



AGREEMENT

FOR

Testing and Commissioning Services

[Redacted text block]

MASTER SERVICES PROCUREMENT AGREEMENT

THIS MASTER SERVICES PROCUREMENT AGREEMENT is made this 2nd day of June, 2021 by and between **AVANGRID Service Company**, a Delaware Corporation, with offices located One City Center, 5th Floor, Portland, ME 04101 (hereinafter, “Company” or “Customer” or Owner) and [REDACTED] (hereinafter, “Supplier” or “Vendor” or “Contractor”). AVANGRID Services Company and Supplier may be referred to individually as a “Party” and collectively as the “Parties.”

WITNESSETH:

WHEREAS, AVANGRID Service Company is authorized to assist the utility operating company subsidiaries of AVANGRID Service Company 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 subsidiaries of AVANGRID Services Company 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, AVANGRID Service Company 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 AVANGRID Service Company 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) “Company” or “Customer” shall mean AVANGRID Service Company and any subsidiary operating company that Supplier may provide services or work under this Agreement as well as any of the Affiliates of AVANGRID Service Company specified in Schedule A, attached hereto and made part hereof.
- (c) “RFP” shall mean a request for proposal for the Services which shall include a reasonably detailed description of the Services required by the Company(ies).
- (d) “Services” shall mean the services described in Schedule B, attached hereto and made part hereof.
- (e) “Terms and Conditions” shall mean the terms and conditions governing the performance of the Services and related matters pursuant to a Purchase Order, the form of which is set forth in Schedule C, attached hereto and made part hereof.
- (f) “Project” means the Testing and Commissioning of the Fraser Substation project under this Agreement pursuant to which the Supplier will provide the Services.
- (g) “Purchase Order” shall mean a purchase order issued by AVANGRID Service Company or a Company in accordance with this Master Agreement.
- (h) The “Effective Date” shall mean June 2, 2021.
- (i) “Term” shall mean the term of this Master Agreement, as extended or terminated early in accordance with this Master Agreement.
- (j) “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.

2. PROCESS FOR AWARDING SERVICES

2.1 AVANGRID Service Company agrees that, upon a request made to AVANGRID Service Company by a Company for assistance in procuring Services, AVANGRID Service Company 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. AVANGRID Service Company 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) AVANGRID Service Company 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 AVANGRID Service Company, 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 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, AVANGRID Service Company and/or the Company(ies) shall review the Supplier's proposal. If AVANGRID Service Company 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, the Company 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) to the Supplier at the address specified in Section 6.1, 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, AVANGRID Service Company makes no representation or warranty that AVANGRID Service Company or any Company(ies) will issue any Purchase Orders or RFP's, or any minimum dollar volume of Purchase Orders or RFP's, during the Term of this Master Agreement. AVANGRID Service Company or the Company(ies) requesting Services may terminate a Purchase Order or RFP for such Services at any time, without penalty or other obligation, prior to commencement of performance of the Services by Supplier in accordance with the terms therein.

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

(c) Supplier further acknowledges that each Purchase Order processed in accordance with this Article 2 and issued to Supplier by AVANGRID Service Company or a Company and accepted 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) The Terms and Conditions attached hereto as Schedule C, as they may be amended or modified for the particular Purchase Order;

- (iii) The Scope of Services document attached hereto as Schedule B, as it may be amended, modified or supplemented for the particular Purchase Order; and
- (iv) This Agreement, including all Schedules other than those described in subsections (i), (ii), and (iii) 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), and (iv), 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 Master 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.

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 AVANGRID Service Company or any Company(ies) during the relevant time period.

(b) Within thirty (30)-days following each anniversary of the Effective Date of this Master Agreement, Supplier shall forward to AVANGRID Service Company 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. AVANGRID Service Company 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 AVANGRID Service Company 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 AVANGRID Service Company 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 Master 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 AVANGRID Service Company 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 AVANGRID Service Company or any other Company(ies), for any charges, fees, expenses, or claims arising from or attributable to Services rendered by Supplier pursuant to such Purchase Order; and
- (d) Supplier shall, to the fullest extent permitted by law, hold AVANGRID Service Company and the other Company(ies) and their respective employees, agents, officers, shareholders, and directors 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 Company(ies) and its employees, agents, or representatives pursuant to such Purchase Order, except to the extent solely and directly caused by Customer's gross negligence or willful misconduct.

5. TERM

5.1 This Master Agreement shall remain in effect until terminated according to section 5.2 below.

5.2 (a) AVANGRID Service Company may terminate this Master Agreement at any time and for any or no reason upon thirty (30) days' prior written notice. Upon the effective date of termination specified in AVANGRID Service Company's termination notice: (i) all RFP's, 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 RFP's, proposals, and/or Purchase Orders, and (ii) this Master Agreement shall be terminated without liability or obligation to the Parties, except for any liabilities and obligations arising under any Purchase Orders for which Supplier has already begun to provide Services. AVANGRID Service Company shall have no liability for any costs, expenses, or other fees incurred by Supplier in connection with any RFP's, proposals, or Purchase Orders that are in process but for which provision of Services has not begun upon the effective date of termination of this Master Agreement by AVANGRID Service Company.

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

6. GENERAL

6.1 Notices. All notices, requests, demands, and determinations under this Master 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. 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 Master Agreement and performance under it shall be governed by and construed in accordance with the laws of State of New York; as such laws are applied to contracts between residents that are entered into and to be performed entirely within New York.

6.3 Binding Nature and Assignment. This Master 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, except that AVANGRID Service Company may assign this Master 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 Master 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 Master 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 Master 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 AVANGRID Service Company and has no authority to represent the AVANGRID Service Company as to any matters, except as expressly authorized in this Master Agreement.

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

AVANGRID Service Company

DocuSigned by:
Robert Fitzgerald
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Signature

Robert Fitzgerald

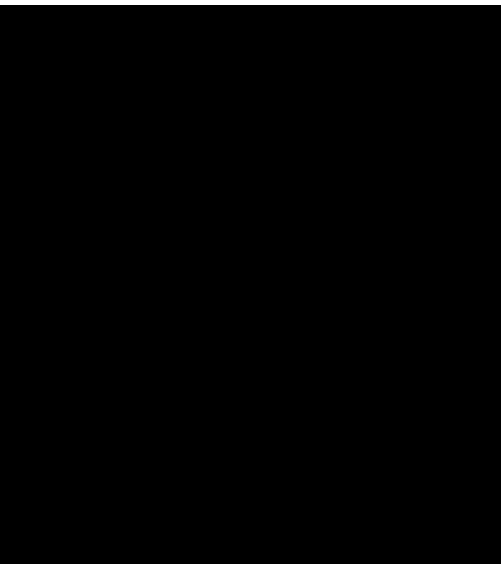
Print Name

VP - Controller AGR Networks

Title

6/28/2021

Date



AVANGRID Service Company

DocuSigned by:
Catherine Stempien
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Signature

Catherine Stempien

Print Name

President & CEO, Avangrid Networks

Title

6/25/2021

Date

SCHEDULES:

- Schedule A: Companies
- Schedule B: Services
- Schedule C: Terms and Conditions
- Schedule D: Compensation
- Schedule D-1: PayCU Pricing
- Schedule D-2: Fully-Burdened Hourly Labor Rates
- Schedule E: Special Conditions
- Schedule F: Notices
- Schedule G: Insurance Requirements
- Schedule H: Background Check Requirements
- Schedule I: Data Security Rider
- Schedule J: Provisions relating to Time, Changes, Claims and Resolution of Disputes
- Schedule K: Certifications
- Schedule L: AVANGRID Contractor Safety Guide
- Schedule L-1: AVANGRID Contractor Safety Requirements
- Schedule M: Clarifications

SCHEDULE A

Companies

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

SCHEDULE B

Services

Supplier shall provide the Services as set forth in the BES Substation Commissioning Scope of Work Document BES-2-06-J-0502 Rev 1 [REDACTED]



TESTING & COMMISSIONING DEPT.
SUBSTATION COMMISSIONING SCOPE OF WORK

PROJECT

PROJECT: BIG TREE, ERIE ST & FRASER **DATE:** 6/8/2020
BUSINESS: ELECTRIC **REVISION:** 1
CHAPTER: ENGINEERING
IDENTIFICATION: BES-2-06-J-0502

REVISION CONTROL

<i>REVISION</i>	<i>DATE</i>	<i>BY</i>	<i>COMMENTS & NOTES</i>
0	3/31/2020	ZO	First Issue
1	6/8/2020	ZO	Issued for Bid
2			
3			
4			
5			

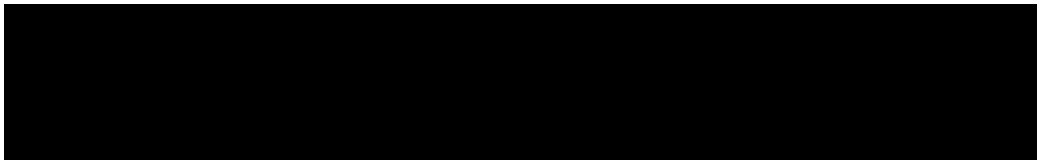


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SUBSTATION COMMISSIONING SCOPE OF WORK

TESTING & COMMISSIONING DEPT.

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1.0 INTRODUCTION

Avangrid is soliciting proposals for Substation Commissioning Services as described herein.

1.1 Overview

Avangrid requires the services of a **COMMISSIONING TEAM** to provide services necessary to verify that Protection & Control, Automation & Integration, and Network & Security Systems function as designed. The selected **SUPPLIER** will complete the scope of work specified in this document.

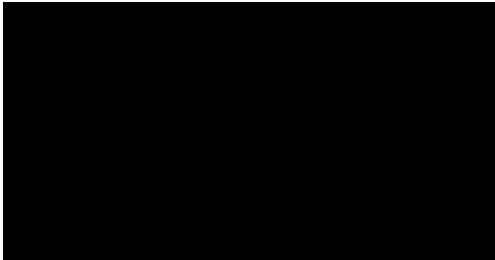
Avangrid is providing the following services separately for this **PROJECT**, using internal or external resources as determined by the **OWNER**:

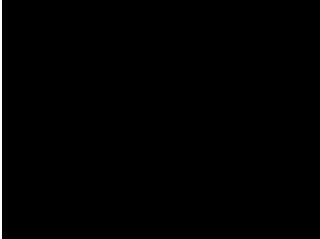
- SP&C 1-2 Detailed Design
- SP&C 3-7 Settings Design
- SP&C 3-7 Onsite Settings Installation
- Owner Engineering Review & Oversight
- Construction Management
- Construction & Equipment Procurement
- Above Ground Construction & Installation
- Construction & Equipment Testing Services

Unless otherwise noted, the Substation(s) and Circuit(s) described in this document are owned, operated, and maintained by Avangrid and/or its Operating Companies.

