased. If a Force Majeure Event materially affects Supplier's schedule for performance hereunder, Supplier may request an equitable adjustment and the Parties agree to memorialize schedule changes in a change order. If the effects of a Force Majeure Event last longer than twelve (12) months, that shall entitle Customer to terminate the Agreement or Purchase Order, as the case may be.

Customer and Supplier expressly agree, notwithstanding any provision in this Agreement to the contrary, that: (i) a COVID-19 pandemic exists worldwide as of the execution date of this Agreement; (ii) the existence of such pandemic, and its effects, now, and for the duration of Supplier's performance under the Agreement including, without limitation, effects upon pricing, schedule, quantities or specifications, if any, shall not be cause for Supplier to rely upon, invoke, or avail itself to, any rights or remedies under this Agreement, at law, or in equity, for a claim, or an adjustment to the price, schedule, quantities, specifications, or other material terms of this Agreement, including the rights and remedies set forth in the Force Majeure provision of this Agreement, however, this clause does not pertain to COVID 19 variants or other unforeseeable events that are unknown as of the date of this Agreement that may emerge from the global COVID-19 pandemic; (iii) the material terms of this Agreement, particularly terms relating to price, schedule, quantities, availability and specifications, take into consideration, and fully account for, the existence of such pandemic and its effects, now, and for the foreseeable duration of Supplier's performance under the Agreement; and (iv) such COVID-19 pandemic shall not render Supplier unable to fulfill any of its obligations under the Agreement, and Supplier shall not have any claim, action or cause of action against Customer in connection with such pandemic, including any claim for frustration of purpose, change in circumstances, economic balance or impossibility. This provision shall survive the completion or earlier termination of this Agreement.

ARTICLE 23 - TITLE AND LIENS

Supplier represents and warrants that it has title to all equipment or material furnished hereunder free and clear of all liens and encumbrances. Complete legal and equitable title to each item of equipment or material covered by this Agreement shall pass to the Customer immediately upon delivery at job site. This provision shall apply irrespective of any terms of payment specified in this Agreement. Passage of title pursuant to this provision shall not release or waive any continuing or subsequent responsibility of Supplier under this Agreement.

Supplier shall take all action reasonably necessary to discharge, remove, or satisfy any lien filed against any property of the Customer, or any portion thereof, arising from any work, labor, services, or materials claimed to have been performed or furnished for, or on behalf of, the Supplier or any person or entity by or through the Supplier. Supplier shall forthwith take such action necessary to discharge, remove, or satisfy any such lien filed against the property of the Customer, including but not limited to posting of a bond. If the Supplier shall fail to discharge, remove, or satisfy any such lien within ten (10) days after notice of the existence of such lien has been provided by the Customer, the Customer shall have the right, but not the obligation, to pay the amount of such lien, or discharge the same by deposit or bonding, and the amount so paid or deposited, or the premium paid for such bond, with interest at the maximum allowable by law, may be set-off against any payment due Supplier under this Agreement.

ARTICLE 24 - PROGRESS AND COMPLETION

It is expressly understood by the Supplier that TIME IS OF THE ESSENCE in the performance of the Purchase Order. The Supplier shall begin the work on the date of commencement set forth in the Purchase Order. The Supplier shall carry the work forward expeditiously with adequate forces and shall complete it by the time work is to be completed as stated in the Purchase Order.

If the Supplier is delayed at any time in the progress of the work, written notice thereof, including an explanation of the cause and the anticipated duration of the delay, shall be given promptly to the Customer by the Supplier, but in no event later than five (5) days after such delay becomes apparent. Failure to give such notice promptly and within such time limit shall be deemed sufficient reason for denial by Customer of an extension of time for performance and may be deemed a default.

Failure of Supplier's subcontractor or materials and equipment suppliers to meet schedules shall not be cause for an extension of time. Supplier acknowledges that it has sole responsibility for expediting the efforts of its subcontractors, suppliers, and others.

Customer will continuously assess Supplier's **resources'** performance for the duration of the Project to which the said **resource** is assigned. If as a result of such assessment, Customer comes to the conclusion that such resource does not have a satisfactory performance, Customer will immediately notify Supplier in writing of the result of such assessment.

Supplier then will proceed to remove the resource or implement any necessary measure to solve the performance concern notified by Customer.

If after the first notice from Customer, Supplier decides not to replace the resource and Customer by a second assessment stills acknowledges the same problems or continues to notice a not satisfactorily performance of the said resource, then Customer shall ask for a replacement of the resource to Supplier and without prejudice to other remedies that Customer may have under the Agreement or the law, Supplier shall pay to Customer as liquidated damages one per cent (1%) of the Contract Price for each full calendar week, until Supplier is able to provide a suitable solution to Customer.

Such resource inadequacy liquidated damages shall never exceed ten per cent (10%) of the Contract Price

The Parties acknowledge and agree that because of the unique nature of the performance it is difficult or impossible to determine with precision the amount of damages that would or might be incurred by Customer as a result of Supplier's failure to supply the adequate resources in a timely manner under the applicable Agreement, Statement of Work, or applicable order. It is understood and agreed by the Parties that (i) Customer shall be disadvantaged by failure of

Supplier to meet such obligations, (ii) it would be impracticable or extremely difficult to quantify the amount of Customer's damages resulting therefrom, and (iii) any Liquidated Damages payable under the applicable Agreement, Statement of Work, or applicable order are not a penalty, but instead represent a fair and reasonable estimate of damages for Supplier's failure to supply the adequate resources.

ARTICLE 25 - EMERGENCIES

The Supplier shall perform any work and shall furnish and install any materials and equipment necessary during an emergency affecting the safety of persons and property. In all cases, Supplier shall notify the Customer of the emergency as soon as practicable, but shall not wait for instructions before proceeding to properly protect both life and property. Any additional compensation or extension of time claimed by the Supplier on account of emergency work shall be determined by mutual agreement of the parties.

ARTICLE 26 - WORK STOPPAGE

Supplier's personnel shall not honor any union picket lines or strikes nor take part in any work slowdown or stoppage nor refuse to report for work, unless such action is protected by any state or federal labor relations law. Notwithstanding the preceding sentence, it shall be the obligation of the Supplier to supply a qualified work force. Customer may terminate this Agreement if Supplier fails to provide a qualified work force within twenty-four (24) hours of Customer's notification to Supplier that a qualified work force has not been supplied.

ARTICLE 27 - TERMINATION

Customer may for any reason, with or without cause, on written notice to Supplier terminate all or any part of the unperformed portion of this Agreement without liability to Customer except as stated in this Article. Termination of a scope of work or a Purchase Order under this Article 27 does not terminate this Agreement unless expressly stated in the notice of termination. In full discharge of any obligations to Supplier with respect to this Agreement and such termination, Customer shall pay Supplier, in accordance with the payment terms of the Agreement, only for Services satisfactorily performed prior to receipt by Supplier of notice of termination; provided, however, that such payment shall not result in a total payment to the Supplier exceeding the maximum amount payable to the Supplier pursuant to this Agreement. Termination shall not relieve Supplier of any obligation which may arise out of Services performed prior to termination. In no event shall Customer be liable to Supplier for lost profit or overhead in respect of Services not performed prior to termination, unabsorbed overhead or anticipated profits on uncompleted portions of this Agreement.

In the event Supplier is in default of any of its obligations under this Agreement, Customer shall have the right, on ten (10) days written notice to Supplier, to terminate this Agreement for such default; provided, however, that Supplier shall have the right to cure by submitting a plan acceptable to the Customer to cure the default during the ten (10) day notice period in order to avoid termination and providing that such default is, in fact, cured within thirty (30) days after Supplier first received notice of the default from Customer or some other period of time acceptable to Customer. Without limiting the provisions of this Agreement, the following events shall also constitute a default by Supplier under this Agreement:

- (i) In the event that Supplier is declared to be bankrupt or insolvent, Supplier makes an assignment for the benefit of creditors, Supplier shall file a voluntary petition in bankruptcy or insolvency or an involuntary petition is filed against Supplier, or a receiver shall be appointed for Supplier and such appointment or bankruptcy or insolvency proceedings, petition, declaration or assignment is not set aside within thirty (30) days.
- (ii) There has been a material adverse change in the financial condition of Supplier that affects the ability of Supplier to perform.
- (iii) Supplier assigns or attempts to assign its rights or obligations under this Agreement or any part thereof to any third party without the prior written consent of the Customer or Company(ies).
- (iv) Supplier (i) fails or refuses to comply with any applicable laws or regulatory or permitting requirements, and (ii) either (A) within five days after obtaining knowledge of such non-compliance does not commence steps to comply or is not in compliance with such requirements within a reasonable period of time thereafter, or (C) Company(ies) or the Customer faces any civil or criminal action or penalty as a result of such non-compliance by Supplier.
- (v) Any data breach as defined in the Data Security Rider, as applicable.

In the event of such termination, the preceding paragraph of this Article shall not apply and Customer shall have all rights and remedies provided by law or equity and under this Agreement. In addition, in such event, Customer may retain from any money otherwise due for Services rendered prior to termination an amount which Customer reasonably determines is adequate to cover all damage resulting from the Supplier's default. In the event that Supplier demonstrates that a cancellation for default is erroneous, the cancellation shall, at Customer's option, be withdrawn or be deemed to have been issued as a termination for convenience pursuant to the preceding paragraph and the rights and obligations of the parties hereto shall in such event be governed accordingly. The value of Services performed not in accordance with this Agreement shall be subject to audit, assessment and approval by Customer.

ARTICLE 28 – TERM AND SURVIVAL

This Agreement shall remain in effect unless otherwise terminated as provided herein, or upon receipt by Customer of Supplier's Release and Certificate Form and Final Payment is made as set forth in Article 30 below. Notwithstanding the foregoing, Articles 4 Payments, Article 5 Taxes, Article 7 Claims/Disputes, Article 8 Audit, Article 9 Rights, Privileges, Remedies, Article 10 Non Waiver of Rights, Article 13 Independent Suppliers, Article 14 Subcontractors, Article 16 Safety, Article 17 Accident, Security and Loss Prevention, Article 18 Insurance, Article 19 Indemnification, Article 22 Force Majeure, Article 23 Title and Liens, Article 31 Assignment, Article 36 Public Release of Information, Article 37 Limitation of Liability, Article 38 Confidentiality, Article 39 Equal Employment Opportunities Compliance, Article 41 Governing Laws, Article 47 Ethics, and all other terms which contain obligations or duties which by their nature are to be or may be performed beyond any termination hereof, shall survive the termination of this Agreement without regard to the reason for termination.

ARTICLE 29 - REMOVAL OF EQUIPMENT

In the case of termination of this Agreement for any reason whatsoever, the Supplier, if notified to do so by the Customer, shall promptly remove any part or all of Supplier's equipment and supplies from the property of the Customer, failing which the Customer shall have the right to remove such equipment and supplies at the expense of the Supplier.

ARTICLE 30 - FINAL PAYMENT

Final payment of a Purchase Order, shall not be made until successful completion and acceptance of the work by the Customer and when requested by Customer, Supplier's delivery of a completed Release and Certificate Form, the form of which shall be provided to Supplier at the time of the request.

ARTICLE 31 - ASSIGNMENT

Supplier shall not assign all or any of its rights or obligations under this Agreement except with the prior written consent of Customer. Any assignment made without such consent shall be void ab initio.

ARTICLE 32 - SEVERABILITY

If any provision of this Agreement is unenforceable under any applicable law or is held invalid, such holding shall not affect any other provision hereof, and this Agreement shall be construed as if such unenforceable or invalid provision had never been contained herein.

ARTICLE 33 - NON WAIVER OF RIGHTS

Any failure by the Customer to enforce or require the strict performance of the terms or conditions of this Agreement shall not constitute a waiver of such terms or conditions and shall not affect or impair such terms or conditions in any way.

ARTICLE 34 - OWNERSHIP OF PLANS

All drawings, plans, specifications, reports, designs, design data, technical and scientific data, findings, recommendations and memoranda of every description whether furnished to or prepared by Supplier under this Agreement shall (i) remain the Intellectual Property of Customer or Company (as applicable); (ii) be delivered to Customer upon completion of the work or termination or cancellation of this Agreement if requested by Customer, (iii) be deemed to have been prepared by Supplier for Customer on a work-made-for-hire basis, and (iv) shall be the property of Customer and may be used by Customer for any purpose whatsoever without any claim on the part of Supplier for additional compensation. To the extent any of the foregoing are not deemed a work for hire by operation of law, Supplier hereby irrevocably assigns, transfers, and conveys to the Customer without further consideration all of its right, title, and interest in such drawings, plans, specifications, reports, designs, design data, technical and scientific data, findings, recommendations and memoranda of every description, including all rights of patent, copyright, trade secret or other proprietary rights in such materials.

Except as specifically authorized by this Agreement, or as otherwise authorized in writing by Customer, information and other data developed or acquired by or furnished to the Supplier in the performance of this Agreement shall be used only in connection with the work under this Agreement.

ARTICLE 35 - KEY PERSONNEL

Personnel assigned to perform work hereunder who are designated as “Key” Personnel in this Agreement specified on ***Schedule E*** of this Agreement shall devote their working time to the work as required by the Agreement Schedule of Activities and shall not be removed, without the prior written consent of Customer, until their assignments are completed. The Customer shall have the right to reject replacements for personnel.

ARTICLE 36 - PUBLIC RELEASE OF INFORMATION

Dates, photographs, sketches, advertising and other information relating to the work under this Agreement, which Supplier desires to release or publish, shall be submitted to the Customer for approval two (2) weeks prior to the desired release date. As a part of the approval request, Supplier shall identify the specific media to be used as well as other pertinent details of the proposed release.

All releases must have the prior written approval of the Customer which approval may be withheld without reason or explanation to Supplier.

ARTICLE 37 - LIMITATION OF LIABILITY

To the fullest extent permitted by law, Customer shall not be liable for any special, indirect, punitive, exemplary, incidental or consequential damages resulting in any way from the performance of the services hereunder, including lost profits or other business interruption damages, whether based in contract, warranty, tort, negligence, strict liability, or otherwise, and whether suffered by Supplier or by any of its subcontractors, under or in respect to this Agreement or for any failure or performance related to this Agreement howsoever caused. Any damages expressly permitted under Article 24 re: liquidated damages are not deemed to be consequential damages under this Article 37.

ARTICLE 38 – CONFIDENTIALITY

Supplier, and its employees and agents, shall treat any information, (including any technical information, experience or data) regarding Customer or Customer's plans, programs, plants, processes, costs, equipment, operations, of Customer (or of Customer's Affiliates), which may be disclosed to, or come within the knowledge of, Supplier its employees and agents in the performance of this Agreement, as confidential, and will not use or disclose this information to others, during the term of this Agreement, and for three (3) years thereafter, except as is necessary to perform the Services hereunder, without Customer's prior written consent. The provisions of this Article shall not apply to any information referred to in this Section which (i) has been published and has become part of the public knowledge through no effort by Supplier, its employees, or agents, (ii) has been furnished or made known to Supplier or Supplier's affiliates by third parties (other than those acting directly or indirectly for or on behalf of Customer) as a matter of legal right and without restriction on disclosure, (iii) was in Supplier's possession prior to disclosure by Customer and was not acquired by Supplier or Supplier's affiliates, its employees and agents directly or indirectly from Customer or, (iv) is required by law or by any other governmental regulatory authority to be disclosed.

Any information, which is supplied by the Supplier to Customer, will be similarly restricted, including clauses (i) through (iv) in the paragraph above. Customer will not disclose such information to others or publish it in any form at any time; provided, however, that notwithstanding the foregoing, Customer may disclose any such information to its Affiliates, employees, and consultants, to any regulatory agencies or instrumentalities when such disclosure is necessary, or otherwise required by law.

Each Party agrees that they will cooperate with the other in an effort to minimize the amount of such information, which will be disclosed in any such case, and to make reasonable efforts to secure confidential treatment of such information.

In no event shall Customer's name and/or logo or the name and/or logo of its Affiliates be used, whether written or verbal, duplicated, reproduced by any means whatsoever without the prior written permission of the Customer.

All inquiries by any governmental, business, or other entity, including media, regarding any work performed or to be performed by Supplier for Customer shall be directed by Supplier to Customer for response.

ARTICLE 39 - EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE

To the extent, if any, that the provisions of the following executive order and statutes, as amended or supplemented, along with their implementing regulations, apply to the performance of the Services by Supplier, the Supplier will comply with the applicable executive order, statutes and regulations: Section 202 of Executive Order 11246 (41 CFR § § 60, et seq.); Section 402 of the Vietnam Era Veterans Readjustment Act (41 CFR § § 60-250.1, et seq.); Section 503 of the Rehabilitation Act of 1973 (41 CFR § § 741.1, et seq.); and New York Executive Law §§ (5 NYCRR § § 140.1, et seq.). These regulations may require the Supplier to develop an Affirmative Action Compliance Program and file a standard Form 100 Report (EEO-1), or other reports, as prescribed.

Without limiting the foregoing, the Supplier and each of its subcontractors (if any) shall abide by the requirements of 41 CFR 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability or veteran status.

ARTICLE 40 - SURETY BOND

Provided that a surety bond is commercially available for the purposes of the services to be provided hereunder, the Company shall have the right, at all times, to require the Supplier to furnish a bond covering faithful performance of this Agreement and the payment of all obligations arising hereunder (i.e., Performance Bonds, Mechanics Liens), including any damages that may be payable under Article 27. The Company shall be entitled to approve the amount, form, premium cost, and surety Company issuing such surety bond.