1.2 Anchor Substation(s)

The primary project location is referred to in this SOW as an **ANCHOR SUBSTATION**. This RFP includes work at one or more **ANCHOR SUBSTATIONS** noted below:

Anchor Station Name:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	

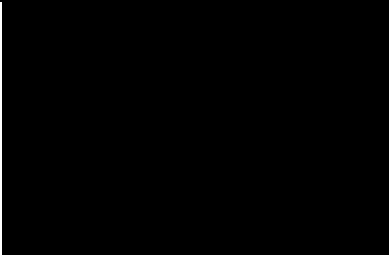
Anchor Station Name:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	





SUBSTATION COMMISSIONING SCOPE OF WORK

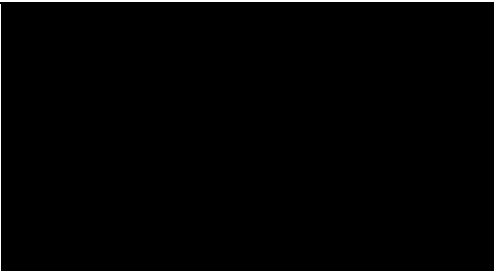
TESTING & COMMISSIONING DEPT.

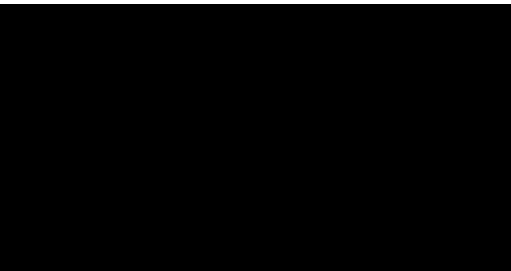
Anchor Station Name:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	

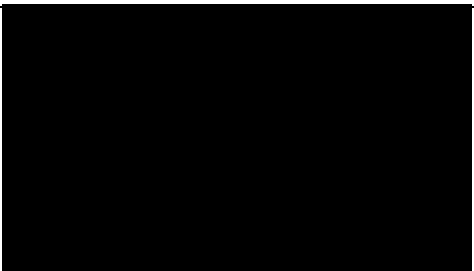
1.3 Remote End Substation(s)

Related project locations are referred to in this SOW as **REMOTE END SUBSTATIONS**. This RFP includes work at one or more **REMOTE SUBSTATIONS** noted below:

Remote End Station:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	

Remote End Station:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	

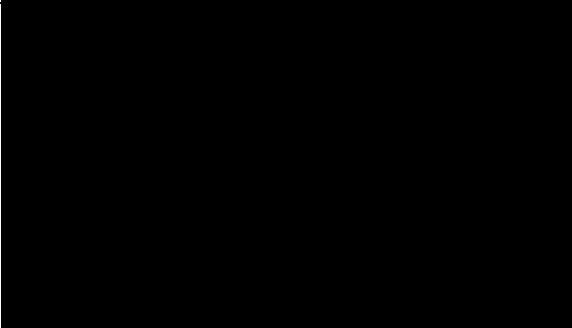
Remote End Station:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	

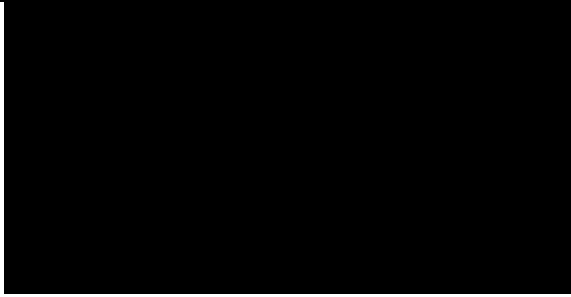
Remote End Station:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	

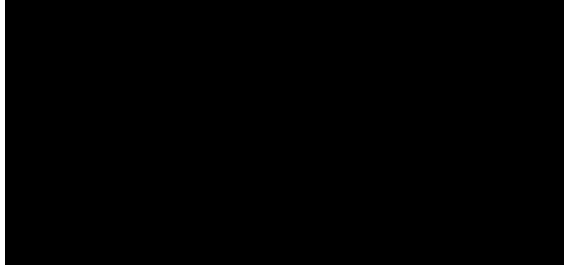


SUBSTATION COMMISSIONING SCOPE OF WORK

TESTING & COMMISSIONING DEPT.

Remote End Station:	
Station NERC/CIP Classification	
Street Address:	
City, State Zip Code:	

Remote End Station:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	

Remote End Station:	
Station NERC/CIP Classification:	
Street Address:	
City, State Zip Code:	





1.4 Definitions

The following terms are use in this document.

COMMERCIAL TERMS

OTHER RESOURCES

OWNER	Avangrid and any of its subsidiaries which will be the final OWNER and operator of the substation(s) and/or circuit(s) affected by the PROJECT . Any reference to AVANGRID, IUSA, RG&E, NYSEG, CMP or UI in this RFP or any document related to this RFP is deemed as a reference and shall also mean OWNER .
BIDDER	Firms invited by the OWNER to bid on the Scope of Work (SOW) defined in this Request For Proposal (RFP).
SUPPLIER	Firm awarded a contract by the OWNER to perform the Scope of Work defined herein.
PROJECT	All parts of the proposed work involving the substation(s) and/or circuit(s) as defined by the Scope of Work provided in this document, including the ANCHOR SUBSTATION and REMOTE END SUBSTATIONS .
ANCHOR SUBSTATION	The primary PROJECT location for this Scope of Work.
REMOTE END SUBSTATION(S)	Additional substations with work related to <u>and included</u> in this Scope of Work.
ISNETWORLD	Third-party service contracted by Avangrid to collect pre-qualification information for review by OWNER . Membership in and a passing grade from ISNETWORLD is required for any firm bidding.
SP&C 1-2 ENGINEER	The professional engineering firm hired by the OWNER to perform conceptual and detailed engineering for SP&C Packages 1 & 2. This work is defined under a separate Scope of Work <u>not</u> included herein.
SP&C 3-7 ENGINEER	The professional engineering firm hired by the OWNER to perform detailed engineering for SP&C Packages 3 - 7 and Onsite System Setup services. This includes all Protection & Control Settings, Automation & Integration Settings, and Network & Security Settings. This work is defined under a separate Scope of Work and is <u>not</u> included herein.
ABOVE GROUND CONTRACTOR	The firm hired by the OWNER to perform construction for all aspects of the PROJECT . This work is defined under a separate Scope of Work and is <u>not</u> included herein.

SUBSTATION COMMISSIONING SCOPE OF WORK

TESTING & COMMISSIONING DEPT.

SUPPLIER RESOURCES

ABOVE GROUND TESTING CONTRACTOR The **ABOVE GROUND CONTRACTOR'S** staff or subcontractor performing Equipment, Installation and Wiring Testing for the **PROJECT**. This work is defined under a separate Scope of Work and is not included herein.

COMMISSIONING TEAM The **SUPPLIER** selected to perform SP&C 3-7 Testing and Commissioning for the **PROJECT**. This work is defined herein.

TESTING & COMMISSIONING ENGINEER **SUPPLIER'S** lead testing and commissioning engineer who will oversee the commissioning activities.

TESTING & COMMISSIONING TECHNICIANS **SUPPLIER'S** testing and commissioning engineers and technicians who will perform the commissioning activities.

OWNERS PROJECT MANAGER **OWNER'S** overall Project Manager

OWNERS CONSTRUCTION MANAGER **OWNER'S** representative. Specific tasks and role to be defined by Avangrid Capital Project Department.

OWNERS FIELD CONSTRUCTION MANAGER **OWNER'S** onsite representative. Specific tasks and role to be defined by Avangrid Capital Project Department.

OWNERS P&C ENGINEER Represents **OWNER** on the **PROJECT**, responsible for Protection & Control oversight.

OWNERS T&C ENGINEER Represents **OWNER** on the **PROJECT**, responsible for Testing & Commissioning oversight. (equivalent to Commissioning Manager OE)

DISPATCHER Authorized Employee of **OWNER** with the overall responsibility for operating AVANGRID's transmission system and for directing Switching, Tagging, and Clearance Procedures within the transmission systems.

OWNER RESOURCES

DOCUMENTS & PLANS

SWITCHMAN Authorized Employee of **OWNER** with the responsibility for performing Switching, Tagging, and Clearance Procedures within the transmission systems.

SWITCHING ORDER This is a formalized document written by the **DISPATCHER** and sent out for review to the clearance holder and switchman. The Switching Order describes the Step-by-Step procedure and verbal orders that will be issued by the **DISPATCHER** to the **SWITCHMAN**.

COMMISSIONING PHILOSOPHY **BIDDERS** have been provided (with this RFP) a copy of **OWNER'S** Testing and Commissioning Philosophy Manual with Appendixes. This defines in general terms the level & type of commissioning tests desired by the **OWNER**. The Testing and Commissioning Philosophy Manual will be used by the **SUPPLIER** to develop a site-specific Commissioning Plan for Protection and Control, Substation Integration, Network & Security Commissioning.

COMMISSIONING PLAN Formal plan provided by **SUPPLIER** that defines all commissioning activities. This plan is to be developed based on the **OWNER'S COMMISSIONING PHILOSOPHY**.

OUTAGE & ENERGIZATION PLAN Step by step procedure that identifies all work for each outage including de-energization of equipment, disabling equipment, verification, modifications, and re-energization.

1.5 Abbreviations

The following abbreviations are used in this document.

OPERATING COMPANIES	RG&E	Rochester Gas and Electric
	NYSEG	New York State Electric and Gas
	CMP	Central Maine Power
	UI	United Illuminating
SUPPORT SYSTEMS	PW	Avangrid's ProjectWise File Management System
	SERAFIN	Avangrid's File Transfer System
	SRM	Avangrid's Supplier Relationships Management System
DOCUMENTS	WBS	Work Breakdown Structure
	RFP	Request for Proposal
	SOW	Scope of Work
	SPR	System Protection Requirements
	PSMP	Protection Systems Maintenance Program
	DOR	Division of Responsibilities
DOCUMENT STATUS	IFB	Issued for Bidding
	IFR	Issued for Review
	IFA	Issued for Approval
	IFC	Issued for Construction
	IFU	Issued for Use
TECHNICAL	IED	Intelligent Electronic Device
	PED	Programmable Electronic Device
	RTU	Remote Terminal Unit
	P&C	Protection and Control
	A&I	Automation and Integration
	N&S	Network and Security
	ECC	Energy Control Center
	SCADA	Supervisory Control and Data Acquisition
	HMI	Human Machine Interface
	GIS	Gas Insulated Switchgear
	MOD	Motor Operated Disconnect
	DME	Disturbance Monitoring Equipment
	DSD	Digital Substation Database
	DNP3	Distributed Network Protocol
	NTP	Network Time Protocol
	IEC-61850	International standard defining communication protocols
	SP&C	System Protection and Control
	NPCC	Northeast Power Coordinating Council Inc.
	NERC	North American Electric Reliability Corporation

2.0 INSTRUCTIONS TO BIDDERS

Qualified firms are invited to submit a proposal as defined herein.