ARTICLE 41 - GOVERNING LAWS

The Supplier will comply with all applicable federal, state and local laws, rules, ordinances and regulations of any governmental entity, board or agency having jurisdiction over the work or the premises, including, without limitation, Federal, state, or local laws, rules and regulations and any applicable Executive Orders (state or Federal) in the performance of the Services. All questions concerning the interpretation, validity and enforceability of this Agreement and of its terms and conditions, as well as questions concerning the sufficiency or other aspects of performance under the terms or conditions of this Agreement, shall be governed by the law of the State of New York, without reference to its conflict of law provision and any action or proceeding brought in connection therewith, will be brought in the appropriate court located in the State of New York. The Parties hereby irrevocably consent to the jurisdiction of such court and hereby waive, to the fullest extent permitted by, any objection which they may now or hereafter have to the venue of any such dispute related to or arising out of this Agreement brought in such court or any defense of inconvenient forum for the maintenance of such dispute. Each Party agrees that a judgment in any such dispute may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

ARTICLE 42 - PERFORMANCE MONITORING

Customer will evaluate Supplier's performance by utilizing Supplier Corrective Action Reports and Supplier Performance Evaluation Reports. The Supplier must provide upon request the OSHA incident rate and Experience Modification Rate for Customer's review. The Customer's Project Manager will evaluate the Supplier's performance upon the conclusion of every project by completing the specified report. The Customer will continuously monitor the Supplier's performance. Performance by a Supplier that is less than desirable may potentially eliminate this Supplier from bidding on future projects and/or lump sum projects.

ARTICLE 43 - CONTINUOUS IMPROVEMENT

Continuous improvement is the foundation of this Agreement. Supplier warrants that it will pass on to Customer in the form of price reductions fifty (50) percent of Supplier's cost savings made possible by process improvements, reductions in material costs and the like. Supplier likewise will use its best efforts to improve continuously its performance in all areas. In particular, Supplier will evaluate opportunities for cost/price reductions on items and services ordered and to be ordered and communicate them promptly to Customer. Supplier has specifically identified target cost reductions of two (2) % beyond the prices shown in ***Schedule D*** for the initial term, and agrees to work diligently with Customer personnel toward attainment of this objective. Supplier is expected to advance its economies of production, service, service delivery, material handling and technical prowess at least as fast as other competitors in its industry, and to offer the price and performance benefits of those improvements to Customer, as soon as they become available.

ARTICLE 44 - NO DISPUTE

Supplier represents and warrants that it is not aware of any pending billing dispute or other contractual dispute (pursuant to current contracts or contracts no longer in effect) or any pending or threatened litigation between Supplier and/or any of Supplier's affiliates and Customer and/or and of Customer's Affiliates.

ARTICLE 45 - SECURITY REQUIREMENTS

Supplier shall comply with Customer's Security Requirements in their performance of Services as provided herein.

Services that involve access, process, storage or transmission of non-public information, the Parties agree that the Supplier and each of its subcontractors (if any) shall comply with the data security rider attached hereto as ***Schedule H*** and made a part hereof, which includes, without limitation, the following Annexes thereto:

- a) Annex 1 (the "Cyber Insurance Rider")
- b) Annex 2 (the "Third Party Lite Assessment"). For purposes of clarity, Supplier and each of its subcontractors (if any) agree to complete the Third Party Lite Assessment that assesses the Supplier's security program and maturity level; provided, however, additional questions may be required by Customer based on the answered submitted by Supplier.

ARTICLE 46 - EMPLOYEE SOLICITATION

Supplier and Customer each understand and acknowledge that the Parties have expended and continue to expend significant time and expense in recruiting and training its employees and that the loss of employees would cause significant and irreparable harm to the Parties. To the maximum extent permitted under applicable laws, the Parties agree and covenant not to directly or indirectly solicit, hire, or recruit, or attempt to solicit, hire, or recruit any employee who has been employed by the other Party or its Affiliates during the term of this Agreement, with whom a Party has had contact in connection with the negotiation, execution, or performance of this Agreement (collectively, "Covered Employee"), or induce the termination of employment of any Covered Employee for a period of one (1) year, beginning on the employee's last day of employment with the other Party or one (1) year after the term of this Agreement, whichever is sooner in the applicable case, except with the prior written consent of the other Party, and neither Party shall induce or attempt to induce, directly or through an agent or third party, any such Covered Employee to leave the employ of the other Party or its Affiliates. As used herein, the term "Affiliate" shall mean any person or entity controlling, controlled by, or under common control with a Party through majority stock or other ownership interest, direct or

indirect. Notwithstanding the foregoing, nothing in this clause shall either (i) limit a Party from employing any person who contacts such Party on his or her own initiative and without any solicitation by such Party specifically directed to such employee, or (ii) directly or indirectly prohibit or restrict either Party from soliciting or hiring another Party's current or future employees to the extent such prohibition or restriction is prohibited or impermissible under applicable laws.

ARTICLE 47 – ETHICS

Supplier shall comply with the Avangrid Suppliers' Code of Ethics ("Suppliers' Code of Ethics") in connection with its performance under this Agreement. The Suppliers' Code of Ethics can be found at the Avangrid website (www.Avangrid.com).

ARTICLE 48 – UTILIZATION OF SMALL BUSINESS CONCERNS

Supplier and subcontractors of all tiers must comply with section 52.219-8 of the Federal Acquisition Regulation. This policy requires that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, women-owned small business, Alaskan Native Corporation, and Indian tribe concerns shall have the maximum practicable opportunity to participate in the performance of Services.

ARTICLE 49 – SMALL BUSINESS SUBCONTRACTING PLAN

Some or all of the Goods and Services provided hereunder may be used in a contract with the Federal government and, therefore, may be subject to the requirements of FAR section 52.219-9. If applicable, each Supplier (except small business concerns) whose contract is expected to exceed \$650,000 (\$1,500,000 for construction) and has subcontracting possibilities is required to submit an acceptable subcontracting plan to the Customer. The plan shall include spending goals with businesses that are defined by the U.S. Small Business Administration as small, women-owned small, veteran-owned small, service-disabled veteran-owned small, HUBZone, small disadvantaged (SDB), Alaskan Native Corporations, and Indian tribes. If the Supplier fails to submit a plan within the time limit prescribed by the Customer, Customer may terminate this Agreement.

The Supplier assures that the clause entitled "Small Business Subcontracting Plan" will be included in all subcontracts, that offer further subcontracting opportunities, and all subcontractors (except small business concerns) who receive subcontracts in excess of \$650,000 (\$1,500,000 for construction) will be required to adopt a plan similar to this plan.

ARTICLE 50 - GRATUITIES PROHIBITED

The Supplier shall not, under any circumstances, offer or extend any gratuity or special favor to any employee or agent of the Customer or its Affiliates or do anything which might reasonably be interpreted as an attempt to influence any employee or agent of the Customer in the conduct of their duties.

SCHEDULE D

Pricing Terms

1. Prices are from the Field Construction Management FA tender, BAFO Round submission file “FCM FA – Bid Form V.3.0 – Submittal 20210423.xlsx”. Prices shall remain firm for orders placed during the term of this Agreement.
2. Pricing governs the Electric and Gas services which the supplier is awarded.
3. Payment Terms are Net 60 days from date of invoice.

SCHEDULE E Special Conditions

Performance Measurements

Periodically, Customer may require Review Meetings to discuss supplier performance. Topics of discussion may include, but are not limited to; lead-time, order accuracy, pricing, quality and customer service. Unsatisfactory performance may result in the development of a Supplier performance improvement plan.

Training

Where applicable, Supplier shall provide annual on-site training, at no additional cost. Training shall be held at each Company location.

SCHEDULE F Notices

Along with all other correspondence requirements included in this Agreement, any notice, request, approval or other document required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been sufficiently given when delivered in person or deposited in the U.S. Mail, postage prepaid, addressed as specified herein or to such other address or addresses as may be specified from time to time in a written notice given by such Party, or when email notice has been given with an acknowledgement given by the appropriate Party representative. The Parties shall acknowledge in writing the receipt of any such notice delivered in person.

All communications to **Customer** shall be directed to:

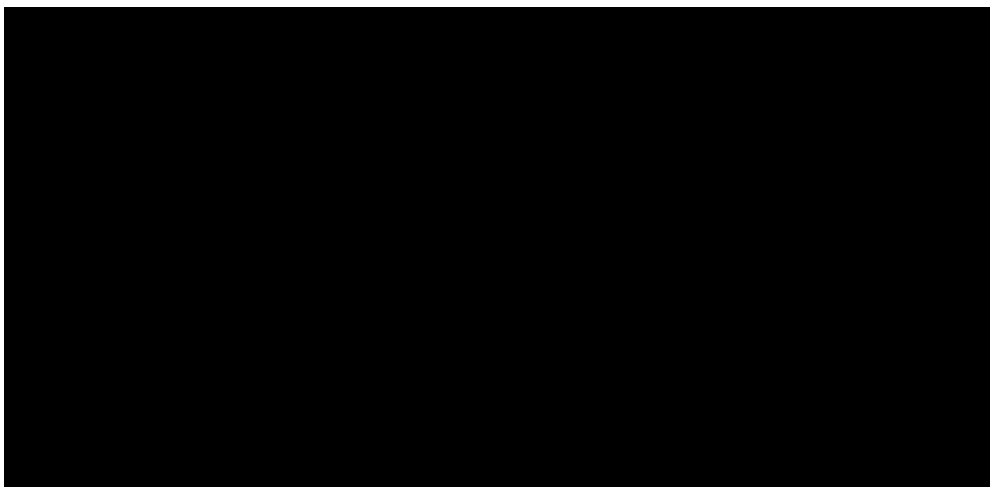
Avangrid Service Company

Contract Administration
89 East Avenue
Rochester, NY 14649
Phone: 585-724-8028
Fax: 585-771-2820

With Copy To :

Avangrid Service Company

Process and Technology
180 South Clinton Avenue
Rochester, NY, 14604
Attention: Brian Alexandra
Phone: 607-644-2559
Email: balexander@rge.com



SCHEDULE G Insurance Requirements

Before commencing Services, the Supplier shall procure and maintain at its own expense for a period of two years beyond completion of the Services, the insurance types, limits, terms, and conditions listed in Section 1 below. The amounts as specified are minimums only and in no way limit the indemnification obligations of the Supplier. The actual amounts above the minimums shall be determined by the Supplier. In addition, for any Services that are authorized to be subcontracted, the Supplier shall require each subcontractor to procure and maintain all insurance as outlined below.

IF YOU DO NOT HAVE A CURRENT CERTIFICATE ON FILE WITH CUSTOMER prior to commencement of Services, Certificates of Insurance evidencing Supplier's and/or subcontractor's possession of insurance as outlined in Section 1 shall be filed with Customer and the Companies for its review.

Certificates of Insurance should be mailed to the Procurement Department at the following address:

Avangrid Service Company

Contract Administration
89 East Avenue
Rochester, NY 14649
Phone: 585-724-8028
Fax: 585-771-2820

With Copy To :

Avangrid Service Company

Process and Technology
180 South Clinton Avenue
Rochester, NY, 14604
Attention: Brian Alexandra
Phone: 607-644-2559
Email: balexander@rge.com

A. General Insurance Requirements

Each insurance policy shall:

- 1) be placed with an insurance company licensed to write insurance in the State where the Services are to be performed and shall have an A.M. Best Rating of not less than "A- VII" and a policyholder surplus of at least \$25,000,000.
- 2) have defense costs outside of the limits of liability;
- 3) add Customer and its Affiliates as additional insureds except of any required professional liability coverage, which shall name Customer and its Affiliates as indemnified parties;
- 4) not preclude Customer or its Affiliates from making claims against the policy for the wrongful acts, omissions or other tortious conduct of the Supplier/Consultant/Labor Supplier;

- 5) provide Customer with 30-day notice of cancellation, except for non-payment of premium and then it shall be 10 days;
- 6) notify Customer of any reduction in the aggregate policy limits;
- 7) contain a breach of warranty clause;
- 8) be primary and non-contributory with respect to Customer and its Affiliates;
- 9) contain a waiver of subrogation in favor of Customer and its Affiliates;
- 10) contain a separation of insureds clause;
- 11) contain a terrorism provision; and
- 12) contain a choice of law provision that states that the policy shall be governed by the State in which the Services are being performed.

B. Required Coverages

1) Workers' Compensation and Employers' Liability Insurance:

Coverage A: Statutory

Coverage B: Limits apply per issued annual policy

Bodily Injury by Accident - \$500,000 each Accident

Bodily Injury by Disease - \$500,000 each Employee

Bodily Injury by Disease - \$500,000 Policy Limit

Policy Information Page Requirements:

Item 1 – First Named Insured and Other Named Insureds

Item 3.A. – State(s) of Operations

Item 3.C. – All Other States Except Monopolistic States

Endorsements:

Voluntary Compensation – WC 00 03 11 A

Alternate Employer – WC 00 03 01 A

FELA – If any basis

Maritime – If any basis

USL&H – If any basis

2) Automobile Liability

Combined Single Limit - \$5,000,000 (limits in excess of \$1M can be satisfied by umbrella/excess coverage)

Uninsured/Underinsured – Minimum allowed by State law

Hired/Non-owned liability - \$5,000,000

Symbol – 1

Endorsements:

Employees as Insureds

Fellow Employee Coverage
MCS 90
CA 9948

- 3) General Liability: ISO Form CG 00 01 or its functional equivalent
Per Occurrence - \$1,000,000
General Aggregate - \$2,000,000
Products Completed - \$2,000,000
Personal and Advertising Injury - \$1,000,000

Endorsements:

Contractual Liability Amendment
Explosion, Collapse, Underground Coverage
Independent Contractors Coverage
Broad Form Property Damage
No Punitive or Exemplary Damages Exclusion
No Subsidence Exclusion

- 4) Umbrella/Excess Liability: Written on a Follow Form Basis and Worldwide Coverage
Per Occurrence - \$5,000,000
General Aggregate - \$5,000,000
Products/Completed Operations - \$5,000,000
Personal & Advertising Injury - \$5,000,000

Underlying Policies: Commercial General Liability, Auto Liability, Employer's Liability

- 5) Contractor's Pollution Liability
Per Occurrence - \$5,000,000
Policy Aggregate - \$5,000,000

Coverage:

Environmental Impairment Liability
Bodily Injury, sickness, disease, mental anguish or shock sustained by any person, including death and mental anguish
Property Damage including physical injury or destruction of tangible property including resulting loss of use, clean-up costs, and loss of use of tangible property that has not been physically injured or destroyed
Disposal site coverage and transportation extensions
Underground storage tanks
Loss, remediation, clean-up costs and related legal expenses
Sudden and non-sudden pollution conditions

No exclusion for loss occurring over water including but not limited to a navigable waterway

Endorsements:

Extended Completed Operations – 10 years

6) Professional Liability:

Per Claim - \$5,000,000

Policy Aggregate - \$5,000,000

Mitigation of Loss/Rectification - \$5,000,000

Coverage:

Extended Reporting Period – 120 months

Retroactive Date – Date of first design

No Exclusion for environmental impairment liability

No Exclusion for punitive damages to the extent insurable

SCHEDULE H Data Security Rider

Please see separate document



AVANGRID Privacy and Data Security Rider

This Privacy and Data Security Rider (the "Rider") is entered by [REDACTED] ("VENDOR") and **Avangrid Service Company**. For the purposes of this Rider **Avangrid Service Company** and any of its affiliates procuring or receiving services, works, equipment or materials under the Agreement shall be hereinafter referred to as the "CUSTOMER".

(a) Among other, the purpose of this Rider is to enable the VENDOR to Process on behalf of the CUSTOMER the Personal Data and Company Data necessary to comply with the purpose of the "Agreement" (as defined below), define the conditions under which the VENDOR will Process the Personal Data and Company Data to which it has access during the execution of the Agreement, and establish the obligations and responsibilities of the VENDOR derived from such Processing.

(b) The following definitions are relevant to this Rider:

(i) "Personal Data" means any information about an individual, including an employee, customer, or potential customer of CUSTOMER or its affiliates, including, without limitation: (A) any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, biometric records, personal electronic mail address, internet identification name, network password or internet password; (B) "Sensitive Personal Data" as defined below; or (C) any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information, as well as cookie information and usage and traffic data or profiles, that is combined with any of the foregoing.

(ii) "Sensitive Personal Data" is that subset of Personal Data, including social security number, passport number, driver's license number, or similar identifier, or credit or debit card number, whose unauthorized disclosure or use could reasonably entail enhanced potential risk for the individual.

(iii) "Company Data" means any and all information concerning CUSTOMER and its affiliates and their respective business in any form, or to which the CUSTOMER or its affiliates have access, that requires reinforced protection measures, including but not limited to private or secret information, Personal Data, Cardholder Data, commercially sensitive information, Critical Infrastructure Information, strategic business information, credentials, encryption data, system and application access logs, or any other information that may be subject to regulation.

(iv) "Critical Infrastructure Information" means engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure (physical or virtual) that (A) relates details about the production, generation, transmission, or distribution of energy; (B) could be useful to a person planning an attack on critical infrastructure; (C) is exempt from mandatory disclosure under the Freedom of Information Act; and (D) gives strategic information beyond the location of the critical infrastructure.

(v) "Processing" (including its cognate, "process") means any operation, action, error, omission, negligent act, or set of operations, actions, errors, omissions, or negligent acts that is

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performed upon Personal Data or Company Data, whether or not by automatic means, including, without limitation, collection, recording, organization, storage, access, adaptation, alteration, retrieval, consultation, retention, use, disclosure, dissemination, exfiltration, taking, removing, copying, making available, alignment, combination, blocking, deletion, erasure, or destruction.

(vi) “Data Security Breach” means: (A) the loss or misuse (by any means) of Personal Data or Company Data; (B) the inadvertent, unauthorized and/or unlawful Processing, corruption, modification, transfer, sale or rental of Personal Data or Company Data; or (C) any other act, omission or circumstance that compromises the security, confidentiality, or integrity of Personal Data or Company Data, including but not limited to incidents where Personal Data or Company Data has been damaged, lost, corrupted, destroyed, or accessed, acquired, modified, used, or disclosed by any unauthorized person, by any person in an unauthorized manner, or for an unauthorized purpose.

(vii) “Technical and Organizational Measures” means security measures, consistent with the type of Personal Data or Company Data being Processed and the services being provided by VENDOR, to protect Personal Data or Company Data, which measures shall implement industry accepted protections which may include physical, electronic and procedural safeguards to protect the Personal Data or Company Data supplied to VENDOR against any Data Security Breach, and any security requirements, obligations, specifications or event reporting procedures set forth in this Rider or in any Schedule to this Rider. As part of such security measures, VENDOR shall provide a reasonably secure environment for all Personal Data and Company Data and any hardware and software (including servers, network, and data components) to be provided or used by VENDOR as part of its performance under the Agreement.

(viii) “Losses” shall mean all losses, liabilities, damages, and claims and all related or resulting costs and expenses (including, without limitation, reasonable attorneys’ fees and disbursements and costs of investigation, litigation, settlement, judgment, interest and penalties).

(ix) “Agreement” shall mean the Master Services Procurement Agreement, Master Materials Agreement or other agreement between CUSTOMER and VENDOR with respect to which this Rider is being entered.

(c) Personal Data and Company Data shall at all times remain the sole property of CUSTOMER, and nothing in this Rider or the Agreement will be interpreted or construed as granting VENDOR any license or other right under any patent, copyright, trademark, trade secret, or other proprietary right to Personal Data or Company Data. VENDOR shall not create or maintain data which are derivative of Personal Data or Company Data except for the purpose of performing its obligations under the Agreement and this Rider and as authorized by CUSTOMER.

(d) Regarding the Processing of Personal Data and Company Data, the parties agree that:

(i) VENDOR shall Process Personal Data and Company Data only on the instruction of CUSTOMER and in accordance with the Agreement, this Rider and privacy and security laws applicable to VENDOR’s services or VENDOR’s possession or Processing of Personal Data and Company Data.

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CUSTOMER hereby instructs VENDOR, and VENDOR hereby agrees, to Process Personal Data and Company Data only as necessary to perform VENDOR's obligations under the Agreement and as further described below and for no other purpose. For the avoidance of doubt, (i) VENDOR shall not Process Personal Data or Company Data for any commercial purpose other than providing the services specified in the Agreement nor for any purpose outside the scope of the Agreement; and (ii) selling, renting, releasing, disclosing, disseminating, making available, transferring, or otherwise communicating orally, in writing, or by electronic or other means, Personal Data or Company Data for valuable consideration is prohibited.

(ii) With regards to Personal or Company, the parties agree that:

- The Processing activities that will be carried out by VENDOR are: copies, deletes, reads, received, stores and updates.
- The categories of Personal or Company Data that will be Processed by VENDOR are: Public, Internal Use and Confidential in nature.
- The categories of Personal Data subjects whose information will be processed by VENDOR are: engineering specifications, drawings, technical documentation and electrical equipment data sheets.
- The instructions for the Processing of Personal or Company Data are: VENDOR may process data with the least privilege necessary for the implementation and execution of activities on AVANGRID's premises and remotely within the US.

(iii) VENDOR shall immediately inform the CUSTOMER if in VENDOR's opinion a Processing instruction given by CUSTOMER may infringe the privacy and security laws applicable to VENDOR's services or VENDOR's possession or Processing of Personal Data or Company Data.

(iv) In the event that the activities to be carried out by VENDOR under the Agreement do not require access to Personal Data, VENDOR, its employees and representatives shall be prohibited from accessing and Processing Personal Data. If they gain access to Personal Data, VENDOR shall immediately inform CUSTOMER. Notwithstanding the foregoing, any Processing of Personal Data by VENDOR shall be subject to the terms and conditions set forth in this Rider.

(e) As a condition to starting work, VENDOR's employees and other persons authorized, pursuant to the terms of this Rider, to Process Personal Data or Company Data shall acknowledge in writing their agreement to (i) comply with the terms of CUSTOMER's Acceptable Use Requirements set forth in Schedule C hereto, as such Acceptable Use Requirements may be modified or supplemented from time-to-time upon notice from the CUSTOMER, (ii) maintain the confidentiality of Personal Data and Company Data, and (iii) comply with any applicable Technical and Organizational Measures. In addition, VENDOR's employees and other authorized persons that access CUSTOMER's premises shall abide by CUSTOMER's physical security policies, rules and procedures.

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(f) At all times during which VENDOR is Processing Personal Data or Company Data, VENDOR shall:

(i) Comply with all applicable privacy and security laws to which it is subject, or that are applicable to VENDOR's services or VENDOR's possession or Processing of Personal Data and/or Company Data, and not, by act or omission, place CUSTOMER or its affiliates in violation of any privacy or security law known by VENDOR to be applicable to them;

(ii) With regards to the Processing of Personal Data, maintain a record of Personal Data Processing activities carried out on behalf of CUSTOMER, which shall include at least:

(A) The name and contact details of the VENDOR, any subcontractor, where applicable and as previously authorized by CUSTOMER, the CUSTOMER on whose behalf the VENDOR is Processing Personal Data, their respective representatives and, where applicable, the data protection officer;

(B) The categories of Processing activities carried out on behalf of CUSTOMER;

(C) Where applicable, international transfers of Personal Data to a third country or international organization, identifying the third country or international organization, and identification of appropriate safeguards;

(D) A general description of the appropriate Technical and Organizational Measures that VENDOR is implementing relating to:

- The ability to ensure the continued confidentiality, integrity, availability and resilience of Personal Data Processing systems and services;
- The ability to quickly restore availability and access to Personal Data in the event of a physical or technical incident; and
- A process of regular verification, evaluation and assessment of the effectiveness of Technical and Organizational Measures to ensure the security of the Personal Data Processing;
- Pseudonymization and encryption of Personal Data;

(iii) Have in place appropriate and reasonable Technical and Organizational Measures to protect the security of Personal Data and Company Data and prevent a Data Security Breach, including, without limitation, a Data Security Breach resulting from or arising out of VENDOR's internal use, Processing or other transmission of Personal Data and Company Data, whether between or among VENDOR's subsidiaries and affiliates or any other person or entity acting on behalf of VENDOR. VENDOR shall implement Technical and Organizational Measures to ensure a level of security

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appropriate to the risk, taking into account the state-of-the-art, the costs of implementation, and the nature, scope, context and purposes of Processing, as well as, in connection with Personal Data, the risks of varying likelihood and severity for the rights and freedoms of data subjects. Without limiting the generality of the foregoing, the VENDOR will implement measures to:

- (A) Ensure the continued confidentiality, integrity, availability and resilience of Processing systems and services;
- (B) Quickly restore availability and access to Personal Data and Company Data in the event of a physical or technical incident;
- (C) Verify and evaluate, on a regular basis, the effectiveness of the Technical and Organizational Measures implemented;
- (D) Pseudonymize and encrypt Personal Data, where applicable; and
- (E) Safely secure or encrypt all Sensitive Personal Data, Critical Infrastructure Information and other information that relates to the operation or functionality of plants, factories, networks, or grids of the CUSTOMER or its affiliates or to which they have access, during storage or transmission;

(iv) Except as may be necessary in connection with providing services to CUSTOMER (and provided that immediately upon the need for such Personal Data and Company Data ceasing, such Personal Data or Company Data is immediately destroyed or erased), not use or maintain any Personal Data or Company Data on a laptop, hard drive, USB key, flash drive, removable memory card, smartphone, or other portable device or unit; and ensure that any such portable device or unit is encrypted.

(v) Notify CUSTOMER no later than one (1) day from the date of obtaining actual knowledge of any Data Security Breach, or from the date the VENDOR reasonable believes that a Data Security Breach has taken place, whatever is earlier, and at VENDOR's cost and expense, assist and cooperate with CUSTOMER concerning any disclosures to affected parties and other remedial measures as requested by CUSTOMER or required under applicable law. If the Data Security Breach involves Personal Data, the following information shall be provided as a minimum:

- (A) Description of the nature of the Data Security Breach, including, where possible, the categories and approximate number of data subjects affected, and the categories and approximate number of Personal Data records affected;
- (B) Contact details of the data protection officer of the VENDOR, where applicable, or other contact person for further information;
- (C) Description of the possible consequences of the Data Security Breach or

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violations; and

(D) Description of the measures taken or proposed to remedy the Data Security Breach, including, where appropriate, the measures taken to mitigate possible negative effects;

(vi) Assist and cooperate with CUSTOMER to enable CUSTOMER to comply with its obligations under any applicable privacy or security law, including but not limited to maintaining Personal Data and Company Data secured, responding to Data Security Breaches, and, where applicable, ensuring the rights of data subjects and carrying out Personal Data impact assessments;

(vii) Inform the CUSTOMER, if, where applicable, data subjects exercise their rights of access, rectification, erasure or objection, restriction of processing, data portability and not to be the subject to automated decisions by the VENDOR. The communication must be made immediately and in no case later than one (1) business day following the receipt of the request by VENDOR. VENDOR shall assist CUSTOMER, taking into account the nature of the Personal Data Processing, through appropriate Technical and Organizational Measures, and with any information that may be relevant to the resolution of the request;

(viii) Not use independent contractors or provide Personal Data or Company Data to independent contractors or other personnel that are not full-time employees of VENDOR without CUSTOMER's prior written approval;

(ix) Not disclose Personal Data or Company Data to any third party (including, without limitation, VENDOR's subsidiaries and affiliates and any person or entity acting on behalf of VENDOR) unless with respect to each such disclosure: (A) the disclosure is necessary in order to carry out VENDOR's obligations under the Agreement and this Rider; (B) VENDOR executes a written agreement with such third party whereby such third party expressly assumes the same obligations set forth in this Rider; (C) VENDOR has received CUSTOMER's prior written consent; (D) the Processing is carried out in accordance with the instructions of CUSTOMER, and (D) VENDOR shall remain responsible for any breach of the obligations set forth in this Rider to the same extent as if VENDOR caused such breach;

(x) Not permit any officer, director, employee, agent, other representative, subsidiary, affiliate, independent contractor, or any other person or entity acting on behalf of VENDOR to Process Personal Data or Company Data unless such Processing is in compliance with this Rider and is necessary to carry out VENDOR's obligations under the Agreement and this Rider. Personal Data and Company Data shall only be accessed by persons who need access to carry out VENDOR's obligations under the Agreement and this Rider and in accordance with the instructions of CUSTOMER; VENDOR shall provide appropriate privacy and security training to its employees and those persons authorized to Process Personal Data or Company Data.

(xi) Establish policies and procedures to provide all reasonable and prompt assistance to CUSTOMER in responding to all requests, complaints, or other communications received from any

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individual who is or may be the subject of any Personal Data Processed by VENDOR to the extent such request, complaint or other communication relates to VENDOR's Processing of such Personal Data;

(xii) Establish policies and procedures to provide all reasonable and prompt assistance to CUSTOMER in responding to any and all requests, complaints, or other communications received from any individual, government, government agency, regulatory authority, or other entity that is or may have an interest in the Personal Data or Company Data, exfiltration of Personal Data or Company Data, disclosure of Personal Data or Company Data, or misuse of Personal Data or Company Data to the extent such request, complaint or other communication relates to VENDOR's Processing of such Personal Data or Company Data;

(xiii) Not transfer any Personal Data or Company Data across a country border, unless directed to do so in writing by CUSTOMER, and VENDOR agrees that CUSTOMER is solely responsible for determining that any transfer of Personal Data or Company Data across a country border complies with the applicable laws and this Rider;

(g) At the time of the execution of this Rider, and at any time, upon CUSTOMER's request, VENDOR shall provide evidence that it has established and maintains Technical and Organizational Measures governing the Processing of Personal Data and Company Data appropriate to the Processing and to the nature of the Personal Data and Company Data.

(h) To the extent VENDOR maintains Personal Data and Company Data at its location, CUSTOMER shall have the right to conduct onsite inspections and/or audits (with no advance notice to VENDOR) of VENDOR's information security protocols, and VENDOR agrees to cooperate with CUSTOMER regarding such inspections or audits; provided, any such inspections or audits shall be conducted during normal business hours and in a manner so as to minimize any disruptions to VENDOR's operations. VENDOR will promptly correct any deficiencies in the Technical and Organizational Measures identified by CUSTOMER to VENDOR;

(i) VENDOR shall keep and make accessible to CUSTOMER, at any time, upon CUSTOMER's request, documentation that evidences compliance with the terms of this Rider. CUSTOMER may conduct audits and inspections, either directly or through a third party, and VENDOR agrees to cooperate with CUSTOMER regarding such audits;

(j) VENDOR shall cease Processing Personal Data and Company Data and return, delete, or destroy, or cause or arrange for the return, deletion, or destruction of, all Personal Data and Company Data subject to the Agreement and this Rider, including all originals and copies of such Personal Data and Company Data in any medium and any materials derived from or incorporating such Personal Data and Company Data, upon the expiration or earlier termination of the Agreement, or when there is no longer any legitimate business need (as determined by CUSTOMER) to retain such Personal Data and Company Data, or otherwise on the instruction of CUSTOMER, but in no event later than ten (10) days from the date of such expiration, earlier termination, expiration of the legitimate business need, or instruction. If applicable law prevents or precludes the return or destruction of any Personal Data or Company Data, VENDOR shall notify CUSTOMER of such reason for not returning or destroying such

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Personal Data and Company Data and shall not Process such Personal Data and Company Data thereafter without CUSTOMER's express prior written consent. VENDOR's obligations under this Rider to protect the security of Personal Data and Company Data shall survive termination of the Agreement.

(k) To the extent that VENDOR is afforded regular access in any way to "Cardholder Data" as defined below and for so long as it has such access, the following requirements shall apply with respect to the Cardholder Data; provided, that the parties do anticipate that VENDOR will have access to any Cardholder Data:

(i) VENDOR represents that it is presently in compliance and will remain in compliance with the Payment Card Industry Data Security Standard ("PCI Standard"), and all updates to PCI Standard, developed and published jointly by American Express, Discover, MasterCard and Visa ("Payment Card Brands") for protecting individual credit and debit card account numbers ("Cardholder Data").

(ii) VENDOR acknowledges that Cardholder Data is owned exclusively by CUSTOMER, credit card issuers, the relevant Payment Card Brand, and entities licensed to process credit and debit card transactions on behalf of CUSTOMER, and further acknowledges that such Cardholder Data may be used solely to assist the foregoing parties in completing a transaction, supporting a loyalty program, providing fraud control services, or for other uses specifically required by law, the operating regulations of the Payment Card Brands, or this Agreement.

(iii) To the extent Cardholder Data is regularly maintained on the premises or property of VENDOR, VENDOR shall maintain a business continuity plan addressing the possibility of a potential disruption of service, disaster, failure or interruption of its ordinary business process, which business continuity plan provides for appropriate back-up facilities to ensure VENDOR can continue to fulfill its obligations under the Agreement.

(iv) VENDOR agrees that, in the event of a Data Security Breach arising out of or relating to VENDOR's premises or equipment contained thereon, VENDOR shall afford full cooperation and access to VENDOR's premises, books, logs and records by a designee of the Payment Card Brands to the extent necessary to perform a thorough security review and to validate VENDOR's compliance with the PCI Standards; provided, that such access that be provided during regular business hours and in such a manner so as to minimize the disruption of VENDOR's operations.

(l) VENDOR represents that the security measures it takes in performance of its obligations under the Agreement and this Rider are, and will at all times remain, at the highest of the following: (a) Privacy & IT Security Best Practices (as defined by ISO 27001/27002); and (b) any security requirements, obligations, specifications, or event reporting procedures set forth in Schedule A.

(m) In addition to any other insurance required to be provided by VENDOR hereunder, VENDOR shall also provide the Cyber-Insurance coverage meeting the requirements specified in Schedule B, attached hereto and made part hereof. VENDOR shall also comply with the terms and

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conditions in Schedule B as they relate to any insurance required to be provided by VENDOR pursuant to this Agreement.

(n) Notwithstanding anything in the Agreement or this Rider to the contrary, VENDOR shall indemnify, defend and hold CUSTOMER, its affiliates, and their respective employees, officers, representatives and contractors, harmless from and against all Losses caused by, resulting from, or attributable to VENDOR's breach or violation of applicable laws, regulations or any of the terms and conditions of this Rider. VENDOR's obligation to indemnify, defend, and hold harmless shall survive termination or expiration of the Agreement and this Rider.