2.1 General

The **OWNER'S** Scope of Work has precedence over the **SUPPLIER'S** bid should there be any conflict between them, except for those points that have been offered as exceptions or variations (as defined within the specific chapter on exceptions & variations) which the **OWNER** has expressly accepted in writing.

The **BIDDER** shall notify the **OWNER**, in writing, of any deviation from this Scope of Works or the specifications/standards referenced within, highlighting the reason for such deviation. The notification shall follow the template provided.

The **BIDDER** shall notify the **OWNER** in writing should it not receive all documents and annexes referenced in this RFP. Omission of these documents does not relieve the **BIDDER** from responsibility for completion of the work. The **BIDDER** shall indicate to the **OWNER** any error or omission in the documents sent with the RFP.

The **BIDDER** shall keep all documents which constitute this request for proposal confidential. This information is part of the **OWNER'S** plans and as such, recipients are required to treat all such data or information as proprietary to the **OWNER**. Confidential data and information herein may not be disclosed to any other persons or entities and shall be used solely for purposes of developing **BIDDER'S** proposal in response to this RFP.

2.2 Submission of Tenders

This tender will be managed by means of Avangrid's SRM "Supplier Relationships Management" portal and all bids (technical and commercial) shall be sent via this tool.

Bids in which the technical and commercial proposals are not duly separated and which are not presented via this tool, may be rejected.

All communications and/or clarifications related to this bid must be submitted to the Avangrid Procurement Department contact listed in SRM.

All bid and **PROJECT** documents (drawings, calculations, specifications and delivered documentation) shall be submitted in the English language.

2.3 Development of Tenders

The general information contained in the Scope of Work is given as a guideline. The **BIDDER** must make their own determination concerning those details that might affect design, the scope of the supply, prices, risks, and obligations of the **BIDDER**.

2.4 Contents of Bid Package

Bid packages shall be provided in two separate sections as outlined below:

2.4.1 Section I – Technical Proposal

The Technical Proposal shall include the following sections:

[REDACTED] ral description of the proposed services.

[REDACTED]

- Bid Deviations Form - List of exceptions to the RFP, if any, must be documented in the given Deviations Form template. All Technical exceptions, clarifications, deviations from or assumptions related to the Technical Specifications shall be noted on the Deviation Form provided with the RFP. A specific reference to the document and paragraph related to the exception, clarification, deviation, or assumption must be included. Any deviations not listed within this document will not be considered.
- High level schedule outlining plan to complete the requirements of this RFP.
- Organization Chart containing personnel and their respective responsibility. Resumes for all key individuals proposed to work on the **PROJECT** shall be provided.
- Subcontractor Directory listing any proposed subcontractors and their function / responsibility on the **PROJECT**.
- Quality Documentation describing Quality Assurance plan. Please include Quality Certificate and any other qualifications pertaining to:
 - Avangrid SOP.E-CD.06.05 Site Contractor Quality Requirements
- Safety Policy Documentation describing BIDDER'S safety program. Please include qualifications pertaining to:
 - Avangrid Networks Contractor's Safety Guide – ANHS-SOP-021

*Note: **SUPPLIER** must have a passing grade from **ISNETWORLD** per **OWNER** requirements prior to commencing any onsite activity and must maintain a passing grade over the duration of onsite work. It is the bidder's responsibility to ensure they are enrolled in the program.*

2.4.2 Section II – Commercial Proposal

The Commercial Proposal shall include the following sections:

- Bid Proposal Form including cost estimations for all deliverables.
- Fully-Burdened Hourly Rates for additional Services that may be compensated on a time and materials basis as specified in the Bid Form and in Schedule D of the Agreement.

3.0 COMMERCIAL CONDITIONS

The commercial conditions that will regulate this contract are described in the Master Services Procurement Agreement (the "Agreement") executed between the **OWNER** and **BIDDER**, as well as the points described below:

3.1 Price

- Prices shall be submitted by the **BIDDER** using the Bid Form provided.
- Prices shall be fixed according to the conditions defined within the RFP.
- Both quoted total and unit prices are firm and not subject to revision during the life of the contract.
- All prices shall be quoted by the **BIDDER** in U.S. Dollars.

3.2 Payment Terms

Payments to the **SUPPLIER** for work satisfactorily performed shall be made in accordance with Schedule D of the Agreement.

3.3 Liquidated Damages

Any applicable liquidated damage terms are defined in the Agreement applicable to this contract.

3.4 Rejection of Deliverables

OWNER has the right to reject deliverables deemed to be incorrect, of insufficient quality or not to **OWNER** standards. **SUPPLIER** shall promptly correct all such deficiencies to the **OWNER's** satisfaction.

3.5 Ownership of Plans

All drawings, designs, specifications, calculations or any other document developed by the **SUPPLIER** which is to be delivered to the **OWNER**, as specified by the Bid Proposal Form and all requirements of the **PROJECT**, shall be subject to the provisions of the Ownership of Plans as set forth in the Agreement.

4.0 SCHEDULE

The **SUPPLIER** shall, within fifteen (15) calendar days after the date of Notice of Award, prepare and submit to the **OWNER** for acceptance, a Microsoft Project schedule showing, in detail, **SUPPLIER's** activities including but not limited to the mobilization/demobilization and onsite activities for the **PROJECT**.

As a minimum, deliverables listed in the Bid Form shall be shown on the schedule. If required for the **PROJECT**, the **OWNER** will provide **SUPPLIER** with a schedule of the **OWNER'S** procurement, construction or other durations for use by the **SUPPLIER** in preparing their schedule. This schedule, upon review and approval by the **OWNER**, will become the baseline schedule for deliverables. The approved schedule shall be submitted in its native, editable MS Project format.

This schedule will provide the basis for monitoring work progress and validating schedule information necessary to make timely management decisions about resources and action plans for recovery should delays occur. The baseline schedule should represent the execution of the work in terms of scope and sequence. The use of artificially constrained dates shall be held to a minimum. To the greatest extent practical, predecessors and successors will be applied to all tasks, in such a manner that the early start dates reflect the planned commencement for the execution of the tasks.

4.1 Milestone Schedule

The **PROJECT** schedule shall follow the general timeline provided in the table below, ensuring that all package delivery dates are met as specified. Note that all dates are subject to change.

PRELIMINARY MILESTONE DATES		
Deliverable Package	By	Anticipated Date
Notice of P&C Testing and Commissioning Contract Award – Big Tree – Anchor Station 1	OWNER	Jun, 2021
P&C Testing and Commissioning Contract Executed & PO Issued – Big Tree – Anchor Station 1	OWNER	Jun, 2021
Notice of P&C Testing and Commissioning Contract Award – Erie St – Anchor Station 2	OWNER	Jun, 2022
P&C Testing and Commissioning Contract Executed & PO Issued – Erie St – Anchor Station 2	OWNER	Jun, 2022
Notice of P&C Testing and Commissioning Contract Award – Fraser – Anchor Station 3	OWNER	Jun, 2021
P&C Testing and Commissioning Contract Executed & PO Issued – Fraser – Anchor Station 3	OWNER	Jun, 2021
ANCHOR STATION 1 – Big Tree		
ANCHOR STATION 1: SP&C 1-2 Detailed Design Package IFR	SP&C 1-2 ENGINEER	Sep 02 2019
ANCHOR STATION 1: SP&C 1-2 Detailed Design Package IFC	SP&C 1-2 ENGINEER	Sep 23 2020
ANCHOR STATION 1: SP&C 3-7 Settings Design Package IFR	SP&C 3-7 ENGINEER	June 20 2020

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PRELIMINARY MILESTONE DATES		
Deliverable Package	By	Anticipated Date
ANCHOR STATION 1: SP&C 3-7 Settings Design Package IFC	SP&C 3-7 ENGINEER	Feb 28 2021
ANCHOR STATION 1: SP&C 3-7 Settings Install/Configuration Onsite (Note: Allow minimum 1-week window for this task, longer as needed)	SP&C 3-7 ENGINEER	March 2022
ANCHOR STATION 1: Outage Sequence Plan IFR	SUPPLIER	Sep 2021
ANCHOR STATION 1: Commissioning Plan IFR	SUPPLIER	Sep 2021
ANCHOR STATION 1: Construction Complete	OTHERS	March 3 2022
ANCHOR STATION 1: Above Ground Equipment Testing Complete	OTHERS	Aug 2021
ANCHOR STATION 1: T&C Team Site Mobilization	SUPPLIER	Sep 2021
ANCHOR STATION 1: Specific Outage Construction Complete	OTHERS	TBA
ANCHOR STATION 1: Specific Outage Above Ground Equipment Testing Complete	OTHERS	TBA
ANCHOR STATION 1: Specific Pre-Outage Activities Complete	SUPPLIER	TBA
ANCHOR STATION 1: Specific Outage P&C Testing and Commissioning Complete	SUPPLIER	TBA
ANCHOR STATION 1: Final P&C Testing and Commissioning Complete	SUPPLIER	June 2022
ANCHOR STATION 1: Pre-Energization Tasks (Allow 1-week window between T&C completion and In-Service Date)	SUPPLIER	July 2022 - TBA as per each energisation
ANCHOR STATION 1: In-Service	SUPPLIER	July 2022
ANCHOR STATION 1: Final Commissioning Report Issued	SUPPLIER	July 2022
ANCHOR STATION 2 – Erie St.		
ANCHOR STATION 2: SP&C 1-2 Detailed Design Package IFR	SP&C 1-2 ENGINEER	May 24, 2020
ANCHOR STATION 2: SP&C 1-2 Detailed Design Package IFC	SP&C 1-2 ENGINEER	Oct 2, 2020
ANCHOR STATION 2: SP&C 3-7 Settings Design Package IFR	SP&C 3-7 ENGINEER	Oct 9, 2020
ANCHOR STATION 2: SP&C 3-7 Settings Design Package IFC	SP&C 3-7 ENGINEER	Jan 28, 2021
ANCHOR STATION 2: SP&C 3-7 Settings Install/Configuration Onsite (Note: Allow minimum 1-week window for this task, longer as needed)	SP&C 3-7 ENGINEER	Jan 10, 2023
ANCHOR STATION 2: Outage Sequence Plan IFR	SUPPLIER	Sep 1, 2022
ANCHOR STATION 2: Commissioning Plan IFR	SUPPLIER	Sep 1, 2022
ANCHOR STATION 2: Construction Complete	OTHERS	Dec 20, 2022