(o) Failure by VENDOR to comply with any requirement of this Rider shall constitute a material breach of the Agreement and a VENDOR default thereunder. CUSTOMER shall be allowed to terminate the Agreement, and CUSTOMER shall have all rights and remedies provided by law or equity under the Agreement and this Rider.

[Signature page follows]





AVANGRID Privacy and Data Security Rider

Schedule A

General Security Requirements

(a) The following definitions are relevant to this General Security Requirements Schedule:

(i) "Cyber-infrastructure" means electronic information and communication systems and services, as well as the information contained therein. These systems, both those housed within facilities as well as those that are cloud-based, be they proprietary or third-party, in any manner, are comprised of hardware and software for processing (creating, accessing, modifying and destroying), storing (on magnetic, electronic or other formats) and sending (shared use and distribution) information, or any combination of said elements that include any type of electronic device such as, without limitation, standard computers (desktop/laptop) with internet connections, digital storage methods used on computers (e.g. hard drives), mobiles, smartphones, personal digital assistants, data storage media, digital and video cameras (including CCTV), GPS systems, etc.

(ii) "Protected Information" means Personal Data and Company Data as defined in the Rider.

(iii) Capitalized terms not otherwise defined in this Schedule shall have the meaning set forth in the Rider.

(b) VENDOR must, always, know the level of information protection that should be afforded to the Protected Information as well as the corresponding standards and applicable laws and regulations, and it shall adopt the Technical and Organizational Measures adequate thereto. VENDOR shall, at least, maintain Technical and Organizational Measures consistent with the type of Protected Information being processed and the services being provided by VENDOR, to secure Protected Information, which measures shall implement industry accepted protections which include physical, electronic and procedural safeguards to protect the Protected Information supplied to VENDOR against any Data Security Breach or other security incident, and any security requirements, obligations, specifications or event reporting procedures set forth in the Agreement, the Rider or this Schedule. As part of such security measures, VENDOR shall provide a secure environment for all Protected Information and any hardware and software (including servers, network, and data components) to be provided or used by VENDOR as part of its performance under the Agreement on which Protected Information is contained.

(c) When the scope of the Agreement implies the use or connection of VENDOR's Cyber-infrastructure to that of CUSTOMER, the VENDOR shall have reasonable Technical and Organizational Measures for its protection and for the prevention of any security incident.

(i) The connection between the CUSTOMER's and the VENDOR's network is not permitted, unless expressly agreed to in writing, in which case it must be done by establishing encrypted and authenticated virtual private networks, and the number of interconnection points between the two

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networks must be the minimum that is compatible with the required level of availability. The connection to the VENDOR's network shall be removed as soon as there is no need for it.

(ii) Direct user connections from the VENDOR to CUSTOMER's network are not permitted, unless authorized in writing by CUSTOMER and only for a limited period of time.

(iii) If the Agreement is fully or partially performed at the VENDOR's premises or property, the VENDOR must establish mechanisms and procedures for physical access to said premises or property to prevent unauthorised persons from accessing Cyber-infrastructure or Protected Information.

(d) VENDOR shall establish mechanisms and procedures for identifying, authenticating and controlling logical access necessary to prevent unauthorised persons from accessing its Cyber-infrastructure elements and CUSTOMER's Protected Information, and, in particular:

(i) VENDOR will have procedures based on the principle of least privilege when granting, assigning and withdrawing authorized access and permissions to its personnel or the personnel of its subcontractors, where applicable, including privileged users or administration taking into account the need for the use, the confidentiality of the Protected Information and the resources for the performance of their tasks;

(ii) VENDOR will maintain an updated inventory of the access granted and will withdraw access from personnel who cease working in connection with the Agreement within a period of less than twenty-four (24) hours. Credentials must always be encrypted when stored and transmitted; and

(iii) VENDOR shall have policies and procedures that ensure the strength of the passwords and that they are updated regularly. Passwords shall be changed during the installation processes of new hardware or software. VENDOR's default passwords shall be changed.

(e) VENDOR shall implement Technical and Organisational Measures necessary to ensure operational continuity under applicable service level agreements (including but not limited to contingency plans, backup and recovery procedures). In particular:

(i) VENDOR shall make backup copies of the Protected Information as frequently as is required for the services being provided by VENDOR and according to the nature of the data, establishing the appropriate procedures and mechanisms to ensure that the data can be retrieved, that only authorised VENDOR personnel can access it and that they are transferred and stored in such a way as to prevent access or manipulation by unauthorised persons; and

(ii) The same security measures shall apply to backups as to the original Protected Information.





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(f) In the event that CUSTOMER has expressly authorized VENDOR to use its own IT equipment for accessing CUSTOMER's Cyber-infrastructure, the VENDOR shall guarantee and undertake that there are adequate security measures to protect the stationary or portable IT equipment and mobile devices used to access such Cyber-infrastructure or for storing, processing or transmitting the Protected Information, including but not limited to:

(i) Automatic locking if the device is left unattended for a certain period of time. User authentication will be required for unlocking.

(ii) Protection against malicious software and known vulnerabilities.

(iii) Updating the operating system as often as the vendor requires.

The VENDOR shall maintain an action procedure should the equipment or device be lost or stolen, ensuring, to the maximum extent possible that the event be communicated promptly, Protected Information be deleted safely in accordance with recognised standards, and access to CUSTOMER's systems or systems containing CUSTOMER's Protected Information be suspended.

Before equipment is reused or replaced, the VENDOR must protect, or if applicable remove, all the Protected Information stored on it, ensuring that unauthorised personnel or third parties cannot access or recover it.

(g) The VENDOR shall establish adequate procedures to guarantee protection against loss or unauthorised processing of files, computer media and paper documents containing Protected Information and guarantee that they are destroyed when the reasons for their creation no longer apply. Extracting data from a file and downloading it to a server or delivering it electronically is considered equivalent to computer media for the purposes of complying with these measures.

AVANGRID may request information concerning any Processing of Protected Information by the VENDOR.

(h) The VENDOR shall include security measures appropriate to the nature of the Protected Information Processed in developing, maintaining and testing the equipment that will be used to perform the services being provided by VENDOR. The VENDOR will adopt secure code development standards and ensure that no real data is used in test environments. If necessary, CUSTOMER's express written authorisation will be required, and the same security measures required for the work environment will be applied to these test environments.

(i) When the scope of the Agreement includes the supply of equipment and/or materials, the VENDOR shall prove that best security practices and standards have been applied for the design, fabrication, maintenance, and, where applicable, installation of the supplied equipment and/or materials, including its components.

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For any such equipment and/or materials with information processing capacity or network connectivity options:

(i) The VENDOR shall provide evidence or certificates that guarantee design security, firmware/software updates and malware protection.

(ii) The VENDOR shall conduct periodic analyses of vulnerabilities and inform CUSTOMER about any necessary updates, especially those that affect security.

(iii) All internet connected devices shall be protected with adequately complex passwords that can be changed by CUSTOMER.

(iv) The configuration of devices, equipment and materials shall be adjustable exclusively according to AVANGRID's needs, and any unnecessary functionality deactivated. Should the VENDOR conduct any configuration, documentation to that effect shall be provided.

(j) VENDOR should fully implement the mitigation actions available on the APTs Targeting IT Service Provider CUSTOMERS site page to protect against this malicious activity. VENDOR should implement the following specific actions:

(i) Apply the principle of least privilege to their environment, which means customer data sets are separated logically, and access to client networks is not shared;

(ii) Implement robust network and host-based monitoring solutions that looks for known malicious activity and anomalous behavior on the infrastructure and systems providing client services;

(iii) Ensure that log information is aggregated and correlated to enable maximum detection capabilities, with a focus on monitoring for account misuse; and

(iv) Work with CUSTOMER to ensure hosted infrastructure is monitored and maintained, either by the service provider or the client.

(k) The VENDOR shall implement a procedure to notify of and manage any Data Security Breach or security incidents, which it will disclose among its Personnel, and will act with special diligence in those cases involving critical elements of CUSTOMER's Cyber-infrastructure or Protected Information or when the reputation or legal responsibility of CUSTOMERS or the interests of the persons whose information is Processed may be affected.

(l) The Supplier shall immediately notify CUSTOMER of the existence of any security incident, even if it does not qualify as Data Security Breach, always within a maximum period of one (1) day after becoming aware of it, or if shorter, the shortest legal period, and shall assist and cooperate with CUSTOMER in terms of any necessary communication to third parties and other reasonable measures to remedy the situation when CUSTOMER requests it or as required by law.

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Merely by way of example, the Supplier shall notify CUSTOMER the following:

- (i) Access or attempts to access systems, equipment, applications, files, repositories, devices etc. by unauthorised persons or programs.
- (ii) Disclosing or compromising protected Information including but not limited to credentials, authentication or encryption data.
- (iii) Total or partial loss of data or information for any reason.
- (iv) Uncontrolled distribution: sending information to people who should not receive it.
- (v) Loss or removal of computer equipment or storage media, files, repositories or part of their contents.
- (vi) Attacks caused by viruses / malicious software that may affect the exchange of information between the VENDOR and CUSTOMER.
- (vii) Others: any irregularity or deficiency detected regarding compliance with the safety criteria indicated in this Schedule.





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Schedule B

Cyber-Insurance Requirements

(a) VENDOR shall during the term of the Agreement have and maintain the following insurance coverage:

(i) Cyber Errors and Omissions Policy providing coverage, on a per occurrence basis, for acts, errors, omissions, and negligence of employees and contractors giving rise to potential liability, financial and other losses relating to data security and privacy, including cost of defense and settlement, in an amount of at least \$10 million dollars, which policy shall include coverage for all costs or risks associated with:

- 1) violations of data privacy or data security laws and regulations; and
- 2) cyber risks, including denial-of-service attacks, risks associated with malware and malicious code, whether designed to interrupt a network or provide access to private or confidential information; and
- 3) other risks specific to the work performed by VENDOR as shall be identified by CUSTOMER.

(ii) Such coverage shall be furnished by an insurance company with an A.M. Best Financial Strength Rating of A- or better, and which is otherwise reasonably acceptable to CUSTOMER.

(b) VENDOR warrants that the scope of all coverage evidenced to the CUSTOMER pursuant to this Agreement shall be the sole responsibility of the VENDOR to maintain at committed to levels required by this document and VENDOR, in any event of a loss, will take full responsibility for the payment of any policy deductible, self-insured retention, premium or retrospective premium obligation necessary to maintain coverage, and shall include coverage for any indemnification and hold harmless agreements made by the VENDOR pursuant to the Data Security Rider. VENDOR's failure to pay the applicable deductible, self-insured retention, or retrospective premium shall constitute a material breach of this Agreement, with damages equal to at least the amount of insurance lost or not provided due to such breach.

(c) All insurance coverage(s) provided by VENDOR pursuant to this Agreement shall be primary and non-contributing with respect to any other insurance or self-insurance which may be maintained by the CUSTOMER.





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Schedule C

Acceptable Use Requirements

The intent of this Schedule is to document requirements as they pertain to the Acceptable Use of the Electronic Devices and Cyber-infrastructure of Avangrid, Inc. and any of its subsidiaries (hereinafter "Avangrid") by contractors, consultants or other third parties.

Employees and other persons acting on behalf of Avangrid vendors shall be required to read, acknowledge their understanding of, and commit to comply with these Avangrid Acceptable Use Requirements.

Definitions

- A **User** is defined as any contractor, consultant or other third parties, including any employee of an Avangrid vendor, with access to or using Avangrid Electronic Devices or Cyber-infrastructure.
- **Cyber-infrastructure** Includes electronic information and communications systems and services, and the information contained in these systems and services. Those systems and services are composed of all hardware and software that process (creation, access, modification, and destruction), store (paper, magnetic, electronic, and all other media types), and communicate (sharing and distribution) information, or any combination of these elements.
- **Electronic Devices** include standard computer (workstation desktop/ laptop) with network connections, digital storage media used in standard computers (e.g. hard drives), telephone and voicemail systems, mobile phones, smartphones, tablets, Personal Digital Assistants (PDA), End Point Storage Devices (EPSD), digital and video cameras (including CCTV), mobile navigation systems, printers, photocopiers and scanners, fax machines, and all other similar of associated devices, etc.
 - o **Avangrid Electronic Devices** are Electronic Devices owned and managed by Avangrid.
 - o **Personally Owned Devices (POD)** are Electronic Devices (e.g. smart phones, tablets, laptops) privately owned and managed by Users.
 - o **End Point Storage Devices (EPSD)** applies to the storage of data on devices that can be connected either by a USB drive, data cable or by wireless connection direct to any computing equipment within Avangrid, e.g. USB sticks, drives, thumb nails, pen drives, flash drives, memory cards, etc.

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1. Requirements and Practices

1.1 Electronic Devices

Avangrid Electronic Devices and resources are property of Avangrid and may be provided to Users for the pursuit of their professional activity.

1.1.1 The determining authority and responsibility for issuance of an Electronic Device shall rest with the Avangrid Business Area Leader (BAL) or department hiring manager.

1.1.2 Avangrid Electronic Devices shall be provided to Users configured with the required security hardware and software protections.

a. Compromising or interfering with the Electronic Devices' operating system, hardware, software or protection mechanisms is prohibited.

1.1.3 Users shall be responsible for the appropriate use of authorized Electronic Devices in accordance with their duties and responsibilities, including, but not limited to:

a. Protecting Electronic Devices from misuse.

b. Logging off or protecting Electronic Devices with a screen and/or keyboard locking mechanism, when unattended and when not in use.

i. Desktop and laptop computers shall be switched off or hibernating when unattended for a period more than one hour and always at the end of the workday.

ii. Desktop and laptop computer screens shall be locked by Users always when unattended.

c. Taking the following preventative measures to ensure that any Electronic Devices used to connect to Avangrid's Cyber-infrastructure are physically secured by:

i. Protecting Avangrid assets from unauthorized access and use by others,

ii. Leaving Electronic Devices in secured locations (e.g. locked cabinet or drawer, locked rooms in locked buildings as applicable),

iii. Not leaving Electronic Devices in plain view in unattended vehicles,

iv. Not leaving Electronic Devices in vehicles overnight,

v. Carrying laptops as hand luggage when traveling,

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- vi. Positioning Electronic Devices so that they (and the information displayed) are not visible from outside a ground floor window, and
 - vii. Positioning the display screen of Electronic Devices such that it cannot be viewed by others in public places (e.g. train, aircraft, restaurants, etc.).
- 1.1.4 Users shall follow Avangrid procedures for immediately reporting lost, compromised, or stolen Electronic Devices.
- a. The User shall notify the Service (Help) Desk and their Avangrid contact.
- 1.1.5 User shall follow Avangrid procedures for the return of Avangrid owned Electronic Devices when the use of those devices is deemed no longer necessary.
- a. Users shall return all Avangrid Electronic Devices to their Avangrid contact immediately upon separation/ termination, which shall be responsible for collecting all Avangrid Electronic Devices.
- 1.1.6 The use of hot desks/ shared network access equipment shall be reserved for Users who do not regularly require the use of a portable Electronic Device (e.g. laptop) for their professional activities.
- a. Users of hot desks/shared network access shall have a current network login.

1.2 Connection to Avangrid Cyber-infrastructure

- 1.2.1 All Electronic Devices which connect to the Avangrid Cyber-infrastructure network shall be Avangrid approved assets which have been configured in accordance with Avangrid standard configurations.
- a. Non-Avangrid approved Electronic Devices shall not connect directly to the Avangrid Cyber-infrastructure (e.g. through Ethernet connection).
 - b. Wireless connections from an Avangrid office shall only be accomplished through Avangrid Electronic Devices and the Avangrid supported wireless infrastructure.
 - c. Guest wireless network accounts shall only be supplied on 'as-need-be-basis' following Avangrid approval processes.
 - d. Remote desk connections shall only be supplied on 'as-need-be-basis' following Avangrid approval processes.

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1.3 Use of Mobile Devices (for Remote Access)

- 1.3.1 The determining authority and responsibility for issuance of a mobile electronic device to perform Avangrid professional activities; access the Avangrid Cyber-infrastructure or store/transmit Avangrid information/data remotely shall rest with the Avangrid Business Area Leader (BAL) or department hiring manager.
- a. Users shall remotely access Avangrid's Cyber-infrastructure utilizing only authorized hardware, software and access control standards (e.g. Avangrid approved VPN technology for Avangrid Electronic Devices or Citrix client).
 - b. At no time shall a remote User initiate two simultaneous connections to different networks (e.g., no split tunneling and no multi-homed connection).
 - c. Avangrid issued SIM cards shall not be swapped or used in non-Avangrid issued Electronic Devices.
 - d. Configuring a non-Avangrid issued Electronic Device for connection to the Avangrid corporate email system is strictly prohibited.
 - e. Users should be aware that Avangrid may monitor emails sent from and to non-Avangrid issued devices.

1.4 Personally Owned Devices

- 1.4.1 The use of Personally Owned Devices for access to and/or handling of Avangrid information/data and Avangrid Cyber-infrastructure is prohibited.

1.5 Treatment of Software and Applications

- 1.5.1 The acquisition and installation of software on Avangrid Electronic Devices shall be made using approved methods.
- a. All access to company software and/or applications shall be subject to formal request and approval processes.
- 1.5.2 Users shall be prohibited from introducing or installing any unauthorized software, content or material.
- 1.5.3 The installation of any type of network access program peer (P2P) or similar (e.g., BitTorrent, Emule), as well as any other application for file sharing that could saturate Internet bandwidth, prevent access to other Users or slow down connections to technology and information resources is prohibited.

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1.5.4 Intellectual property, licensing and regulatory requirements shall be observed always. Downloading, obtaining, copying or redistributing materials protected by copyright, trademark, trade secret or other intellectual property rights (including software, music, video, images) is prohibited, even where such material is to be used for the pursuit of the professional activity.

- a. Where materials protected by copyright, trademark, trade secret or other intellectual property rights are required for the pursuit of an Avangrid professional activity the appropriate license/permission shall be obtained prior to use.

1.6 Treatment of Information/Data

1.6.1 Information/data assets obtained or created during the engagement with Avangrid are the property of Avangrid and shall be treated in accordance with the applicable Agreement and Data Security Rider.

1.6.2 The storage of Avangrid information/data on Personally Owned Devices or non-Avangrid controlled or authorized environments, including non-authorized Electronic Devices is prohibited. Users shall not store AVANGRID owned information/data on devices that are not issued by AVANGRID unless explicitly and contractually agreed by both parties.

1.6.3 Where access to Personal Data is part of a Users' professional role and responsibilities, access shall be treated in accordance with all applicable data protection and/or privacy law(s) and regulation(s) and under strict access and usage guidelines.

1.6.4 Corporate storage spaces and network resources shall be used for file storage and/or exchange of professional information.

1.6.5 Users shall store and share information/data in accordance with the terms and conditions with Avangrid and any applicable Data Security Rider.

1.6.6 Use of an End Point Storage Device (EPSD) (e.g. USB) shall be limited to those devices acquired through the Information Technology (IT) request process (e.g. ITSM/ServiceNow).

1.6.7 Printed information/data (hard copy) shall be:

- a. Stored based on critically, e.g. hardcopy containing confidential and/or sensitive information/data shall be locked away when not required (or not in use).
- b. Discarded, when no longer needed, based on criticality, e.g. confidential and/or sensitive hardcopy shall be shredded.
- c. To be removed from printers, fax machines, copier rooms, and conference/ meeting rooms immediately.

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1.7 User Access Credentials and Passwords

- 1.7.1 Requests for access shall be made following access provisioning procedures.
- 1.7.2 Applications and network resources access shall be activated/deactivated in accordance with Avangrid activation\ deactivation procedures.
- 1.7.3 Users requiring duly justified privileged access rights will be assigned a specific "Privileged User ID"
 - a. Privileged User IDs shall be reviewed and confirmed at least semi-annually.
 - b. Regular professional activities shall not be performed from a privileged ID.
- 1.7.4 Users shall use strong, complex passwords and securely maintain secret authentication information (e.g. passwords, cryptographic keys, smart cards that produce authorization codes), including:
 - a. Not sharing or disclosing their Avangrid credentials (log on IDs-user names and/or passwords) with others inside or outside the company.
 - b. Keeping secret authentication information confidential, ensuring that it is not divulged to any other parties, including senior management and technical support.
 - c. Not recording (e.g. on paper, software file or hand-held device) secret authentication information, unless this can be stored securely, and the method of storing has been approved (e.g. password vault) by Corporate Security.
 - d. Changing secret authentication information when there is any indication of a possible compromise.
 - e. Reporting any incidents or suspected compromises by following Avangrid incident reporting procedures.

1.8 Internet Use and Social Media

- 1.8.1 Avangrid may make available internet access to users depending on their role and responsibilities.
 - a. Internet access shall be provided as a tool for business purposes, shall be used with moderation and shall be proportional to the work being undertaken.
 - b. Access to restricted websites shall be enabled at the discretion of Avangrid and shall be

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provisioned following the security exception process.

- c. Only Avangrid approved surfing software shall be used to access the Internet.

1.8.2 A moderate and proportional use of the internet shall be allowed for non-professional activities, although web surfing is expressly prohibited for:

- a. Accessing or posting of any racist or sexual content or any material that is offensive or defamatory in nature.
- b. Accessing games, downloading video, music (MP3 or another format), or downloading any other files not related to the Avangrid related responsibilities.

1.8.3 Limited and occasional use of Avangrid Electronic Devices and resources to engage in Social Networking¹ and Blogging² is acceptable, provided that:

- a. It is done in a professional and responsible manner.
- b. It does not violate the Code of Ethics or any relevant Avangrid policy, procedure or rule.
- c. It is not detrimental to Avangrid's best interests.
- d. It does not interfere with regular work duties.
- e. There is no breach of the prohibitions identified in these requirements.

1.8.4 Avangrid reserves the right to determine which websites and social media platforms can be accessible through Avangrid Electronic Devices or Cyber –infrastructure.

1.9 E-mail Use

1.9.1 All information created, sent, or received via Avangrid's e-mail system(s), including all e-mail messages and electronic files shall be the property of Avangrid.

1.9.2 Avangrid reserves the right to monitor, inspect and access such emails and electronic files.

1.9.3 The forwarding of Avangrid owned information/data to a personal e-mail account is prohibited.

¹ Social Networking is the use of dedicated websites and applications to interact with other users or to find people with similar interests.

² Blogging: A blog is a website containing a writer's or group of writers' own experiences, observations, opinions, etc., Blogging is posting to that website.





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- 1.9.4 Removing or circumventing any of the security controls enforced on the company email system (e.g. SPAM filtering, automatic email disclaimers, etc.) is prohibited.
- 1.9.5 Users shall not permit others to use their e-mail accounts. Based on user established permissions; calendars and/or mailboxes may be shared.
- 1.9.6 Limited use of an Avangrid e-mail account for personal purposes shall be regarded as acceptable provided that:
 - a. Use does not interfere with the normal performance of professional duties.
 - b. Messaging does not violate applicable laws, regulations, the Code of Ethics, or Avangrid policies.
 - c. Use is moderate both in terms of frequency and amount of memory and resources consumed.
- 1.9.7 Avangrid e-mails or messages containing company information/ data shall not be forwarded to external parties except where there is a specific business 'need to know'.
- 1.9.8 Avangrid electronic messaging shall not be used for transmitting, retrieving or storing any messages, files or attachments which constitute:
 - a. Harassing or discriminatory messages which relate to gender, race, sexual orientation, religion, disability or other characteristics protected by applicable laws and regulations.
 - b. Defamatory messages which adversely affect the reputation of a person or company.
 - c. Messages that violate copyright, trademark, trade secret or other intellectual property rights.
 - d. Obscene materials or images of a sexual nature.
 - e. Files or documents of an indeterminate origin or that, for any reason, may include computer viruses or in any way breach the security systems of the company or the recipient of the file or document, or may damage their IT systems.
 - f. Any material or images that might reasonably be expected to cause personal offense to the recipient.
 - g. Messages in violation of applicable laws, regulations, the Code of Ethics, or Avangrid policies.

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1.9.9 The retention period for e-mail messages shall be 18 months. Once the retention period has been reached, emails shall be automatically eliminated from the user's mailbox.

- a. a. Users shall store messages and/or associated attachments in Avangrid provided network folders. Storage of messages and/or associated attachments on hard drives in .pst (personal mail folders) folders is prohibited.

1.9.10 Users shall report suspicious email messages (e.g. spam, phishing, etc.) the Service (Help) Desk and/or using the reporting tool REPORTER, available in Outlook.

1.10 Incident reporting

1.10.1 Users shall immediately report any unusual activity, incident or suspected event following Avangrid incident reporting procedures (e.g. Service (Help) Desk, REPORTER, etc.)

1.11 Contract Termination

1.11.1 Avangrid Electronic Devices assigned to or in the possession of a User shall be returned to Avangrid on or before the contract termination date or whenever it is determined that the use of the Electronic Device is no longer necessary. This includes the return of facility access badges.

1.11.2 Access to Cyber-infrastructure shall be deactivated (revoked) on or before a User's termination date in accordance with Avangrid access management processes.

2. No Expectation of Privacy

All contents of the Avangrid Electronic Devices and Cyber-infrastructure are the property of the company. Therefore, Users should have no expectation of privacy whatsoever in any e-mail message, file, data, document, facsimile, telephone conversation, social media post, conversation, or any other kind or form of information or communication transmitted to, received, or printed from, or stored or recorded on Avangrid's Electronic Devices or Cyber-Infrastructure.

3. Monitoring

3.1 Avangrid reserves the right to use monitoring controls, including software, to ensure compliance with these Acceptable Use Requirements document, and to record and/or monitor one or more Users' Electronic Devices and resources, e-mails and/or internet activity in accordance with regulatory and legal requirements.

- a. This includes the right to monitor, intercept, access, record, disclose, inspect, review, retrieve, print, recover or duplicate, directly or through third parties designated for such purpose, any information/data contained on and any uses of the Electronic Devices and Cyber-Infrastructure. Avangrid may store copies of such information/data for a period of time

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AVANGRID Privacy and Data Security Rider

after they are created and may delete such copies from time to time without notice. Users consent to such monitoring by acknowledging these requirements and using the Electronic Devices and Cyber-Infrastructure.

- b. Accordingly, Users should not harbor any expectation of privacy in respect to the use of Avangrid Electronic Devices or Cyber-Infrastructure and should not consider the data contained on them as private.

- 4.2 Monitoring may take place at any time and without the need to notify or inform the User in advance, taking into consideration legal or regulatory limitations, where applicable.

4. Non Compliance

Violation and non-conformance to this guidance by third party workers may result in appropriate actions, including contract termination.



SCHEDULE I Contractor Background Check Requirements

Please see separate document

Attachment B - Domestic Background Checks

Contract Language

Direction: The following provision must be added to all contracts with Contractors subject to this Background Check Policy:

Contractor, at its expense, shall conduct a background check for each employee, agent, representative, contractor, or independent contractor (collectively, "Representatives"), as well as for the Representatives of its subcontractors, who will provide work or services to the Company or who will have access to Company computer systems, either through on-site or remote access (collectively, "Contractor Representatives"). Contractor Representatives, for the purpose of this requirement, include such temporary staff as office support, custodial service, and third party vendors used by Contractor to provide, or assist in the provision of, work or services to the Company hereunder. Contractor's obligations with respect to required background checks shall include those obligations specified for Contractor in the Avangrid Networks, Inc. –Contractor Background Check Rule, as such Rule may be revised and/or supplemented from time to time, which Policy is incorporated herein and made part of this Agreement by reference (the "Rule"). Background checks are to be conducted using the Contractor's background check vendor consistent with the process developed with the Company under this Agreement. The minimum Background Check process shall include, but not be limited to, the following checks:

- a. Social Security Number Verification
- b. Motor Vehicle Report
- c. Prohibited Parties Database Search\Debarment Lists
- d. County Criminal History Search in each county where a Contractor or Contractor Representative has resided during the seven (7) years preceding the search.
- e. National Sex Offender Registry.

The Background Check must be completed prior to initial access by Contractor Representative(s) and must, at minimum, meet the criteria specified in Attachment A of this Rule and be repeated every two (2) years for Contractor(s) and Contractor Representative(s) under continuing engagements. Any Contractor Representative who separates employment or other commercial relationship with the Contractor must undergo another Background Check prior to renewed access to the Company. The Company Department charged with managing the relationship with the Contractor hereunder (the "Company Liaison") shall have the right to require more frequent Background Checks of Contractor Representatives or to require checks from other or additional sources than those listed above and shall have the right to require that the Contractor furnish Background Check results to them. The Company reserves the right to audit Contractor's Background Check process using either a third-party auditor or representatives from the Company's Audit Department or the Company Liaison. All Contractor Representatives are responsible to self-disclose any misdemeanor or felony conviction(s) that occur during the course of their assignment hereunder within three (3) business days of the conviction. The conviction must be reported to the Contractor and the Company Liaison. If reported first to the Contractor, the Contractor shall notify the Company Liaison and the Company Director of Security within three (3) days of learning of the conviction. If, at any time during the term of this Agreement, it is discovered that any Contractor Representative has a criminal record that includes a felony or misdemeanor conviction, the Contractor is required to inform the Company Liaison who will assess the circumstances surrounding the conviction, time frame, nature, gravity, and relevancy of the conviction to the job duties to determine whether the Contractor Representative will be placed on, or continue in, the assignment with the Company, and consistent with, and to the extent permitted by, applicable state law. The Company may withhold its consent in its sole and absolute discretion. The failure of the Contractor to comply with the terms of this provision shall constitute good cause for termination of this Agreement by the Company, in whole or in part.



Avangrid Networks – Contractor Background Check Rule

Contractor Certification Form

The undersigned authorized agent of _____ (“Contractor”) hereby **certifies** that the employees, contractors, agents, and subcontractors of Contractor listed below and on any attachment meet the requirements set forth in Attachment B of the Avangrid Networks Contractor Background Check Rule (the “Rule”). Such persons constitute all of Contractor’s Representatives (as such term is defined in the Rule) during the period since Contractor’s last certification of compliance with the Rule.

Contractor shall notify Avangrid Networks of all Contractor Representative personnel changes, including without limitation all additions to and all voluntary and involuntary terminations of its Contractor Representatives. Any additions and terminations shall be communicated to Avangrid Networks immediately.

Contractor Representative Name	Employer	Date of Last Background Check

☐ See attached for additional Contractor Representatives.

Further, I certify that (i) Contractor is and has been in full compliance with the Rule since Contractor’s last certification of compliance with the Rule, and that (ii) all Contractor Representatives remain in compliance with and have met the requirements of the Rule since their last background check.

Signature

Date

Printed Name and Position

Schedule J: Avangrid Networks Contactor Safety Guide

Please see separate document



Avangrid Networks Contractor Safety Guide

ANHS-SOP-021



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1. INTRODUCTION

Avangrid Networks (Berkshire Gas, Central Maine Power, Connecticut Natural Gas, Maine Natural Gas, New York State Electric & Gas, Rochester Gas & Electric, Southern Connecticut Gas and The United Illuminating – the “Company”) Contractor Safety Guide defines the safety requirements that contractors, subcontractors and agents must adhere to in order to perform work at Company facilities, properties or work sites. These Contractor Safety Work Rules set forth the Company’s minimum expectations on the safety standards and policies of its contractors. Use and reference to this document will provide Contractors with clear expectations and will enable Company Contractors to share in Avangrid Networks’ vision to be a world-class safety organization with zero injuries every day.

It is expected that all contractors who perform work for the Company comply with all federal, state and local laws and regulations governing workplace safety. This includes work authorized to take place at any Company facility, property, designated work site or construction site. Company policies may exceed the requirements of federal, state and local regulatory agencies, and are in addition to any procedures, policies, guidance, and/or work instructions of the contractor.

This document represents policies and safety-related work methods that are unique to the Company and that may go beyond OSHA rules. Contractors must follow these requirements as well as their own rules that meet or exceed OSHA and other regulatory requirements.

Use and reference to this document will provide Contractors with clear expectations and will enable Company Contractors to share in Avangrid Networks’ vision to be a world-class safety organization with zero injuries every day.

These Contractor Safety Requirements shall be reviewed and at least annually and updated as necessary, as a result of a change in safety regulations or Company policies or procedures.

Questions regarding this procedure should be referred to Avangrid Health and Safety.

2. CONTRACTOR RESPONSIBILITIES

During the performance of any work at AVANGRID facilities, properties or work sites:

- 2.1. Contractors are and shall remain an independent contractor.
- 2.2. Contractors are responsible for their own safety compliance. Nothing stated in this Contractor Safety Guide shall relieve Contractors of their responsibility for the safety of its employees and public.
- 2.3. Contractors shall at all times comply with (1) all federal, state, and local safety and health requirements, (2) these Contractor Safety Guide work rules, and (3) its own safety procedures, policies, guidance, and/or work instructions.
- 2.4. Contractors shall inform its employees, subcontractors, and agents of these Contractor Safety Guide work rules prior to the commencement of any work, and shall at all times

be responsible for ensuring its employees, subcontractors, and agents comply with these Contractor Safety Guide work rules.

- 2.5. Contractors shall be responsible for keeping up-to-date with all changes to federal, state, and local safety and health requirements, and for communicating any such changes to its employees, subcontractors, and agents.
- 2.6. Contractors shall be responsible for communicating any changes to these Contractor Safety Guide work rules, as from time to time may be provided by the Company, to its employees, subcontractors, and agents.
- 2.7. Contractors shall be responsible for informing The Company of any changes to its own safety procedures, policies, guidance, and/or work instructions.
- 2.8. Contractors shall at all times comply with all Company guidance, specific work instructions, site-specific rules, and/or health and safety plans.
- 2.9. Contractors are required to immediately report to the Company (within 24 hours of occurrence) all accidents, injuries and incidents, including near misses, no matter how insignificant using Avangrid's form (ANHS-FOR-020D).
- 2.10. Contractors are required to ensure its employees, subcontractors, and agents are aware (1) of who to contact in case of an emergency and (2) that all accidents, injuries and incidents must be reported immediately (within 24 hours of occurrence) to their Company representative.
- 2.11. Contractors shall investigate and report on all accidents, injuries and incidents, including near misses, to the Company within five (5) days of each occurrence, which a written report generated and submitted to a Company representative and shall include a root cause analysis and a list of all corrective actions using Avangrid's form (ANHS-FOR-020D).
- 2.12. All written investigation reports are subject to review by the Company.
- 2.13. In the event any contractor is ever informed by a third party or has reason to suspect that it is not in compliance with any of the foregoing, it shall immediately notify Company (within 24 hours of discovery) of such noncompliance, and take all appropriate action to remedy such noncompliance to the Company's satisfaction.
- 2.14. Neither compliance with these Contractor Safety Guide work rules nor the Company's approval of any actions or procedures of contractors shall relieve contractors of its obligation to always use due care in performing work and to take any additional and necessary precautions to prevent injury, or property damage. Contractors shall ensure safe work practices are employed throughout the course of the project.