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PRELIMINARY MILESTONE DATES		
Deliverable Package	By	Anticipated Date
ANCHOR STATION 2: Above Ground Equipment Testing Complete	OTHERS	Feb 1, 2023
ANCHOR STATION 2: T&C Team Site Mobilization	SUPPLIER	Jun 1, 2022
ANCHOR STATION 2: Specific Outage Construction Complete	OTHERS	TBA
ANCHOR STATION 2: Specific Outage Above Ground Equipment Testing Complete	OTHERS	TBA
ANCHOR STATION 2: Specific Pre-Outage Activities Complete	SUPPLIER	TBA
ANCHOR STATION 2: Specific Outage P&C Testing and Commissioning Complete	SUPPLIER	TBA
ANCHOR STATION 2: Final P&C Testing and Commissioning Complete	SUPPLIER	Mar 10, 2023
ANCHOR STATION 2: Pre-Energization Tasks Allow 1-week window between T&C completion and In-Service Date	SUPPLIER	Mar 3, 2023 - TBA as per each energisation
ANCHOR STATION 2: In-Service	SUPPLIER	Mar 10, 2023
ANCHOR STATION 2: Final Commissioning Report Issued	SUPPLIER	Mar 24, 2023
ANCHOR STATION 3A – Fraser 115/46kV		
ANCHOR STATION 3: SP&C 1-2 Detailed Design Package IFR	SP&C 1-2 ENGINEER	Not applicable
ANCHOR STATION 3: SP&C 1-2 Detailed Design Package IFC	SP&C 1-2 ENGINEER	Feb 2021
ANCHOR STATION 3: SP&C 3-7 Settings Design Package IFR	SP&C 3-7 ENGINEER	Not applicable
ANCHOR STATION 3: SP&C 3-7 Settings Design Package IFC	SP&C 3-7 ENGINEER	Jul 2021
ANCHOR STATION 3: SP&C 3-7 Settings Install/Configuration Onsite (Note: Allow minimum 1-week window for this task, longer as needed)	SP&C 3-7 ENGINEER	Sep 2021
ANCHOR STATION 3: Outage Sequence Plan IFR	SUPPLIER	Oct 2021
ANCHOR STATION 3: Commissioning Plan IFR	SUPPLIER	Oct 2021
ANCHOR STATION 3: Construction Complete	OTHERS	Sep 2021
ANCHOR STATION 3: Above Ground Equipment Testing Complete	OTHERS	Oct 2021
ANCHOR STATION 3: T&C Team Site Mobilization	SUPPLIER	Oct 2021
ANCHOR STATION 3: Specific Outage Construction Complete	OTHERS	TBA
ANCHOR STATION 3: Specific Outage Above Ground Equipment Testing Complete	OTHERS	TBA
ANCHOR STATION 3: Specific Pre-Outage Activities Complete	SUPPLIER	TBA
sting and Commissioning	SUPPLIER	TBA

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PRELIMINARY MILESTONE DATES		
Deliverable Package	By	Anticipated Date
Complete		
ANCHOR STATION 3: Final P&C Testing and Commissioning Complete	SUPPLIER	Sep 2023
ANCHOR STATION 3: Pre-Energization Tasks Allow 1-week window between T&C completion and In-Service Date	SUPPLIER	Sep 2023 - TBA as per each energisation
ANCHOR STATION 3: In-Service	SUPPLIER	Feb 2022
ANCHOR STATION 3: Final Commissioning Report Issued	SUPPLIER	Oct 2023
ANCHOR STATION 3B – Fraser 345kV		
ANCHOR STATION 3: SP&C 1-2 Detailed Design Package IFR	SP&C 1-2 ENGINEER	Not applicable
ANCHOR STATION 3: SP&C 1-2 Detailed Design Package IFC	SP&C 1-2 ENGINEER	Jun 2021
ANCHOR STATION 3: SP&C 3-7 Settings Design Package IFR	SP&C 3-7 ENGINEER	Not applicable
ANCHOR STATION 3: SP&C 3-7 Settings Design Package IFC (Commencing with Transformer#3 and others as per outage schedule)	SP&C 3-7 ENGINEER	Sep 2021
ANCHOR STATION 3: SP&C 3-7 Settings Install/Configuration Onsite (Note: Allow minimum 1-week window for this task, longer as needed)	SP&C 3-7 ENGINEER	Nov 2021 (for Trf#3 & others progressively)
ANCHOR STATION 3: Outage Sequence Plan IFR	SUPPLIER	Oct 2021
ANCHOR STATION 3: Commissioning Plan IFR	SUPPLIER	Oct 2021
ANCHOR STATION 3: Construction Complete for last outage (In various intermediate stages to suit the outage sequence and schedule)	OTHERS	Jul 2023
ANCHOR STATION 3: Above Ground Equipment Testing Complete (In various intermediate stages to suit the outage sequence and schedule)	OTHERS	Jul 2023
ANCHOR STATION 3: T&C Team Site Mobilization (Commencing with Transformer#3 and others as per outage schedule)	SUPPLIER	Jan 2022
ANCHOR STATION 3: Specific Outage Construction Complete	OTHERS	TBA
ANCHOR STATION 3: Specific Outage Above Ground Equipment Testing Complete	OTHERS	TBA
ANCHOR STATION 3: Specific Pre-Outage Activities Complete	SUPPLIER	TBA
ANCHOR STATION 3: Specific Outage P&C Testing and Commissioning Complete	SUPPLIER	TBA
ANCHOR STATION 3: Final P&C Testing and Commissioning Complete (T&C to be completed at various phases and details to be provided on award)	SUPPLIER	Sep 2023
ANCHOR STATION 3: Pre-Energization Tasks Allow 1-week window between T&C completion and In-Service Date	SUPPLIER	Sep 2023 - TBA as per each energization
ANCHOR STATION 3: In-Service (Applicable for Transformer#3, other	SUPPLIER	Feb 2022

SUBSTATION COMMISSIONING SCOPE OF WORK

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PRELIMINARY MILESTONE DATES		
Deliverable Package	By	Anticipated Date
circuits switchovers as per the outage schedule)		
ANCHOR STATION 3: Final Commissioning Report Issued	SUPPLIER	Aug 2023
REMOTE END 1 - New Gardenville (Big Tree Remote End)		
REMOTE END New Gardenville (Big Tree Remote End) : Construction Complete	OTHERS	Nov 2021
REMOTE END New Gardenville (Big Tree Remote End) : Above Ground Equipment Testing Complete	OTHERS	Dec 2021
REMOTE END New Gardenville (Big Tree Remote End) : Relay settings implementation, Testing and commissioning	SUPPLIER	Dec 2022
REMOTE END 2 - Stolle Road (Big Tree Remote End)		
REMOTE END Stolle Road (Big Tree Remote End) : Construction Complete	OTHERS	Oct 2021
REMOTE END Stolle Road (Big Tree Remote End) : Above Ground Equipment Testing Complete	OTHERS	Dec 2021
REMOTE END Stolle Road (Big Tree Remote End) : Relay settings implementation, Testing and commissioning	SUPPLIER	Dec 2022
REMOTE END 3 - Davis Road (Big Tree Remote End)		
REMOTE END Davis Road (Big Tree Remote End) : Construction Complete	OTHERS	Oct 2021
REMOTE END Davis Road (Big Tree Remote End) : Above Ground Equipment Testing Complete	OTHERS	Dec 2021
REMOTE END Davis Road (Big Tree Remote End) : Relay settings implementation, Testing and commissioning	SUPPLIER	Dec 2022
REMOTE END 4 - Stolle Road (Erie St Remote End)		
REMOTE END Stolle Road (Erie St Remote End) : Construction Complete	OTHERS	Nov 2022
REMOTE END Stolle Road (Erie St Remote End) : Above Ground Equipment Testing Complete	OTHERS	Jan 2023
REMOTE END Stolle Road (Erie St Remote End) : Relay settings implementation, Testing and commissioning	SUPPLIER	Jan 2023
REMOTE END 5 - Oakdale Substation (Fraser Remote End)		
REMOTE END Oakdale Substation (Fraser Remote End-115kV) : Construction Complete – P&C modifications during outage of Line#919	OTHERS	Sep 2022
REMOTE END Oakdale Substation (Fraser Remote End-115kV) : Above Ground Equipment Testing Complete (P&C tests during outage Line#919)	OTHERS	Sep 2022

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PRELIMINARY MILESTONE DATES		
Deliverable Package	By	Anticipated Date
REMOTE END Oakdale Substation (Fraser Remote End-115kV) : Relay settings implementation, Testing and commissioning	SUPPLIER	Sep 2022
REMOTE END Oakdale Substation (Fraser Remote End-345kV) : Construction Complete – P&C modifications during outage of Line#32	OTHERS	Aug 2023
REMOTE END Oakdale Substation (Fraser Remote End-345kV) : Above Ground Equipment Testing Complete (P&C tests during outage Line#32)	OTHERS	Aug 2023
REMOTE END Oakdale Substation (Fraser Remote End-345kV) : Relay settings implementation, Testing and commissioning	SUPPLIER	Aug 2023
REMOTE END 6 - Jennison Substation (Fraser Remote End-115kV)		
REMOTE END Jennison Substation (Fraser Remote End) : Construction Complete– P&C modifications during outage of Line#949	OTHERS	Feb 2023
REMOTE END Jennison Substation (Fraser Remote End) : Above Ground Equipment Testing Complete(P&C tests during outage Line#949)	OTHERS	Feb 2023
REMOTE END Jennison Substation (Fraser Remote End) : Relay settings implementation, Testing and commissioning	SUPPLIER	Feb 2023
REMOTE END 7 - Coopers Corners Substation (Fraser Remote End 345kV)		
REMOTE END Coopers Corners Substation (Fraser Remote End) : Construction Complete– P&C modifications during outage of Line#33	OTHERS	Jul 2023
REMOTE END Coopers Corners Substation (Fraser Remote End) : Above Ground Equipment Testing Complete (P&C tests during outage Line#33)	OTHERS	Jul 2023
REMOTE END Coopers Corners Substation (Fraser Remote End) : Relay settings implementation, Testing and commissioning	SUPPLIER	Jul 2023

4.2 Outage Sequence Schedule

Below is a high-level Sequence of Outages which will be better defined in the Kick-Off Meeting:

- Big Tree – Refer to 3106-SPEC-009 for preliminary details
- Erie Street - Refer to 3126-SPEC-009 for preliminary details
- Fraser - Refer to following documents and supplementary information in table below:
 - Fraser 345 kV Outage One Lines
 - Fraser_Delhi Combined Outage Plan_Sep 13 2019
 - Fraser Construction & Outage Sequence - Temporary Wiring Requirement

No.	Outage Description	Anticipated Date
1	Outage to Fraser 345 kV Bus #4	January 2022
2	Outage to Fraser 345 kV Bus #8	December 2022
3	Outage to 345 kV line EF24-40 & series capacitor #2	April 2023
4	Outage to 345 kV line GF5-35	June 2023
5	Outage to the Fraser SVC	July 2023
6	Outage to 345 kV line 33 & series capacitor #3	July 2023
7	Outage to 345 kV line 32	August 2023

5.0 PROJECT MANAGEMENT

5.1 Site Access

Access to **OWNER'S** sites will be limited to normal business hours 7 AM to 5 PM (M – F) for the duration of work. Use of the **OWNER'S** site is restricted to **PROJECT** related activities only.