3. ADMINISTRATIVE SAFETY REQUIREMENTS

3.1. Pre-Bid Meetings

This section applies to all Contractors, as needed.

The pre-bid meeting is coordinated by the Company to provide bidders with an opportunity to acquaint themselves with contractual requirements and specific safety issues concerning the project, including Company-specific safety rules and known site

conditions. Pre-bid meetings may be held for some – but not necessarily all – projects, and will be held when determined necessary by the Company.

3.2. Worker Qualification Assurance

This section applies to all Contractors, as needed.

In order to meet Company safety requirements, the Contractor must describe how workers, including subcontractors, are qualified. The Contractor must supply information concerning the type of skills assessment performed, training programs, and how they ensure that employees demonstrate competencies. The Company reserves the right to verify Contractor competency.

The Contractor shall certify that:

- The Contractor has been informed of Company safety requirements;
- Employees and subcontractors have the appropriate qualifications to perform the work; and
- The Contractor agrees to comply with all applicable safety requirements.

The certification shall be in the form of a Letter of Assurance.

The bidder shall supply the background and qualifications for all management personnel through resumes, behavioral observations or other documents. The Company shall interview and approve management personnel if considered necessary.

Contractors bidding on new work shall provide this information to the Company contact or through ISNetwork.

3.3. Project Safety Plan

This section applies to high or medium risk work in detail commensurate with the scope of the project.

Contractors who perform medium or high risk-ranked contracted services shall submit a project-specific safety plan prior to the start of the project and/or at the pre-construction meeting. The Company representative will provide specific requirements of the format and/or forms to be completed.

At a minimum, the project safety plan shall include a completed safety hazards checklist and the Emergency Contact Sheet. This format is ideal for short-duration, small and/or simple projects. This minimum safety plan shall be referred to as the SHORT VERSION.

Long-term, large and/or complicated projects require the Contractor to complete a more detailed safety plan. This plan shall be referred to as the LONG VERSION. At a minimum, the LONG VERSION safety plan shall include the following elements:

- Roles and responsibilities
- Scope of work
- Task and hazard identification and risk assessment of the hazards
- Hazard mitigation/control procedures and work methods
- Incident analysis and reporting
- Compliance and monitoring
- Roles and Responsibilities

The plan shall identify who will be responsible for the project oversight and their qualifications. For example, if the work requires excavation, there must be someone on-site who would be qualified as a competent person as required by OSHA standard.

For multi-employer work-sites, the general Contractor is responsible for all their employees and subcontractors. The safety plan shall clearly state this responsibility.

Scope of Work - Briefly state the scope of work as provided by the Company. The plan must specifically address the project or contracted services requested by the Company. Therefore, the scope should be short and to-the-point.

Task Hazard Identification and Risk Assessment - The Contractor shall identify all significant tasks and the anticipated hazards. The Company refers to this process as a risk assessment.

The Contractor's cost to provide adequate safety measures and to comply with Company requirements must be considered and budgeted in the bid/proposal.

Hazard Mitigation Procedures and Work Methods - For each hazard, the Contractor shall specify measures that will be taken to mitigate these hazards. A table format is the simplest way to organize and present the task, hazard and mitigation steps. For example:

Location: Substation Yard

Task	Hazard	Mitigation Steps
Material Handling	Contact with overhead energized lines / equipment	Off load in the clear and have a safety observer present

Incident Analysis and Reporting - Follow the requirements referenced in this document.

Compliance Monitoring - Explain how you will ensure that both your employees and subcontractors will achieve safety compliance.

4. CONTRACTOR ORIENTATION

This section applies to all Contractors, as needed.

- 4.1. Contractor Orientation shall be conducted by a Company Representative, and is intended to serve as a resource in order to provide the Contractor with the tools necessary to educate their employees and subcontractors. The session is not intended to train the Contractor management, their employees or their subcontractors. The extent and content of the orientation session shall be determined by the Company and shall be commensurate with the scope and type of the Contractor's activities. The Contractor shall provide management representation at the orientation session.

After the completion of the orientation session, the Contractor shall certify in writing that:

- The Contractor has been informed of Company safety requirements;
- Employees and subcontractors have the appropriate qualifications to perform the work; and
- The Contractor agrees to comply with all applicable safety requirements.

The certification shall be in the form of a "Letter of Assurance", printed on the Contractor's letterhead, signed by a principal of the Contractor, and delivered to the Contractor's Company contact, or ISNetworld participants will upload this letter into ISNetworld to meet this requirement.

4.2. Information Transfer

As referenced in OSHA 1910.269(a)(3) and (a)(4), before work begins, the appropriate Company User's Representative shall provide the Contractor access to the follow information:

- The existing characteristics and conditions of the Company installations that are related to the safety of the work to be performed;
- Information about the design and operation of the Company installations that the Contractor needs;
- Arc flash studies;
- Ground fault studies;
- Voltage levels for tree trimming operations; and
- Danger poles tagging.

As referenced in OSHA 1910.269(a)(3), the Contractor shall ensure that each of its employees is instructed in hazardous conditions relevant to the work, and the Contractor shall advise the Company of any hazardous conditions found before and during the work.

5. GENERAL SAFETY REQUIREMENTS

5.1. Pre-Construction Meetings

This section applies to medium or high risk-ranked projects or activities.

5.1.1. Pre-Construction Meeting Guidelines

The Project Manager, Company Construction Supervisor or other designated User's Representative shall hold a pre-construction (project kickoff) meeting prior to the start of a medium or high risk-ranked project/service. Other attendees may include Company Health and Safety, Environmental, or Contractor management as needed.

The Contractor's Project Safety Plan will be discussed at this meeting, including a final review of the safety hazards checklist to ensure a proper hazard mitigation plan.

These hazard mitigation measures shall be reviewed, and work shall not commence, until these hazards have been adequately mitigated. The Owners Representative, or other User's Representative, will discuss with the Contractor the methods by which compliance will be achieved with Company safety requirements.

An Emergency Call List shall be exchanged with the Contractor. This list must contain 24-hour contact information for key Contractor and project personnel, including Owner's Representative and Safety Specialists. This list should be distributed to all concerned, as determined by the project team, prior to the start of work.

For routine contracted maintenance services, a review of associated safety issues and specific facility issues, restrictions or practices, such as evacuation procedures, must be discussed with the Contractor upon initial hiring. Any changes in the facility that may affect the safety of Contractor, Company employees or third parties must be communicated immediately.

5.1.2. Required Meeting Documents

The User shall document the meeting proceedings using the referenced Attendance Roster and Meeting Agenda:

- **Attendance Roster** (ANHS-FOR-020B): The participants shall print their names, phone numbers, and Company name on the Attendance Roster.
- **Meeting Agenda** (ANHS-FOR-020A): The meeting agenda checklist covers safety topics. A second page is provided to include action items and other significant issues identified during the course of the meeting.

5.2. Related Documents

Related documents may be used during the Pre-Construction Meeting as appropriate. This section explains their purpose.

Contractor Safety Requirements: The User is responsible for ensuring that the Contractor has a copy of the most current **Contractor Safety Guide** (ANHS-SOP-021). This document provides detailed guidance to the Contractor regarding Company safety performance expectations. The most current electronic copy can be obtained from your Avangrid contact and/or the ISN website.

Emergency Contact Sheet: This document can be used as by the User and Contractor to record key contact and emergency contact information.

5.3. Safety Meetings

This section applies to all Contractors, as-needed.

The Contractor shall have regular monthly (or more frequent) safety meetings with documented attendance of their employees and subcontractors.

Minutes of the safety meetings shall be documented in writing, and shall be available for inspection by the Company during the project period and for 30 days after the project is completed.

Weekly safety meetings/calls between the Company and Contractor management are required for all high-risk work. These meetings shall focus purely on safety.

5.4. Job Safety Briefs or Dynamic Risk Assessments

This section applies to all Contractors, as-needed.

Job safety briefs shall be documented in writing. Written job safety briefs, on the Contractor letterhead, shall be available at the job site for inspection, and retained for 30 days after the job is completed.

Each crew shall conduct these job safety briefs or dynamic risk assessments prior to each day's work, when there are changes to the work order or plan, and when a new worker joins the crew.

Each worker must have the opportunity to voice concerns. The work cannot begin until each worker signs off on the job safety brief stating that they have discussed the work and agree with the plan.

5.5. Incident Analysis

This section applies to all Contractors (regardless of risk ranking).

All Contractors are required to report to the Company, any work-related incidents involving injury or illness to employees or the public, or property damage to the Contractor's or Company's equipment. The first priority is to ensure that the injured receive medical treatment. The Company will provide the Contractor with the **Contractor Incident Report** (ANHS-FOR-020D) during the pre-construction meeting.

The Company contact will explain these reporting requirements in more detail prior to commencement of work.

An incident is defined as an event that has a human component, and results in, or could potentially result in, at least one of the following outcomes:

- Injury – incidents that cause harm to people;
- Property Damage – incidents that cause damage to property;
- Adverse Public Impact – incidents that disrupts service to the public or results in adverse public reaction; or
- Near-Miss – an incident which had the potential under different circumstances to result in an injury.

A hazardous condition is defined as a condition that can and is rectified immediately by the person who identified the hazard.

A significant hazard is defined as a condition that requires others to take actions to rectify and requires further investigation as to how the situation came to occur.

5.5.1. Incident Response Steps

In the event of an incident, the Contractor shall provide details of the incident to the Company that follows the steps below, using the **Contractor Incident Report** (ANHS-FOR-020D).

The Contractor supervisor collects basic information about the incident from the employee or witnesses:

- What happened?
- Who and how many people were injured?
- What treatment was administered?
- What was the nature and seriousness of the injury?
- Where did the incident occur?
- When did the incident occur (date, time of day)?
- What was the cause of the accident?
- What type of work was performed?
- Were there any witnesses?

The Contractor shall conduct an investigation and provide a written report to the Owners Representative and Company Health and Safety for review and entry into the Cintellate Incident Data Management System.

The Contractor will then conduct an investigation that will identify contributing factors relating to the incident and the corrective actions that will be taken to prevent reoccurrence. The Contractor will notify the Owners Representative and Company Health and Safety when any action items have been completed. The

results of the incident investigation shall be described in a report prepared by the Contractor and provided to the Company.

Contractor vehicle accidents occurring during the performance of work will also be investigated and reported to the Owner's Representative and Company Health and Safety.

5.6. Other Reporting

Company requires the following monthly data for all work activities related to Company operations:

- OSHA Recordable Incident Rate (OIR)
- Lost Time Incident Rate (LTIR)
- Restricted Work Rate
- Number of near misses
- Number of workers
- Number of hours worked

5.7. First Aid / Medical Treatment

Contractors shall be responsible for the medical needs of its employees and its agents. Contractors must be prepared for any type of medical emergency that may occur on the work site. At a minimum, contractors must be equipped with first aid kits fully stocked to handle any type of medical emergency, and shall have procedures in place to transport its employees or agents to nearby medical treatment centers in the event of any employees or agents are injured at the work site.

5.8. Alcohol, Drugs, and Firearms

Under no circumstances may any alcoholic beverages (including those labeled "non-alcoholic"), controlled substances (except for drugs prescribed by a licensed medical professional), or firearms (including when otherwise permitted by law) be allowed on Avangrid facilities, properties or project work sites, including any parking lots. No individual selling, using, or under the influence of alcohol and/or drugs shall be allowed on Avangrid facilities, properties, or work sites. Anyone found with alcohol, drugs or firearms will be removed from the property. The only exception to this rule is that uniformed, government police personnel may carry firearms to the extent permitted by law.

5.9. Smoking

Smoking is strictly prohibited in all AVANGRID facilities and vehicles.

5.10. Housekeeping

Contractors shall be responsible for keeping the work site neat, clean, and free of any debris, trash, and hazards. Contractors shall store any materials or equipment on the work site in a neat and orderly fashion. Contractors shall routinely patrol the work site to ensure it is properly maintained, which, at a minimum, must be performed at the end of each shift.

5.11. Personal Protective Equipment (PPE) Requirements – General

This section applies to all Contractors (regardless of risk ranking).

It is the Contractor's responsibility and obligation to ensure that appropriate PPE is used. The following requirements are for reference by the Contractor but in no way absolve the Contractor from its responsibilities regarding PPE.

Basic PPE attire at construction sites and other similar work zones include, at a minimum:

- Clothing suitable for the work and the conditions under which the work is to be performed. Fire retardant (FR) clothing shall be worn when the contractor is exposed to flash hazard (8 calorie/cm² minimum).
- Safety glasses (including side shields) meeting the ANSI Z87 standard shall be worn on all sites.
- Protective gloves or other hand protection when exposed to hazards that may cause cuts or lacerations, abrasions, punctures; chemical burns, thermal burns or that may be absorbed through the skin.
- Safety hard hats approved for protection against electrical hazards during any work wherever an overhead hazard exists, such as construction areas and substations and during maintenance of overhead lines and underground lines, and while working on or with all associated equipment.
- Approved high-visibility warning garments must be worn whenever contractors are working on or adjacent to roads and exposed to moving equipment.
- Safety footwear with a protective toe must be worn whenever contractors are working in areas where there is a danger of foot injuries due to falling and rolling objects or objects piercing the sole. Approved electrical hazard, safety footwear with a protective toe must be worn whenever contractors are working in areas where its employees' feet are exposed to electrical hazards.

The Contractor shall ensure that their employees and subcontractors use protective safety toe footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards. Electrical Hazard (EH) rated footwear is required when entering all substations, working on or around electrical equipment over 50 volts, or in an area of expected downed wires. This requirement is based on OSHA 1910.136 and ASTM standard F-2413-05.

Guidance for additional PPE is referenced in other sections of this document.

5.12. Life Jackets

Contractors must provide its employees with a U.S. Coast Guard-approved life jacket or buoyant work vest whenever contractors are working in areas where there is the potential for falling into a river, lake, forebay, and headwater or where the danger of drowning exists. Such jackets or vests must be worn at all times and fastened properly to ensure adequate protection.

5.13. Site Office Trailers

All site office trailers shall be located on stable ground and located in a manner that does not interfere with site activities. All office trailers shall be kept level at all times. Office trailers shall be secured to the ground in order to prevent rollover during high winds. Access and egress shall be by means of OSHA approved steps and or platforms. All office trailers shall be equipped with fire extinguishers properly mounted on a wall near the door.

5.14. Hazardous Substances

Polychlorinated Biphenyls (PCBs), asbestos, lead, and other hazardous substances may be present on or at AVANGRID facilities, properties and work sites. Avangrid will provide contractors with information regarding the known presence of any hazardous substances in areas where the contractor is expected to perform work for AVANGRID. Contractors shall be responsible for establishing training and information programs for its employees and agents with respect to any such hazardous substances, and for ensuring its own compliance with the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) (29 CFR § 1910.1200). Contractors must immediately notify Avangrid of any suspect or questionable substances encountered during any work performed for Avangrid, and ensure that all appropriate precautions with respect to such substances, including informing and training its employees or agents, have been taken prior to continuing any work.

5.15. Hot Work

Hot Work is any work that produces a flame, spark, or excessive heat and includes the use of burning or welding equipment, brazing equipment, explosives, open flames, grinders, and powder-actuated tools. Contractors must coordinate their activities with the AVANGRID Safety Department prior to commencing any Hot Work. Contractors must conduct a hazard assessment, demonstrating what appropriate actions will be taken to prevent the ignition of combustible and flammable materials, such as the use of welding tarps and fire watches, and ensuring an adequate number of fire extinguishers are readily available at the site where the Hot Work is to be performed. In all events, any Hot Work must conform to **29 CFR 1910 subpart Q**.

5.16. Tools and Equipment

Contractors shall be responsible for providing the tools and equipment appropriate for the work that is to be performed. AVANGRID will not provide or lend tools or equipment to any contractors. All tools and equipment used at the work shall be maintained in a safe and operable condition and must at all times be used as designed and in accordance with the manufacturer's instructions. Under no circumstances may any tools or equipment be used that have had any safety guards or other devices removed, defeated or compromised in any way. ***Metal tape measures shall not be used near energized equipment or inside substations at any time.*** Power-operated hand tools shall be used in accordance with **29 CFR 1926.302**.

5.17. GFCI

All electrical tools, lights and extension cords used outside or in damp locations must be insulated, isolated, or GFCI protected, and, in all instances, must conform to **29 CFR 1926.404**.