5.2 Safety

SUPPLIER must have a passing grade from **ISNETWORLD** per **OWNER** requirements prior to commencing any onsite activity and must maintain a passing grade over the duration of onsite work.

SUPPLIER is to follow all requirements as set forth in the Avangrid Contractor's Safety Guide at all times for low-risk, medium-risk and high-risk activities while performing work for **OWNER**.

Project Safety Plan. Prior to the commencement of the provision of the Services by **SUPPLIER**, the **SUPPLIER** shall submit to **OWNER** for review and approval the Project Safety Plan in accordance with Article 3.3 of the AVANGRID Contractor's Safety Guide. The **SUPPLIER'S** Project Safety Plan shall incorporate all applicable COVID-19 pandemic procedures, requirements, guidelines and protocols in connection with the Services, including, without limitation, those necessary for compliance with all Federal, State (New York State) and the and local Governing Laws and directives..

5.3 Meetings

Throughout the course of the **PROJECT**, the **SUPPLIER** shall attend a weekly conference call to report progress and discuss any issues for resolution. All key team members shall participate in these meetings. **SUPPLIER** will be responsible to generate minutes of meeting, updates to ProjectWise and distribution to attendees. Weekly meeting minutes shall be distributed by the **SUPPLIER** within 48 hours of the meeting.

The **TESTING & COMMISSIONING ENGINEER** shall attend regularly scheduled job meetings and/or progress and coordination meetings. Expect that job site meetings will occur on a bi-weekly (every other week) frequency for the total **PROJECT** commissioning duration. When required by the **OWNER**, the **TESTING & COMMISSIONING ENGINEER** shall attend all or a subset of these meetings.

Based on on-site observations as an experienced and qualified commissioning professional keep the **OWNER** informed, in writing, about the progress of the work and notify the **OWNER** of any defects or deficiencies in the design work.

5.4 Progress Reporting

During the **PROJECT**, the **SUPPLIER** shall provide a weekly report to provide a detailed description of all work performed, percentage of work completed, and to provide technical 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. The report shall include a detailed status of each deliverable on the Deliverable List and the specific status and action items for that item. **OWNER** and affiliate contractor(s) dependencies will be clearly communicated in the weekly report indicated via action log, the responsible individual, the notification date, the due date and the expected deliverable.

During the **PROJECT**, the **SUPPLIER** shall provide a schedule update on a weekly basis (at a minimum) showing progress as a percentage (%) complete against each baseline schedule activity. **OWNER** and [REDACTED] will be clearly communicated in the weekly report indicated via [REDACTED] e notification date, the due date and the expected deliverable.

Note: Any delays or updates to the PROJECT'S schedule should be reflected in the weekly report.

SUPPLIER'S work is accepted by receiving **OWNER'S** Certification of the documents as approved. The **SUPPLIER** will submit invoices attaching Certification of work packages of deliverables as listed on the Bid Form.

5.5 Project Team Organization

The **SUPPLIER** shall submit a team organization chart showing all individuals working on the **PROJECT** and their areas of responsibility. After the **OWNER** has approved this chart, only time for employees on this chart will be paid. Any personnel changes to the organization chart shall be submitted in writing and approved by the **OWNER** prior to the individual participation in the **PROJECT**.

5.6 Change of Scope

The **SUPPLIER** shall notify the **OWNER** of any work deemed to be outside of the agreed upon Scope of Work in accordance with Schedule J of the Agreement. A change order must be approved by the **OWNER** and issued to **SUPPLIER** prior to the start of said work in accordance with Schedule J of the Agreement. No out of scope or change of scope work will be paid without an approved change order.

5.7 Quality Assurance & Control

The **SUPPLIER** must have a quality system in place which will ensure compliance on their part and that of any subcontractors, with the requirements established in the RFP. During the offer phase, the **BIDDER** must provide a Quality Certificate (ISO 9001 or equivalent) or if the quality system is not certified, the **BIDDER** shall explain their system.

Once awarded, the **SUPPLIER** shall implement a Quality Control (QC) plan. The QC plan shall be developed utilizing the **SUPPLIER'S** QC procedure forms and controls in accordance with the **OWNER'S** Quality Assurance Procedures and Verification Protocols included as an attachment to this RFP.

The **SUPPLIER** shall be responsible for implementing the QC procedures in accordance with the developed plan, supplemented by additional controls, inspections and procedures as necessary to ensure the completed work meets the requirements of the scope of work, standards and requirements of the **OWNER**.

5.8 NERC/CIP Compliance

The **SUPPLIER** will be responsible for a wide range of information considered confidential. To aid in the **OWNER'S** compliance effort, the **SUPPLIER** must follow and comply with applicable **OWNER** CIP standards, including but not limited to:

- § Criminal Background Check for personnel
- § **SUPPLIER** and **OWNER** Annual CIP Training
- § Transmission of restricted information via secure, two-factor encryption system only.
- § Adherence to **OWNER'S** CIP policy including Transient Cyber Asset program

6.0 SCOPE OF WORK

The **COMMISSIONING TEAM** Scope of Work includes the following tasks:

- 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 Commissioning Engineer shall be aware of how existing schemes work today before making modifications during outages, construction and/or testing.
- Review relay settings and protection schemes prior to commissioning work with associated equipment.
- Validate **SP&C 3-7 ENGINEER** provided relay settings, logic diagrams (including Goose messaging diagrams), and operational descriptions for conformance to respective project. Coordinate with **SP&C 3-7 ENGINEER** and **OWNER** as needed for modifications as a result of the review process.
- Review **SP&C 3-7 ENGINEER** provided relay settings for all temporary builds and construction sequence steps including mobile settings.
- Development of Commissioning Plan & Procedures
- Development of Commissioning Forms to document test results. Develop detailed commissioning documentation needed to prepare for, execute, validate and record all commissioning results.
- Review and validate relay testing protocols and procedures as well as commissioning plans.
- Development of Commissioning Outage & Energization Plan
- Commissioning of all Protection & Control Settings and Systems
- Commissioning of all Automation & Integration Settings and Systems
- Commissioning of all 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 continuity, full functional, phasing tests to ensure the proper operation of all low voltage systems. Valid tests provide sufficient overlap with successful results.

[REDACTED] es and jumpers.

SUBSTATION COMMISSIONING SCOPE OF WORK**TESTING & COMMISSIONING DEPT.**

- 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.
- Calculate phasor magnitudes and angles as it pertains to testing and validation of test results and in-service checks.
- 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 [REDACTED] **NER**.

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- 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)

The **COMMISSIONING TEAM** Scope of Work does **NOT** include the following tasks:

- **ABOVE GROUND CONTRACTOR** procurement, construction or testing activities including Equipment, Installation and Wiring Testing tasks as specified in the ABOVE GROUND CONTRACTOR RFP and in the attached document "**T&C Dept - Testing & Commissioning Division of Responsibility Matrix**".
- **OWNERS T&C ENGINEER** review of all **ABOVE GROUND TESTING CONTRACTOR** deliverables.
- **OWNERS T&C ENGINEER** review and approval of all deliverables including but not limited to test plans, schedules and reports issued by the **COMMISSIONING TEAM**.

6.1 Introduction

This Scope of Work includes the deliverables and tasks for the **ANCHOR SUBSTATION** and for **REMOTE ENDS SUBSTATIONS** as described below:

LOCATION	SOW SUMMARY
ANCHOR STATION 1 – Big Tree	<p>Big Tree Substation is an existing air insulated 115/34.5kV substation located on Dorchester Road in Orchard Park Township, NY, with two (2) existing 115kV lines namely Davis Rd (line 904) and Langner Rd (Line 903) and connected to a 34.5kV main & transfer bus scheme thru two (2) 40/53/66(74) MVA 115kV/34.5kV Delta-Wye transformers designated as Bank #1 & Bank #2. The 34.5 kV bus feeds the following six (6) loads;</p> <ul style="list-style-type: none"> · Line 522 (Armor) · Line 523 (Erie Co) · Line 526 (Orchard Park) · Line 527 (Gardenville) · CIRC 528 · CIRC 539 <p>As part of the work proposed in South Lancaster Alternative 1 New York BES TLP Solutions Study, it is proposed that the 115kV bus will be rebuilt as three (3) bay breakers and a [REDACTED] If (BAAH) arrangement with nine (9) 3000A 145kV circuit</p>

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	<p>breakers and twenty-eight (28) motorized disconnect switches.</p> <p>National Grid Line 151 will be cut into two separate lines and terminated to the new BAAH arrangement. New line section from Big Tree to Cobble Hill will be renamed as Line 733, and North side termination on same will be renamed as Line 902. Associated remote end works on these lines will be executed by OTHERS, however any necessary coordination for testing and commissioning to execute these works is included.</p> <p>The existing transformer banks #1 & #2 will be relocated to the south side of the new BAAH yard. The LV side of the two transformers will be connected to the existing 34.5kV AIS substation yard via motorized disconnect switches, potheads and 35kV U/G cable.</p> <p>Existing two 115 kV capacitor banks with circuit breakers will be relocated in the new BAAH yard.</p> <p>Evaluation and update of existing settings for anchor substation and remote ends for 34.5kV lines and associated works is unknown at this time and will be clarified in the SP&C 3-7.</p>
<p><i>ANCHOR STATION 2 – Erie St.</i></p>	<p>Erie Street Substation is an existing 115/34.5/4.8kV substation located on Erie Street in North Lancaster, New York. As part of the work proposed in North Lancaster Area Primary Alternative from New York BES TPL Solutions Study, it is proposed to add 115kV Capacitor Banks and to upgrade limiting elements on line 921 (from Erie Street to Depew).</p> <p>The substation is an air insulated switching substation with three (3) existing 115kV lines namely Depew Tap (line 921), N. Broadway (Line 922) and Pavement Road (Line 926) now connected as a sectionalized bus and connected to a 34.5kV Main & Transfer bus scheme thru two (2) 30/40/50 MVA 115kV/34.5kV Delta-Wye transformers designated as Bank #1 & Bank #2. The 34.5 kV bus feeds the following nine (9) loads:</p> <ul style="list-style-type: none"> • Line 514 (Wehrle Drive) • Line 515 (Erie Water) • Line 521 (Cemetery Rd) • Line 525 (Alden) • Line 532 (Tyler) • Line 533 (Rein Road) • Line 555 (Girdle Road) • Line 518 (E. Aurora)

Two of the feeders from the 34.5kV bus feed a 4.8 kV Main & Transfer bus scheme via two (2) 7.5/9.375 MVA 34.5kV/5.04 kV Delta - Delta transformers designated Bank #3 & #4. The 4.8kV bus feeds the following loads:

- Circuit 202
- Circuit 203
- Circuit 205
- Circuit 207
- Circuit 208
- Circuit 209
- Provision for 2 future feeders (Circ 204 & 206)

The 115kV bus will be rebuilt as a 115kV, three (3) bay breaker and a half (BAAH) arrangement with eight (8) 3000A 145kV circuit breakers, two (2) 3000A 145kV IPO circuit breakers, two (2) 115kV 50 MVAR capacitor banks and twenty-five (25) breaker isolation switches (motorized). Two (2) new transformer Banks #1 & #2 (30/40/50 MVA 115/34.5kV) will be installed, with provision for a future identical Bank #5.

The secondaries of the two transformers will connect to a new 34.5kV/4.8kV switchgear building via motorized disconnect switches and potheads and 35kV U/G cable. The load side of the cable will connect to their designated main breaker cubicle inside the switchgear building via bottom entry.

The 34.5kV switchgear will be arranged in two bus lineups with provisions for a future third bus, each fed from either transformer Bank #1, #2 or future Bank #5. There will be one tie breaker and isolation switch connecting the two busses together for reliability. There will be seven (7) load feeders off of the 34.5kV switchgear line-up, two (2) future feeders plus one (1) GIS unit for a new 34.5kV outdoor capacitor bank. Two of the 34.5 kV GIS units will feed two (2) new transformer Banks #3 & #4 (12/16/20 MVA 34.5/4.8/12.47-7.2 kV).

The transformer Bank #3 & #4 4.8kV delta secondaries will feed 4.8kV breakers in a two (2) bus arrangement with a tie breaker and isolation switch connecting the two busses. There will be six (6) load feeders, two (2) future feeders and one (1) feeder for a new 2.7 MVAR outdoor capacitor bank.

ANCHOR STATION 3 - Fraser	<p>345 kV bays</p> <p>Currently Fraser substation has three breaker-and-a-half 345 kV bays:</p> <ul style="list-style-type: none"> · Bay #1 - 32 and 33 line terminals; · Bay #2 - GF5-35 line terminal and the Static Var Compensator (SVC); · Bay #3 - EF24-40 line terminal. <p>Existing 345 kV/115 kV/46 kV power Transformer #2 is directly connected to 345 kV bus # 8. Transformer #2 will be relocated to an additional 345 kV breaker-and-a-half bay (Bay #4).</p> <p>The existing 345 kV Bay #3 will be completed providing a position to terminate a new 345/115/46 kV Transformer #3.</p> <p>Shunt capacitor bank C1A will continue to be connected to 345 kV Bus #4, and shunt capacitor bank C2A will continue to be connected to 345 kV Bus #8.</p> <p>All existing 345kV protection and control equipment, shall be removed, and new panels with new protection and control equipment will be installed in a new 345 kV control house.</p> <p>See attached SPR document and Relay One Line Diagram for a detailed description of the 345 kV protection and control.</p> <p>115 kV new bays</p> <p>A new 115 kV yard consisting of four breaker-and-a-half bays:</p> <ul style="list-style-type: none"> · Bay #1 - 949 and 916 lines relocated from Delhi substation; · Bay #2 - 919 and 917 lines relocated from Delhi substation; · Bay #3 - 951 line to Colliers substation; · Bay #4 - Transformer # 2 and Transformer # 3 (four-breaker bay with two breakers between Transformer #2 and Transformer #3)A new control house will be built for the new 115 kV and 46 kV protection and control equipment. <p>See attached SPR document and Relay One Line Diagram for a detailed description of the 115 kV protection and control.</p> <p>46 kV new bays</p> <p>A new 46 kV yard consisting of two (2) straight busses and the following breaker terminals:</p>
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	<ul style="list-style-type: none"> · 824 line to Delhi Co-Op substation relocated from Delhi substation; · new 841 line to Delhi substation; · Transformer # 2 · Transformer # 3 · 46 kV bus tie · Grounding transformer · Station service transformer <p>A new control house will be built for the new 115 kV and 46 kV protection and control equipment.</p> <p>See attached SPR document and Relay One Line Diagram for a detailed description of the 46 kV protection and control.</p>
<p>REMOTE END SUBSTATION 1 - New Gardenville (Big Tree Remote End)</p>	<p>115kV Line 903 at New Gardenville is the Remote End to Big Tree (Line 903). This is an existing line with a pass through at Langner Road Substation. The line leaves Big Tree Substation between 115kV Circuit Breakers 90352 and B2/90352 to Langner Road Substation, where the line passes through. Line 903 then terminates at Circuit Breaker 90312 at New Gardenville substation.</p> <p>Line 903 is currently protected by electro-mechanical relays. The existing relaying will be replaced by a new SEL-411L System A Line protection relay and a new GE-L90 System B Line protection relay and a new JMUX will be installed to communicate the POTT and DTT for System A relay (SEL-411L). System B will be step distance only.</p> <p>A new JUMX with leased fiber line will be installed to communicate the system A POTT and DTT.</p>
<p>REMOTE END SUBSTATION 2 - Stolle Road (Big Tree Remote End)</p>	<p>Line 904 leaves Big Tree Substation between 115kV Circuit Breakers 90452 and B1/90452 and proceeds to Davis Road Substation, where two 115/34.5kV transformers and one 115/12kV transformer are tapped off the line. The line continues as Line 927 to Stolle Road Substation where it terminates at circuit breaker 92752.</p> <p>The line currently has electro-mechanical relaying for system 'A' and 'B' line protection. To integrate with the line protection for Line 904 being installed at Big Tree, based on input from the Avangrid engineering team, the line protection at the Stolle Road Substation terminus will be changed to an SEL-411L for System 'A', with piloting via Leased Line using JMUX . A GE-L90 will be used for System 'B', with no piloting. The breaker protection relay will not be upgraded.</p> <p>A new JUMX with leased fiber line will be installed to communicate the system A POTT and DTT.</p>

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<p>REMOTE END SUBSTATION 3 - Davis Road (Big Tree Remote End)</p>	<p>Line 904 leaves Big Tree Substation between 115kV Circuit Breakers 90452 and B1/90452 and proceeds to Davis Road Substation, where two 115/34.5kV transformers and one 115/12kV transformer are tapped off the line. The line continues as Line 927 to Stolle Road Substation where it terminates at circuit breaker 92752.</p> <p>The protection relays for these lines 904/927 will not be upgraded but the RFL6745 will be removed and the existing DTT (from Davis Road to Big Tree and Davis Road to Stolle Road) from the existing relays will be connected to new JUMX via newly install SEL-2506 relays.</p>
<p>REMOTE END SUBSTATION 4 - Stolle Road (Erie St Remote End)</p>	<p>Stolle Road (new connection of Line 926)</p> <p>Remote end relays at Stolle Road will be upgraded.</p> <p>The line currently has electro-mechanical relaying for system 'A' and 'B' line protection. To integrate with the line protection for Line 926 being installed at Erie st, the line protection at the Stolle Road Substation terminus will be changed to SEL-411L for System 'A', with piloting via Leased Line using JMUX. A GE-L90 will be used for System 'B', with no piloting. The breaker protection relay will not be upgraded.</p> <p>Communications with remote end will be achieved via JMUX and a dedicated fiber (communication scheme to be confirmed).</p>
<p>REMOTE END SUBSTATION 5 - Oakdale Substation (Fraser Remote End)</p>	<p>345 kV Line 32</p> <p>The existing System A SEL-421 relaying will be replaced with a new SEL-411L relay. This relay will communicate to the remote end (Fraser) via Power Line Carrier using RFL GARD 8000. The existing System 'B' protection scheme will be replaced with a new GE-L90 relay. This relay will communicate to the remote end (Fraser) via F. O utilizing a JMUX T1MX.</p> <p>115 kV Line 919</p> <p>The System A electromechanical relays and communication equipment will be replaced with an SEL-411L relay that will communicate with the remote line terminal at Fraser via power line carrier in a DCB scheme using a RFL GARD 8000 set. DTTA will also use a GARD 8000 set.</p> <p>The System B electromechanical relays will be replaced with an L90 relay that will communicate with the remote line terminal at Fraser via T1 channel using JMUX equipment that will be used for both POTT and DTTB.</p>
<p>[REDACTED]</p>	<p>ADA must be updated in order to integrate the new line bay</p>

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	signals.
REMOTE END SUBSTATION 6 - Coopers Corners Substation (Fraser Remote End)	The existing Line 33 line relays at Coopers Corners will be kept in order to be integrated with the new Line 33 protection being installed at Fraser. The existing System A SEL-421 will communicate to the remote end (Fraser) via Power Line Carrier using new RFL GARD 8000 set for DCUB, and a new GARD 8000 set for DTTA. The existing System B protection GE-D60 relay will communicate to the remote end (Fraser) via F. O utilizing a new JMUX T1MX for both POTT and DTTB.
REMOTE END SUBSTATION 7 - Jennison Substation (Fraser Remote End)	<p>115 kV Line 949</p> <p>The existing System A SEL-421 relay will be kept. This relay will communicate with the remote line terminal at Fraser via power line carrier using a new GARD 8000 set in a DCUB scheme, and a new GARD 8000 set for DTTA.</p> <p>The existing System B D60 relay will be replaced by an L90 relay that will communicate with the remote line terminal at Fraser via a new T1 line using JMUX equipment for both POTT and DTTB.</p> <p>SEL-2411 I/O interfaces will be installed to isolate the DC power supplies between the System A and System B protection systems via a fiber optic link.</p>

OWNER has provided a Bid Proposal Form which is a general outline of work tasks to be performed. It will be used as a basis for payment of the services.

The Bid Proposal Form includes **ANCHOR STATION** and **REMOTE END SUBSTATION** work which falls under the scope of the **PROJECT** and which may be located at any additional substation(s) or tower/pole(s) which are directly impacted by the **PROJECT**. The Bid Proposal Form is as detailed as possible, however; omission of items from the bid form does not relieve the **SUPPLIER** from performing tasks necessary to deliver a complete and functional system.

OWNER reserves the right to eliminate any item from the SOW during the **PROJECT** if it is no longer necessary to fulfill the requirements of the **PROJECT**.

OWNER reserves the right to require the **SUPPLIER** to provide a local presence, (i.e., no greater than 60 miles from the **PROJECT** site) during pre and post commissioning phases.

SUPPLIER shall provide individuals with the proper training and experience (substation access, electrical safety, NERC/CIP certification, etc.) to gain access to stations for evaluation, investigation, construction and commissioning phase services.