5.18. Nail Guns and Powder-Actuated Tools

Only individuals who have been trained in the operation of the particular tool in use shall be allowed to operate a powder-actuated tool. Powder-actuated tool must be tested each day before loading to confirm that its safety devices are in proper working condition. In order to prevent striking an unintended object or person, all nail guns, Hilti guns and other similar tools must be used in such a manner that ensures the projected fasteners do not miss or penetrate the intended striking surface, which includes taking reasonable precautions to ensure that fasteners do not become airborne projectiles. Such precautions include, but are not limited to, directing the line of fire away from other persons (including passersby), preventing access to the opposite side of any striking surface (such as walls), and preventing access within 20 feet to any use of powder-actuated tools. All power-actuated tools used by contractors shall meet the requirements of ANSI A10.3-1970, and any use of power-operated hand tools at AVANGRID's work sites shall conform to **29 CFR 1926.302**.

5.19. Ladders

Only ladders constructed of fiberglass may be used in and around electrical equipment, including during any work at AVANGRID's substations. Ladders must always be properly positioned on a stable base. All straight and extension ladders must be tied off at the top and bottom or footed by another person. Step ladders may only be used in the fully open position with the spreader brackets locked in place. All use of ladders must be in accordance with manufacturer's instructions, and no person may stand or sit on the steps or platforms on which standing or sitting is prohibited. All ladders used by contractors and all use of ladders at AVANGRID's work sites shall conform to 29 CFR 1926.1050-1926.1060.

5.20. Scaffolding

Prior to the commencement of any project or contracted work, contractors must establish with AVANGRID a competent person(s), and provide credentials supporting his/her competency, to oversee all aspects of any scaffolding that may be used at the work site. Comprehensive fall protection measures shall be maintained at all times during the erection of any scaffolding at AVANGRID's work sites, unless the person established by the contractor (or other competent person) concludes, and maintains documentation describing his or her conclusion, that using 100% fall protection or other restraint measures is not feasible or creates greater hazards, in which case contractors shall utilize as close to 100% fall protection or restraint measures as possible based on the conclusions set forth in such documentation. Unless validated by the person established by the contractor (or other competent person), who must be a "qualified person" as defined by 29 CFR 1926.450 and must maintain all documentation supporting his or her conclusion, scaffold components may not be used for fall protection or restraint anchorage points. The person established hereunder shall inspect all scaffolding and associated components at least once prior to each work shift, from the time scaffold erection has begun until scaffold dismantling is completed, and, if necessary, shall be responsible for affixing signs, tags or equivalent markings means to conspicuously indicate whether the scaffolding is safe to use or not safe to use. Any transfer of the established person's responsibility hereunder must be coordinated and clearly noted among AVANGRID and other parties involved. All scaffolds used by contractors and all use of scaffolds at AVANGRID's work sites shall conform to 29 CFR 1926 subpart L.

5.21. Rigging and Hoisting

Tag lines must be used any time lifting devices are used to handle or transport loads, except during times where there is any risk of tag lines coming into contact with energized parts. The swing load radius must be kept clear while a suspended load is being moved, and under no circumstances may a load be suspended over people. All lifting devices and its hardware shall be rated, properly maintained and properly connected for its proposed use. No load may be lifted without first determining its weight. Load charts shall be maintained at the work site and be available for AVANGRID's inspection upon request. All rigging and hoisting conducted at AVANGRID's work sites shall conform to 29 CFR 1910.176-1910.184.

5.22. Confined Space Entry (including Enclosed Space Entry)

Contractors shall treat all "confined spaces" as "permit-required confined spaces" (as each are defined under 29 CFR 1910.146) until a written hazard assessment is prepared documenting otherwise. Contractors must coordinate all entry into confined spaces (whether a permit-required confined space or a non-permit-required confined space) with an authorized AVANGRID safety representative, the local facilities/building supervisor, and any other work groups involved in the project to ensure the activities at the work site

do not affect the safety or health of any person. Contractors shall ensure that all practices and procedures utilized with respect to any entry into confined spaces and permit-required confined spaces conform to 29 CFR 1910.146.

5.23. Excavation Safety

Contractors shall ensure that all its employees and subcontractors who engage in excavation and trenching activities are properly trained and supervised. Prior to excavating, the Company shall follow the appropriate Call Before You Dig (CBYD) (CT) or Dig Safe (MA) procedures to obtain a markout of utilities.

5.23.1. The competent person in charge shall identify the excavation boundaries and employees shall keep the excavation work within these limits.

5.23.2. In New York, any contractor employee(s) involved in excavating into the ground must have completed the Certified Excavator Program through Dig Safely New York, Inc. and have a current certification. In other states, any contractor employee(s) involved in excavating into the ground must have some training from their respective 811 representatives.

5.23.3. For all excavations, sloping guidelines for Type C soil shall be used unless on-site competent person is able to determine otherwise (Type A or B). Sloping in Type C soil requires a 1.5 horizontal to 1 vertical ratio. Use sloping or protective systems (shoring, trench box):

- Any time the walls of excavations and trenches are unstable and have the potential for cave in.
- Any time the trench is 5 feet or more in depth.

5.23.4. Excavated spoils, materials, and equipment shall not be stored closer than 2 feet from the edge of a trench or excavation. Mobile equipment shall not be operated in close proximity to the edge, unless extra precautions are taken to shore or slope the walls back to a stable slope.

5.23.5. Supporting systems, (e.g., piling, cribbing, shoring, trench box) shall be designed by a qualified person and meet accepted engineering requirements and be in good serviceable condition. Engineering documentation (Tabulated data) of appropriate ratings shall be available on-site.

5.23.6. When employees are required to work in trenches 4 feet deep or more, an adequate means of exit, such as a ladder or steps shall be used and located no more than 25 feet of lateral travel. All ladders used shall extend a minimum of 3 feet above the top of the excavation.

5.23.7. A competent person shall inspect the excavation daily and after each rainstorm or when the conditions change.

- 5.23.8. Employees shall not work in excavations in which there is standing or accumulating water, unless authorized by a Competent Person.
- 5.23.9. Do not permit anyone to be under loads handled by power shovels, backhoes, or other material handling equipment.
- 5.23.10. Excavation equipment in proximity to exposed electrical conductors (backhoes, etc.) shall be grounded when applicable.
- 5.23.11. All excavations greater than 4 feet, where a potential hazardous atmosphere may exist, (e.g., swamps, landfills) shall be tested before entering. If the atmosphere is found to be hazardous (e.g., oxygen deficient, combustible gas, carbon monoxide, and hydrogen sulfide gas), mechanical ventilation shall be used to clear the atmosphere and continuous monitoring shall be required.
- 5.23.12. Whenever there is danger of escaping gas, or a potential or confirmed flammable atmosphere an employee will stand by on Fire Watch with an approved fire extinguisher, upwind, near the edge of the excavation.
- 5.23.13. Check excavations for gas before entering trenches or excavations to use welding equipment or other sources of ignition. Use a Combustible Gas Indicator to test for gas
- 5.23.14. When openings or obstructions in the street, on sidewalks, walkways, or in private property are being worked on, danger signals (e.g., barricades, warning signs, flags, or cones) shall be effectively displayed. Approved lights, flasher signals, or reflectors shall be prominently displayed at night. In addition, if the job- site is left unattended, adequate barriers, covers, etc., shall be required. Barricades shall meet MUTCD regulations.
- 5.23.15. All excavating and trenching activities performed at AVANGRID's work sites shall conform to applicable OSHA regulations, including 29 CFR 1926 subpart P.

5.24. Guarding of Holes and Openings

Contractors shall guard or place barricades around temporary openings in floors, walls, excavations, holes or other openings to prevent any inadvertent entry. Covers over or barricades around such openings shall conform to applicable OSHA regulations. Overnight guarding of excavations, holes or other openings must be a minimum of 6' page linked metal fence to prevent any inadvertent entry.

5.25. Work Zone Traffic Control

This section applies to all Contractors, as needed.

If work activity is on or near a road, the Contractor and their subcontractors will comply with all applicable parts of the most current US Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD).

If working in areas covered by state permits issued to the Company, Contractors are required to comply with the provisions (work practices and notifications) of the permit language.

5.26. Signs, Signals and Barricades

All work areas, whether indoors or outdoors, shall be clearly marked and delineated with appropriate signs, signals and barricades. Any areas restricted to entry by authorized persons will have a conspicuous barrier clearly marked by appropriate "DANGER", "CAUTION" or other signage that (1) clearly notes the nature of the hazard and (2) provides adequate guidance to the reader (the placement of orange cones or signs alone is generally not considered adequate). Any detours, whether for vehicular or pedestrian traffic, shall be clearly marked along the entire route. Contractors are responsible for checking and maintaining all signs, signals and barriers throughout the period of need, and for removing or covering the same when the period of need no longer exists. In the event signs or barriers are not available or their use is not practicable, such as for a momentary hazard exposure, contractors shall position employees to warn others of such hazards. At all times such signs, barriers or signals, shall conform to 29 CFR 1926 subpart G, MUTCD, ANSI Z35.1-1968 and Z35.2-1968, CT DOT and AVANGRID policy.

5.27. Lockout/Tagout

Work performed at AVANGRID facilities or work sites may require the use of a lockout/tagout system. Contractors must coordinate what lockout/tagout system will be used with an authorized AVANGRID safety representative prior to commencing any work that would require such a system, which may include AVANGRID's specific lockout/tagout protocols. All lockout/tagout must conform to 29 CFR 1910.147, 29 CFR 1926.417 and AVANGRID's specific protocols.

6. ELECTRIC SYSTEM SPECIFIC SAFETY REQUIREMENTS

6.1. Flame-Resistant Clothing (FRC) Requirements

This section applies to all Contractors, as-needed.

FRC shall be worn prior to personnel breaching electrical boundaries within work zones & substations, work on energized equipment/lines or when distance and position will expose the worker to electric arc or flame hazards. FRC shall also be worn during live gas work. FRC also includes arc-rated rain gear. This additional ensemble may also be required as part of the job.

FRC shall be worn as the outermost layer of clothing.

FRC shall be worn when workers measure voltages or test or ground electrical equipment or lines.

FRC shall be worn when work requires the use of rubber protective equipment or the use of insulated live line tools.

FRC shall be worn when workers control/operate electrical equipment over 50 volts at the device location or are within 10 feet of equipment which is being physically operated by another worker.

FRC shall be worn where a hazard identification sign is posted.

Contractors shall wear the appropriate FRC when working on or near energized equipment or when distance and position will expose the Contractor to electric arc or flame hazards. For LNG plants, visitors are required to wear FRC prior to entry. Note: Gas Contractor FRC requirements may differ slightly.

FRC shall meet a minimum arc rating of 8 cal/cm² (HRC 2) for energized electrical equipment unless otherwise specified based on increased potential of exposure. The FRC system for HRC 2 shall consist of an arc-rated FR shirt and FR pants, or FR coveralls.

In accordance with “Host Employer” requirements of OSHA 1910.269, the Company will provide guidance on the circuit by circuit arc flash studies. Also see **Section 4.2**.

6.2. Rubber Gloves and Sleeves

This section applies to all Contractors, as-needed.

Rubber glove use is required for work on all electrical apparatus at 50 volts or greater. When working at height, rubber gloves shall be donned before the worker leaves the ground and shall be worn until the worker returns to the ground (commonly referred to as “ground to ground” and “cradle to cradle”).

- Class 0 gloves are required for exposures up to 1,000 volts.
- Class 2 gloves are required for voltages between 1,000 and 15,000 volts.

Rubber sleeves must be worn where work is conducted within the minimum approach distances of primary electrical apparatus that is not de-energized, tested and grounded.

For voltages 15 kV and above, workers can use specialized equipment or work practices as long as these workers have been appropriately trained and qualified. The Company may request a letter of assurance from the Contractor.

Rubber glove exceptions for specific jobs (other than those listed in this section) are permitted only with the written approval of the local Company Operations Manager. No rubber gloves are required:

- When working in a properly established equipotential zone.
- When the operator remains at the same potential as the equipment by being off the ground and on the equipment.
- When a qualified worker performs transmission "hot stick" work on lines 69 kV or greater and no other energized wires are on the pole or structure below the worker.
- When work is performed on transmission structures carrying only energized conductors (115kV and above) and the Live Line Techniques are not being employed. While performing these activities, the worker shall utilize conductive clothing such as conductive gloves, conductive boots, leg straps and/or any other applicable conductive clothing.
- When climbing a steel structure to perform structural reinforcements, and while maintaining minimum approach distance from energized conductors or apparatus.
- When climbing a steel structure to access an area that has been properly grounded.

6.3. Isolation of Energized Apparatus

This section applies to all Contractors, as-needed.

Non-Reclosing Criteria and Live-Line Maintenance and Construction:

- The appropriate interrupting devices (breakers, reclosers, circuit switches, etc.) will be placed on NON-RECLOSING in accordance with the Company Switching and Tagging procedures.

6.4. Tagging Out Lines or Apparatus:

The Owner's Representative or other designated representative shall coordinate all switching and tagging in accordance with the most current Company Switching and Tagging procedures.

6.5. Grounding:

When the Company switches out lines or apparatus, any grounds that may be installed shall only be considered a visual reference, and shall not be considered a means to protect the Contractor's employees.

The Contractor is responsible to install their personal grounds, in accordance with all OSHA, Federal, State and local safety procedures.

In accordance with "Host Employer" requirements of 1910.269, the Company will provide guidance on the minimum size of the grounds to be used based on circuit available fault current. Grounding Mobile Equipment:

When mobile equipment requires grounding, it shall be solidly grounded by means of appropriate sized copper cable. The cable shall be fastened to a securely attached clean metallic portion of the equipment, or shall be fastened to a grounding stud provided for the purpose at one end and an adequate ground at the other end.

6.6. Minimum Approach Distance (MAD):

For Qualified Electrical Workers, follow the MAD tables in OSHA 1910.269.

For non-Qualified Electrical Workers, the OSHA clearances are 10 feet and up, depending on voltage.

6.7. Appointment of a Safety Observer

This section applies to all Contractors, as-needed.

If work is being performed where there is a potential for persons or equipment to come in contact with energized equipment, a Safety Observer will be appointed by the **Company** to aid in protecting employees and others from hazards. The Safety Observer will be a “Qualified Electrical Worker” with the training and experience specified in OSHA regulations, specifically the “Electric Power Generation, Transmission and Distribution Standard” 29 CFR 1910.269.

The Safety Observer will be appointed:

- While positioning trucks, cranes or other equipment and where precise placement is required to avoid contact with or damage to existing equipment or circuits;
- While moving loads overhead that may come within OSHA clearance requirements; or
- At other times where assistance is needed to help direct specific tasks for the protection of personnel or property.

6.8. Qualified Electrical Workers

This section applies to Electrical Projects/Activities.

The Company expects that electrical Contractor employees will already be electrically-qualified as required by OSHA 1910.269.

OSHA defines a qualified electrical worker or “qualified employee” as a person knowledgeable in the construction and operation of the electrical power generation, transmission and distribution equipment involved and the associated hazards. According to 1910.269(a)(2)(ii), a qualified employee must be trained and competent in:

- The skills and techniques necessary to distinguish exposed live parts of electrical equipment;

- The skills and techniques necessary to determine the nominal voltage of exposed live parts;
- The minimum approach distances specified in 1910.269 corresponding to the voltages to which the qualified employee will be exposed;
- The proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools for working on or near exposed energized parts of electrical equipment; and
- The recognition of electrical hazards to which the employee may be exposed and the skills and techniques necessary to control or avoid these hazards.

Until these qualified employees have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at all times. According to the definition of a “qualified employee”, the employee also must have demonstrated an ability to perform work safely at his or her level of training.

The Company requires Contractors with electrically qualified employees to provide documentation on how they qualify their workers.

6.9. Non-Electrical Workers

This section applies to all Contractors, as-needed.

The Contractor must provide Contractor orientation for non-electrical workers for the purpose of entering and working within restricted areas, such as a substation. This is a critical component of Contractor orientation for all non-electrical Contractors who will be working near energized lines and equipment (for example, civil Contractors).

The information provided to these workers must meet the requirements of OSHA 1910.269(a)(2)(ii). However, the orientation and training would not be as comprehensive as the training normally provided to a qualified electrical worker.

They must know:

- What is safe to touch and what is not safe to touch in the specific areas they will be entering;
- The maximum voltage of the area;
- The minimum approach distances for the maximum voltage within the area; and
- Proper use of protective equipment that will be used to provide protection for them and in the work practices necessary for performing their specific work assignments within the area.

Until these workers have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at all times. According to the definition of a “qualified employee”, the employee also must have demonstrated an ability to perform work safely at

his or her level of training. It is expected that an orientation familiarizing the employee with the safety fundamentals above will be conducted before the worker is allowed to enter a restricted area.

6.10. Asbestos and Lead Hazards

This section applies to all Contractors, as-needed.

Asbestos and/or lead materials associated with electrical and gas equipment includes, but is not limited to:

- Cable covering/wrap;
- Wire covering;
- Coal tar pipe wrap; and
- Transite panels and conduits.

Removal of this material must be done by individuals specifically trained and qualified to handle asbestos or lead.

For projects or activities where asbestos material is present and may be disturbed, the Contractor Safety Plan shall include provisions detailing how the Contractor will address the hazard.

6.11. Overhead Line Work

This section applies to all Contractors, as-needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to overhead line work.

PPE Requirements

All Contractors shall ensure appropriate PPE is utilized in accordance with applicable requirements and the guidance provided in this document. In addition, Contractors will follow ground-to-ground and cradle-to-cradle use of rubber gloves while carrying out work on energized overhead lines; commonly referred to as “ground to ground” and “cradle to cradle”.