SUPPLIER shall be responsible for all necessary technical services required for a complete and functioning system in accordance with the **PROJECT** description outlined herein, the standards of the **OWNER**, agencies having jurisdiction, and industry standards.

SUPPLIER will be required to coordinate with other projects at the **ANCHOR SUBSTATION**, or locations adjoining the **PROJECT**, to ensure that all work is properly completed. This condition also applies to any location where **REMOTE END SUBSTATION** work is being performed.

SUPPLIER shall review the SP&C 1 - 7 engineering packages and provide feedback to help ensure the deliverables satisfy the requirements of the intended solution. **PROJECT** specific technical documentation will be provided to the successful **BIDDER** at or before the Kick-Off Meeting.

SUPPLIER to provide items required by the **OWNER** for this **PROJECT** according with the requirements defined in this Scope of Work and Project Description, and no requirement and/or specification change will be accepted without previous written approval and acceptance by the **OWNER**.

SUPPLIER may be required to perform an initial site visit, as defined in the Bid Proposal Form, to the Substation(s) and facilities covered in this Scope of Work before work can commence, as well as multiple site visits as needed during the design and construction phases. The **SUPPLIER** must include in their bid resources for such site visits throughout the course of the **PROJECT**. These site visits are essential to gain a full understanding of the work scope, requested deliverables, and to identify the challenges and concerns that will be faced during construction and commissioning.

6.2 Project Commercial Forms

The following documents must be used to detail the **SUPPLIER'S** commercial bid and may be found in Appendix A.

1. BES-2-06-J-0502 Rev 0 T&C RFP Big Tree, Erie St, Fraser Scope of Work
2. BES-2-06-J-0501 Rev 0 T&C RFP Big Tree, Erie St, Fraser Bid Deviation Form
3. BES-2-06-J-0503 Rev 0 T&C RFP Big Tree, Erie St, Fraser Bid Sheet
4. BES-2-06-J-0504 Rev 0 T&C RFP Big Tree, Erie St, Fraser Technical Clarifications Form

6.3 Project Technical Specification

A Master List of drawings provided for this project is available in Appendix B.

The following documents provide details on the planned design for this project and are included, if available, in Appendix C.

1. Project Online
2. Project Conceptual Drawings
3. Project Engineering Notes
4. Project System Protection Requirements (SPR) Documents
5. Project Outage Sequence Diagrams
6. Existing Substation Documents
7. Existing Operational Descriptions
8. Related Projects Documents
9. Remote end Documents

The following documents provide related scopes of work being performed under separate contract for this project and are included, if available, in Appendix C.

- b. Substation Engineering RFP

6.4 Technical Standards & Reference Documents

The **SUPPLIER** will follow all Technical Manuals & Standards provided by the **OWNER** as they apply to the **PROJECT**. A list of applicable P&C Technical Standards that are approved or under review is included in Appendix E. ("P&C Standards Master List"). An updated copy of this list will be provided at the kick off meeting. The number and version of all Technical Manuals and Specifications used for the **PROJECT** must be confirmed with the **OWNER** prior to commencement of work.

The following documents, forms, drawings and standards are attached and considered to be included in this SOW. Please note that documentation provided within the RFP package is intended to provide the **BIDDER** with a reliable scope of work, however; all info is subject to change, and updated versions may be provided during the bid process or at Project Kickoff. Any modifications that impact scope of work will be communicated to the **BIDDER** through the clarification process.

These documents are guidelines for the **SUPPLIER** to follow, however; best engineering judgment shall be used when considering this information during commissioning of the **PROJECT**. Technical Manuals and examples are written for "ideal" green field installations. The **SUPPLIER** is expected to consider all aspects of the specific installation and apply standards where applicable.

It is the **SUPPLIER'S** responsibility to ensure the system provides the protection, functionality and reliability as required by the Agreement including this document and any referenced documents herein.

6.4.1 General Requirements

The following documents are in Appendix D.

1. Avangrid Contractor Background Check Rule - Avangrid Networks
2. Avangrid Contractor's Safety Guide - ANHS-SOP-021
3. Avangrid SFORM-IUSA.010 Contract Safety Hazards Checklist
4. Avangrid SOP.E-CD.E.05.05 Design Change Management
5. Avangrid SPC - Procedures - TCA-RM Management Plan V2.1
6. Avangrid TM2.71.18 Document Control, Deliverables, and Drawing Standard
7. Avangrid SOP.E-CD.06.05 Site Contractor Quality Requirements

6.4.2 Avangrid Technical References & Standards

The following documents are in Appendix E.

1. Avangrid P&C Standards Master List 10152018
2. Avangrid Protection & Control File Naming Standards 01 02 2018

3. Avangrid SPC Baseline Create Network and Device Scan Procedure
4. Avangrid TEAM Install and Configuration_1B
5. Avangrid TM2.72.18 - HMI Draft Standard

Note: This document is in draft format as of January 2019, it shall be used as a reference for this work. Also note that TM2.72.18 was previously mislabeled as, and should not be confused with, "TM2.71.18 - Documentation, Vendor & Engineering Drawings".

6. Avangrid TM 2.71.P01 - General Relaying Philosophy for IUSA
7. Avangrid TM3.51.01 Remote Controlled Electric Facilities
8. Avangrid OT Network Philosophy Document_rev1

6.4.2.1 Example P&C Setting Packages including:

- TM2.71.PK 115kV AND ABOVE BAY CONTROL PROTECTION
- TM2.71.PT 115-34kV TRANSFORMER PROTECTION

*Note: These are example setting packages representative of **OWNER** standards and expectations. Examples are intended to illustrate the complexity of a typical setting package expected by the **OWNER**. Additional example TM's are available upon request.*

6.4.3 Team ME Digital Substation Database Forms

These documents are applicable on CMP projects only and may be found in Appendix E. Example documents provided include:

- DSD_15Minute_View_Templates
- DSD_1Hour_View_Templates
- DSD_Breaker_Op_View_Templates

6.4.4 Team ME Protection Systems Maintenance Documents

These documents are applicable on CMP projects only and may be found in Appendix E.

- Circuit Breaker DC Circuitry Trip Test Sample
- IUSA Battery and Chargers Manual Section 6 Jan 15, 2013
- LOR DC Circuitry Trip Test Sample

The following applies to BPS and BES sites only, should be included in the final commissioning report, and test sheets should be forwarded to **OWNERS ENGINEER** once completed for entry into the compliance test database. The **SUPPLIER** is expected to do the following as part of this SOW:

1. Fill out a DC circuitry trip test sheet for each trip coil of all BPS and BES circuit breakers. (see sample DC circuitry trip test)
2. Fill out a LOR DC circuitry test sheet for BPS and BES LOR's (not required for virtual LOR's) (see sample LOR DC circuitry test sheet)
3. Indicate BPS and BES relays in the Relay Database (RDB)
4. Complete all battery test reports including a battery load test and inspection per CMP Standardized guidelines (attached).

6.4.5 Team NY Protection Systems Maintenance Program (PSMP) Manual

These documents are applicable on RG&E and NYSEG projects only and may be found in Appendix E. The **SUPPLIER** is expected to follow the PSMP procedures and complete all associated forms as part of this SOW. Documents provided include:

- PSMP 03-18-2016
- PSMP Functional Forms 07-04-2015_Final

6.4.6 Avangrid Testing and Commissioning Philosophy Manual:

The Philosophy Manual illustrates **OWNERS** expectations for Testing & Commissioning activities. The manual and its associated appendixes are in Appendix F, including:

- BPM04L_01 Protection, Automation, and Integration Substation Test & Commission Philosophy Manual
 - Appendix A. T&C Dept - Substation T&C Flowchart
 - Appendix B. T&C Dept - Typical Project T&C Organization Chart
 - Appendix C. T&C Dept - Equipment Testing Plan Template (blank to be provided later)
 - Appendix D. T&C Dept - Testing & Commissioning Plan Template
 - Appendix D1. T&C Dept - SAP forms for P&C Team
 - Appendix D2. T&C Dept - Pre-Energization Assessment Checklist
 - Appendix D3. T&C Dept - Post-Energization Assessment Checklist
 - Appendix D4. T&C Dept – Existing Site Audit Checklist
 - Appendix E. T&C Dept - Testing & Commissioning Division of Responsibility Matrix
 - Appendix F. T&C Dept – Substation Protection Integration Site Punch-list Template

6.4.7 Avangrid Testing & Commissioning Procedures Manual (aka Section E1)

The T&C Procedures Manual details specific procedures to be followed by **SUPPLIER** during the performance of this SOW. The manual and its associated appendixes are in Appendix F.

6.5 Commissioning Requirements

6.5.1 Commissioning Tasks

In general, the **SUPPLIER** is responsible for the following tasks:

Pre-Mobilization:

[REDACTED]

[REDACTED]

- Review detailed engineering drawings to gain understanding of project scope and required services before Commissioning kickoff.
- Review existing protection schemes in the subject area as required to plan and manage work. Special areas of focus are anti-islanding schemes, generator inertia settings, SPS schemes, etc. (anything outside of normal). Prior to testing kickoff, the **TESTING & COMMISSIONING ENGINEER** shall be aware of how existing schemes work today before making modifications during outages, construction and/or testing.
- Review relay settings and protection schemes prior to commissioning work on associated equipment. Be familiar with the design intent of all protection and control circuits.
- Review **SP&C 3-7 ENGINEER** provided relay settings, logic diagrams (including Goose messaging diagrams), and operational descriptions for conformance to respective project requirements. Coordinate with **SP&C 3-7 ENGINEER** and **OWNER** as needed for modifications identified during the review process.
- Review **SP&C 3-7 ENGINEER** provided relay settings for all temporary builds and construction sequence steps including mobile settings.
- Review and validate relay testing protocols and procedures as well as commissioning plans.
- Develop detailed commissioning documentation needed to prepare for, execute, validate and record all commissioning results.
- Develop test plans for each respective relay type and protection element, including satellite (end to end) testing as required.
- Perform constructability review and ensure adequate protection and integration coverage during each step of the outage(s).
- 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.
- Coordinate with **OWNER** for outage applications, switching requirements and resource alignment to meet the **PROJECT** schedule.
- Interface with the appropriate **OWNER** SCADA / ECC Department or Staff to ensure appropriate resources are available to support SCADA testing. This coordination must be done well in advance of expected commissioning window.
- Interface with **OWNER'S** Substation Operations Dept. to schedule system protection turndowns and control scheme blocking to create safe and isolated work areas necessary for **COMMISSIONING TEAM** to perform their tasks.
- Interface with **OWNERS T&C ENGINEER** to schedule outages and coordinate de-energization and re-energization sequences.

Mobilization:

- Ensure "Issue for Construction" prints are on site.
- Ensure "Issue for Construction" relay settings, relay setting basis documents and relay logic drawings are on site.

on site (relay manuals, NETA procedures, IEEE/ANSI, vendor, etc.)