Any foreign wire constitutes a potential energized source and rubber gloves shall be required. Any foreign wire on a pole or structure constitutes an energized source: cable TV, telephone, fire alarm wire, etc.

Fall Protection

All Contractors who climb structures such as wood poles or transmission towers shall utilize enhanced fall protection equipment and techniques. Enhanced fall protection means the use of a fall arresting device; examples include Buck-Squeeze, Miller or Jelco pole-choking systems when working on wooden structures, and a full-body harness and either a Step

Safe or Shepherd's Hook with retractable line when working on steel structures. Climbers shall never be allowed to drop or slide down a pole or structure more than two feet. Fall protection or fall restriction devices shall be used when working at heights over 4 feet, with the exception of ladder use.

Exceptions to fall protection shall be approved by the Owner's Representative or by another qualified User Representative.

Implementation of Safety Specifications for Site Pole Delivery and Handling

The establishment of a section in the specifications for transmission and distribution work involving poles to secure the site from the possibility of poles rolling using methods not easily defeated by the public is required. This section will outline the use of cradles on-site to secure the poles as well as the conditions of temporary storage areas such as grade, distance from changing grades, and ground.

All managers must be educated on the hazards of pole rolling, on identifying current and future hazards regarding the rolling of poles, and periodic refreshers on the safety issues regarding rolling poles through use of internal web communication tools.

The necessary specifications of temporary pole storage must be included in job briefs and the contractor safety SOP in order to ensure a contractor-based workforce (with high volatility and turnover) properly secures poles left on-site, as well as continuous identification of the hazards involved in rolling poles to ensure ongoing awareness.

Continuous safety auditing to ensure the hazards of rolling poles are being addressed and the established specifications for temporary pole storage are being implemented is required.

Pole/Structure Inspection

The Contractor shall ascertain the structural integrity of the pole or other structure prior to installation, removal or repair of equipment on the structure.

When work is to be performed on a wood pole, it is important to determine the condition of the pole before it is climbed. The weight of the employee, the weight of equipment being installed, and other working stresses (such as the removal or re-tensioning of conductors) can lead to the failure of a defective pole or one that is not designed to handle the additional stresses. For these reasons, it is essential that an inspection and test of the condition of a wood pole be performed before it is climbed.

If the pole is found to be unsafe to climb or to work from, it must be secured so that it does not fail while an employee is on it. The pole can be secured by a line truck boom, by ropes or guys, or by lashing a new pole alongside it.

In accordance with "Host Employer" requirements of OSHA 1910.269, the Company will provide guidance on tagging of "danger" poles. Also see **Section 4.2**.

6.12. Overhead Transmission Lines

For work on transmission circuits, red tape shall be placed around any energized pole, pole structure or tower adjacent to the de-energized line on which work is to be done.

When one circuit of a double circuit pole or tower line is de-energized for work, a red or orange flag shall be placed on the energized side of the pole or tower nine feet below the lowest energized conductor. In addition, on the side toward the energized circuit, a red or orange flag shall be placed at each arm level as employees work on them, or pass them, on the tower cage.

All Contractors using ATVs for transmission or forestry work are required to follow all local requirements for PPE and driving safety.

6.13. Underground Operations Work

This section applies to all Contractors, as-needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to underground operations work.

PPE Requirements

All Contractors shall ensure appropriate PPE is utilized in accordance with applicable requirements and the guidance provided in this document.

Enclosed Space Monitoring and Ventilation

The Contractor shall test each space prior to removing manhole lids and prior to entry in accordance with OSHA 1910.146 and 1910.269.

Atmospheric testing must be continuous for the duration of the entry using an industry-approved monitor.

When performing hot lead work or when indicated by atmospheric monitoring, engineering controls such as forced mechanical ventilation must be used when working in Company manholes during the entire performance of the work.

Enclosed Space Entry and Non-Entry Rescue

All manhole and sidewalk vault entry shall be conducted in accordance with Company confined space procedures.

All Contractors who are qualified electrical workers will treat these spaces as “enclosed spaces” and follow non-entry rescue provisions.

Steel cable or wire rope for non-entry rescue is prohibited.

Equipment Safety Inspection

Inspect underground facilities (manholes, vaults, handholes, splice boxes, junction boxes, padmount transformers, switchgear and submersible equipment) each time a crew performs work at one of these facilities.

“Touch potential” testing of metal street lighting poles is required to be performed as a part of any maintenance work.

All Contractors working for the Company shall use materials and equipment in accordance with the manufacturing guidelines. It is the Contractor’s responsibility to understand the manufacturers’ limits and prescribed use of their tools and equipment before each use.

6.14. Substations

This section applies to all Contractors, as-needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to work in Company substations.

PPE Requirements

All Contractors shall ensure appropriate PPE is utilized in accordance with applicable requirements and the guidance provided in this document.

Contractors will ensure FRC requirements are adhered to within substations.

Contractors will wear an electrical flash PPE ensemble when switching disconnects or grounding in areas of indoor substations in accordance with placards.

Fall arrest or fall restriction devices shall be used when working at heights over four feet, with the exception of ladder use.

Rubber gloves and Fire Resistant Clothing (FRC) are required when hand digging in a substation in or around energized conductors, and shall meet the requirements referenced in **Section 6.2** for FRC.

Contractors who perform any ground breaking activities in a substation within a pre-marked area will require Dig Safe marks to be in place; otherwise, the job must be suspended and a Company contact notified of the condition.

When using non-insulated man-lifts, and if provided by the manufacturer, a secure point of attachment for lifelines, lanyards or deceleration devices shall be utilized which is independent of the means of supporting or suspending the employee.

Notification of Control Authority When Entering a Substation

Before a Contractor enters and immediately after a Contractor exits a Company substation, the Contractor must notify the Energy Control Center (ECC). While work is being conducted, gates must be monitored at all times or the gates shall be closed and locked.

Unescorted entry into substations can only be provided to Contractors who provide assurance that their employees and subcontractors are electrically qualified as specified in OSHA 1910.269.

Substation Work Area Identification

Contractors who will be working in substations shall follow Company Safety Procedures and Company Standard Operating Procedures as designated in the pre-construction meeting or Health and Safety Plan.

Qualified Contractors shall install their own work area identification. The Company shall arrange work area identification for non-qualified workers as required.

Herbicide Application

Substation vegetation spraying shall be conducted unescorted only by Contractor employees who have been designated as a Qualified Electrical Workers where applicable.

The spray applicator will have ID cards issued by Security with background checks available from the Contractor.

Substations and Production management shall require a schedule of the spraying in their areas.

Once spraying begins, the Contractor must contact local management on a daily basis to inform them of progress or changes to the schedule.

The Contractor must post all stations with dated signs indicating when the station was sprayed. These signs should not inhibit access to the station.

The Contractor shall take care to prevent that any stored materials and equipment do not get covered with "overspray". Overspray represents a substantial safety hazard and cannot be allowed.

When applying herbicides, contract employees shall wear goggles and other appropriate PPE to protect them from contact with herbicides in accordance with product labels.

6.15. Gas Operations Work

This section applies to all Contractors, as-needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to Gas Operations work.

PPE Requirements

All Contractors shall ensure appropriate PPE is utilized in accordance with applicable requirements and the guidance provided in this document.

The Contractor shall wear all appropriate PPE and Class 2 rubber gloves for personal protection when digging or probing near (within two feet) of known electrical conductors, and when the location of energized conductors is unknown.

Gas Operations

All Contractors must meet the requirements of drug and alcohol testing in accordance with DOT 49 CFR Part 199.

Any Contractor who performs covered tasks shall be operator qualified (OQ) as defined in the DOT 49 CFR Subpart N and all applicable state requirements pursuant to the state the Contractor is working in. Additionally, any qualifications of Contractor personnel shall be in full accordance with the Company's written OQ Plan. Refer to the most current list of covered tasks in accordance with the Company OQ Program and the Northeast Gas Association (NGA).

The OQ status of Contractor employees must be regularly updated and accessible via an on-line database by Company management. This listing must detail employees' current qualifications, current tasks to which they are qualified and the next recertification date, and provide documentation and a letter of assurance on their qualified workers as referenced in **Section 3.2**.

Contractor personnel involved with covered tasks may require certification by the Company and an orientation of the involved tasks and Company standards. The Company reserves the right to validate Contractor qualifications prior to performing Live Gas work.

Atmospheres are to be tested with a properly calibrated Combustible Gas Indicator (CGI) or Gas Measurement Instrument (GMI) in accordance with Company excavation procedures, as required.

Each employee in an excavation shall be protected from cave-ins by an adequate protective system, such as sloping, benching or an appropriate shoring system.

At minimum, an approved 20-pound ABC fire extinguisher must be at the worksite and readily available during all routine and live gas operations, as conditions warrant.

6.16. Forestry and Vegetation Management

This section applies to all Contractors, as-needed.

In addition to the other requirements referenced in this document, this section covers requirements that are specific to vegetation management work.

PPE Requirements

For work along roads and other areas of vehicular traffic, Contractors shall wear class III high visibility clothing or vests, in addition to other PPE appropriate to the work.

Flame Resistant Clothing is not required per the OSHA applicable Forestry standard. Forestry Contractors must instead wear natural fiber clothing when working within 10 feet of energized equipment.

Forestry Contractors must wear a properly adjusted full-body harness connected to an appropriate lanyard when working from an aerial lift. The lanyard must connect to an attachment anchored to either the boom or bucket mounting hardware. Attachment points anchored through only the fiberglass portion of the bucket are not acceptable.

Forestry Contractors will be required to wear chaps while operating a chainsaw or when assisting and/or working in close proximity to a chainsaw that is being operated.

Saws shall not be left unattended with the engine running.

The chain saw shall be started on the ground or where otherwise firmly supported. Drop starting a chain saw is prohibited.

One handed operation of a chain saw is prohibited.

When a Contractor employee carries a saw, the engine shall be off and/or covered, or the saw shall be carried with the blade to the rear and locked.

Equipment and Work Methods

Forestry Contractors will be required to utilize fiberglass sticks and stick saws for work around energized equipment, and to test/document their integrity annually. Test results and expirations shall be available on each vehicle as needed.

Forestry Contractors will be required to perform and document dielectric testing of all aerial units annually. Test results and expirations shall be available on each vehicle as needed.

By April 1st of each year, the Contractor shall provide a list of employees that could reasonably be expected to work on Company property. This listing shall include:

Identification of the current pay classification of each employee;

The date of progression to their current pay level;

The dates each employee completed each level of the Contractor line clearance tree trimmer training program;

The dates each employee completed their required OSHA safety and other training, or retraining, including any annual refreshers;

The date each employee last demonstrated their tree rescue and climbing proficiency, where applicable;

The date each employee last completed First Aid and CPR training; and

Identification of each certified pesticide applicator, their certification number and category certified.

Training

Forestry Contractor management will be required to attend safety council meetings hosted by the Company, as required. The Contractor will ensure that all appropriate safety personnel for Company territory are in attendance.

Forestry Contractors shall implement and provide the required training and certification programs necessary to provide OSHA-defined Qualified Line Clearance Tree Trimmers or Qualified Line Clearance Tree Trimmer Trainees.

All Contractors using ATVs for transmission or forestry work are required to follow all local requirements for PPE and driving safety.

Herbicide Applications

Forestry Contractor requirements for vegetation spraying are referenced in **Section 6.16**.

6.17. Safe Vehicle Operations

This section applies to all Contractors, as-needed.

Contractors are required to comply with the requirements of all federal, state and local regulations as well as their own Company policies for safe vehicle operations and licensing. In addition, the Company expects all Contractors to comply with regional as well as the Company policies that may apply.

7. EXCEPTIONS

This document does not reference actions that are required by other laws, rules or regulations. These are requirements that should be understood by the Contractor, and Contractor compliance with all applicable federal, state and local laws, rules and regulations is expected by the Company as a contractual condition.

8. MULTI-EMPLOYER WORKPLACE

For multi-employer work-sites, the general Contractor is responsible for all their employees and subcontractors. The safety plan shall clearly state this responsibility.

9. PROGRAM EVALUATION

The dates of reviews and revisions will appear on the last page of the program in the section titled “Reason for Change”.

Health and Safety shall have primary responsibility for annually reviewing this document, soliciting comment from stakeholders, and revising as necessary. The requirements of this policy or any future revision thereof, shall be effective the date of its issue unless otherwise noted.

10. RECORDKEEPING

The Contractor Safety Guide and subsequent reviews and revisions will be maintained by Avangrid Health and Safety. The Contractor Safety Guide shall be made accessible, by the contractor, to all field operations. The paper versions of the program will not be document controlled. The official, current version of this program may be obtained through your Avangrid contact person and / the ISNetwork website.

11. DEFINITIONS

Contracted Services: refers to any activity that is conducted by an organization or individual under the terms of a purchase order. Contracted services may include all types of construction and maintenance services, tree trimming, building maintenance and demolition, electrical structure dismantling, site restoration, engineering design, recycling and waste disposal, drilling, rigging, electrical, and utility pole/structure maintenance.

Project Management and Construction Delivery (P&CM): a department that provides project management expertise to other Company departments, especially for construction and large maintenance projects.

Contractor Orientation: intended to serve as a resource in order to provide the Contractor with the tools necessary to educate their employees and subcontractors. The session is not intended to train the Contractor management, their employees or subcontractors. The extent and content of the orientation session shall be commensurate with the scope and type of the Contractor’s activities.

Contractor Safety Requirements: this document outlines Company Contractor safety expectations. Procurement provides this document to all prospective Contractors. This document can be found on the Company Health and Safety intranet.

Core Business Functions: the Company core business functions are transmission and distribution of electricity, and distribution of natural gas.

Owner’s Representative: a Company employee or representative who is assigned to certain P&CM-contracted projects to check that the work is being performed in accordance with the contract, including the safety requirements.

Operator Qualifications (OQ): as defined in Transportation 49 CFR 192.801 through 192.809 and/or DOT pipeline qualified for gas Contractors doing work at the Company. Additional state requirements pursuant to the state the Contractor is working may be required. Other training may include American Gas Association (AGA) and The Northeast Gas Association (NGA).

Pre-Construction (Kick-Off) Meeting: a meeting arranged by the user prior to commencement of work by the selected Contractor(s).

Project Safety Plan: a project-specific document prepared by the Contractor prior to the pre-construction meeting. In this plan, the Contractor shall identify all significant tasks, their anticipated hazards and mitigation steps. It is the Contractor's responsibility to conduct their own risk assessment and to ensure that their project safety plan addresses all anticipated hazards.

Project/Service: a planned operation that is characterized by an activity, such as construction of a substation, which has a defined timeline and project close-out, and is typically secured under a one-time Purchase Order (PO). A service would be an activity that tends to be on-going and repetitive such as setting distribution poles where there is no defined project-close-out. Service work is typically secured under a Blanket PO. Both terms have been used interchangeably to describe the nature of the contracted service.

Project Team: a group that consists of the individuals involved with Contractor procurement and management; typically, a purchasing agent, user and Health and Safety representative.

Purchase Order (PO): an agreement/contract between the Company or one of its affiliated Companies and a Contractor to provide contracted services and/or materials. The PO is set up by Procurement. The term "Contract" and "PO" are similar and may be used interchangeably. A "Blanket PO" is set up for Contractors whose work is on-going. A "One-time PO" is set up for project work.

Qualified Electrical Worker: a person knowledgeable in the construction and operation of the electrical power generation, transmission and distribution equipment involved and the associated hazards.

Qualified Gas Worker: any Contractor who performs covered tasks shall be operator qualified (OQ) as defined in DOT Part 192 Subpart N and all applicable state requirements pursuant to the state the Contractor is working in. Additionally, any qualifications of Contractor personnel shall be in full accordance with the Company's OQ Plan. Refer to the most current list of covered tasks in accordance with the Company OQ Program and the Northeast Gas Association (NGA).

Requisition: a formal request by the user for Procurement to create a PO.

Request for Proposal (RFP): also known as the bidding document. It consists of the documents prepared by the user and Procurement that are submitted to bidders. The bidders submit their proposals or bids in response to the RFP documents.

Risk and Hazard: a hazard is an object, situation or activity that has the potential to cause harm. Risk is the likelihood or chance for the harm to occur.

Risk Assessment: the process of identifying hazards and calculating or ranking the associated risks according to:

- The likelihood of occurrence;
- The severity of the harm from the hazard; and
- The amount of time of exposure to the hazard.

User: a Company department, work group, engineer or other individual who directs a contracted service. Departmental management can assign responsibility to others, within or outside their department, to a Contractor hired to manage the project. Where project management duties are shared, it is the responsibility of the User to coordinate and specify the User's Representative's duties.

User's Representative: the User may designate a User's Representative to perform all or part of the User's duties. The User's Representative may include personnel who are engaged in various facets of Contractor management as designated by the User. It is the responsibility of the User to specify the extent of project oversight and responsibilities that shall be required of the User's Representative.

12. SUMMARY OF CHANGES

Effective Date	Section Number	Title	Description	Approved By:
8/5/2017	6.1	6.1.Flame-Resistant Clothing (FRC) Requirements	Change in scope for FRC requirements.	Jay Wahlberg
03/23/2018	6.14	Substations	Changes to FRC language.	Jay Wahlberg
07/2/2018	6.11	Overhead Line Work	Addition of pole delivery placement requirements.	Jay Wahlberg
07/2/2018	All	Format Change	Corrected Fonts	Jay Wahlberg

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