- Ensure that the Project Safety Plan has been prepared, approved by **OWNER** and is available on-site.
- Conduct kickoff meeting with **OWNER**.
- Coordinate installation of IFC relay and integration settings by the **SP&C 3-7 ENGINEER**.
- Ensure **COMMISSIONING TEAM** personnel are scheduled for the duration of the **PROJECT**.
- Perform an initial safety risk assessment of the site prior to start of commissioning.

Commissioning:

- Manage and coordinate on-site resources including **COMMISSIONING TEAM**, construction contractors and others.
- Direct and monitor all commissioning activities to ensure only safe and appropriate methods are employed.
- Ensure all applicable tests are performed on P&C, A&I and N&S systems. Oversee and review all commissioning test results.
- Ensure all test equipment used by **COMMISSIONING TEAM** is approved by **OWNER**, is calibrated and assigned personnel are capable of its proper use.
- Ensure all relay testers are using **OWNER** approved version of DOBLE Protection Software and approved relay test sets.
- Ensure all relay testers are using only approved versions of software per **OWNER** Technical Manuals.
- Ensure only approved versions of device firmware is installed per **OWNER** Technical Manuals.
- Coordinate firmware changes for relays / IEDs / network switches as required with **OWNER**
- Perform full functional and phasing tests to ensure the proper operation of all systems.
- Validate that all tests provide enough overlap and have successful results.
- Fill out test certification sheets as they apply to the work.
- Provide progress reports, projections, and schedule updates to **OWNER**.
- Track, identify, test, and restore any temporary configurations or wiring 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.
- Calculate phasor magnitudes and angles as it pertains to testing and validation of test results and in-service checks.
- Review and interpret manufacturer's 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** to determine corrective course of action.

_____ the Outage Sequence Plan during construction and

- Participate and help support close out of all construction punch list items and energization audit checklist items.
- Follow **OWNER** procedures for retiring equipment or devices being removed during the **PROJECT**.

Pre-Energization:

- Assist **OWNER** with training its own resources on the proper operation of the equipment and systems or modifications within the **PROJECT** scope.
- Make certain all "as-left" relay files and configuration files are received by **OWNER**
- Make certain all test results are acceptable and permanently recorded prior to energization.
- Make certain all test results are received and accepted by **OWNER**
- Consolidate all test results, forms, key sheets and pertinent documentation into a 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**, Including verification of nameplate data, serial Numbers, etc. of all equipment and their correct positions on the drawings
- Provide all as-left native electronic files to be reviewed by the **SP&C 3-7 ENGINEER** and become the record files delivered to **OWNER**.
- Support **OWNERS T&C ENGINEER** to complete energization audit checklist items.

6.5.2 Commissioning Team Roles & Responsibilities

Typical **SUPPLIER** responsibilities include but are not limited to those outlined below. **SUPPLIER** shall ensure that all tasks necessary to provide a fully functional system, while conducting T&C work in a safe manner, are assigned to qualified staff.

1. On-Site Equipment and/or Relay Testing Engineer(s) and Technician(s)
 - Keep prints organized and controlled.
 - Be familiar with the **PROJECT** drawings and commissioning procedures at all times.
 - Perform a daily pre-job safety briefing with everyone involved with that day's work.
 - Plan commissioning activities that will be taking place each day in a manner that is safe for both personnel and equipment, discuss this plan with all involved before work commences.
 - Identify and complete test certification sheets as required.
 - Maintain all commissioning documentation in binders on site.
 - Keep working drawings updated as changes are made.
 - Scan all red/green marked up documents and return to **OWNER** with final commissioning package.
 - Assist with SCADA testing as necessary to prove control & status logic is functional.

████████████████████ **OWNER** approved firmware versions

- Upload relay settings and capture “as-left” setting files
 - Use Avangrid Protection System Maintenance Program (PSMP) Functional Forms to document verification of protection system functionality
2. On-site Integration Testing Engineer(s) and Technician(s)
- Perform an initial risk assessment of the site prior to start of commissioning.
 - Ensure that the substation OT-LAN is functioning properly and all IEDs are communicating on the network, using IP addresses assigned by Avangrid.
 - Conduct local and remote testing of the RTU to all applicable IEDS and SCU.
 - Ensure HMI is functionally working and visually and acceptable to end user.
 - Complete functional Supervisory/Control tests if equipment through the Automation platform.
 - Ensure that all station alarms are reported in the station SER via the SCU.
 - Calibrate the HMI ELO touchscreen.
 - Direct all commissioning activities.
 - Oversee and review all testing and test results.
 - Perform overall SCADA testing of status, analog, and control points from substation to ECC.
 - Provide a final commissioning report to **OWNERS PROJECT MANAGER** via ProjectWise
 - Perform final security changes to RTU, SCU, and switches at end of **PROJECT**.
 - Update integration drawings as necessary
 - Verify network switches are using Avangrid approved firmware versions
 - Upload network switch settings Perform failover testing for the redundant Ethernet connections including the main ring
 - Perform final network scan, provide results to RG&E for review and acceptance
 - Ensure all RTU analog dead bands and polling scheme is set appropriately per AVANGRID TM

6.5.3 Approved Software

The **SUPPLIER** must use the following engineering and design software to perform all work listed herein: Microsoft Word, Microsoft Excel, Microsoft Project, AutoCAD, Aspen Oneliner, WinIGS, SEL-AcSElerator, SEL AcSElerator RTAC, SEL AcSElerator Architect, SEL-TEAM, GE Enervista UR Setup, GE Cimplicity HMI, Catapult DNP Driver, GE Proficy Driver Server, Nessus Professional, Nmap, Siemens – DigSI, SMP Tool, PLS-CADD, CYMCAP, ZIV and others

No other software will be acceptable unless specifically approved by the **OWNER**. The **SUPPLIER** must use the appropriate, **OWNER** approved version of each software package. Development of settings in releases different than the **OWNER** approved version will be rejected. A list of approved versions will be provided at the outset of each project.

6.5.4 Approved Firmware

The **SUPPLIER** must use the appropriate, **OWNER** approved version of firmware for each device. [REDACTED] using releases different than the **OWNER** approved version will

be rejected. Approved firmware is listed in the following **OWNER** documents which will be updated at the Kick-off Meeting:

- P-ST-G01 - IED STANDARD LIST
- P-ST-G02 - IED NON-STANDARD LIST

6.6 Documentation Standards

SUPPLIER shall follow **OWNER'S** electronic drawing and document review process as detailed in TM2.71.18. **SUPPLIER** is to submit all deliverables through ProjectWise (uploading drawings, documents, and test reports) updating the list of documents provided, receiving comments and reviews, etc. (as necessary) and shall keep this system updated until completion of the work.

SUPPLIER shall use ProjectWise software to exchange all documents and drawings required for the **PROJECT**. The **SUPPLIER** must request access to this software and the specific project folders upon receipt of notice to proceed. The **OWNER** will create these folders and assign specific permissions on each (read, write, etc.). The native (.docx, .xlsx, .dwg) files must be provided in ProjectWise.

Proper naming of all documents is required and should follow all guidelines set forth by the **OWNER** in SOP.E-CD.09.07 and the P&C Naming Convention Standard. All submitted deliverables shall be tracked. Transmittal letters shall accompany all drawing, settings, report and document submittals and transactions.

In addition to all requirements specified in TM 2.71.18, the **SUPPLIER** shall submit the native files as well as a full-sized PDF files for all drawings, specifications, calculations, studies, and documents developed during the **PROJECT** with each package submission.

Packages submitted that are found to be of poor quality or do not adhere to the appropriate **OWNER** commissioning practices will be returned to the **SUPPLIER** for correction. The cost of these corrections will be absorbed by the **SUPPLIER**.

6.7 Final Commissioning Report

Once work is complete the **SUPPLIER** will submit a Final Commissioning Report that must include all red lined design documentation, as-left setting files, point maps, logic diagrams, and other relevant documents.

6.8 Project Deliverables

SUPPLIER is responsible for commissioning of all Protection & Control Systems, Automation & Integration Systems, Network & Communications Systems, and Cybersecurity deliverables and documentation for the **PROJECT**. The **SUPPLIER** shall verify all items necessary to place the station into service including, but not limited to, the following:

- § System Protection Requirements (SPR)
- § Operating Descriptions & Instructions
- § Relay Configuration Native Files
- § Relay Logic Diagrams

-
- § Relay Setting Basis Documentation
 - § Programmable Electronic Device (PED) Configuration Native Files
 - § IED Data Maps
 - § SCADA Data Maps
 - § RTU Configuration Native Configuration Files
 - § HMI & Annunciator Native Configuration Files
 - § SCU Security & Hardening Documentation and Configuration
 - § Disturbance Monitoring Equipment (DME) native configuration files and database updates.
 - § Digital Substation Database (DSD) native configuration files and database updates.
 - § Station Ethernet Switch Settings Basis
 - § Station Ethernet Switch Configurations
 - § Station Firewall Settings Basis
 - § Station Firewall Configurations
 - § Training Plans
 - § Temporary relay settings package including all relay settings necessary to provide control and protection of all substation elements during each phase or sequence of the **PROJECT** as outlined in the conceptual engineering package.

A more detailed description of the planned protection & integration system can be found in attachments to this RFP including System Protection Requirements (SPR), Relay & Power One Line Diagrams, Integration Diagrams, and Communication Diagrams. In general, commissioning of the following items is included in the **SUPPLIER'S SOW**.

6.8.1 Programmable Electronic Device (PED)

The **SUPPLIER** is responsible for commissioning of the settings for all devices including but not limited to protective relays, alarm and monitoring equipment, metering, etc. located in the control house, circuit breakers, motor operated disconnects, line switches, switchboards, switchgear, transformers, battery chargers or any other location onsite or at the remote end.

6.8.2 Remote Terminal Unit (RTU)

The **SUPPLIER** is responsible for commissioning of the Station RTU(s) or Data Concentrator per the **OWNER'S** technical standards.

6.8.3 Human Machine Interface (HMI)

Commissioning of the HMI configuration. HMI configuration is to be commissioned in compliance with **OWNER'S** technical standards.

6.8.4 Digital Station Database (DSD)

The **SUPPLIER** will commission all items in the station SCU & RTU as well as corporate database necessary to validate proper operation of the DSD. Examples of the forms used to configure and commission the DSD platform are included in Appendix E.

Note: This requirement is for Central Maine Power substations only.

6.8.5 Operational Technology Network (OT)

The **SUPPLIER** is responsible for commissioning the OT Network including all routing, switching and security settings.

6.8.6 Substation Control Unit (SCU)

The **SUPPLIER** will commission all functions of the station SCU. These include, but are not limited to:

- § Human Machine Interface
- § Digital Substation Database Connections (CMP only)
- § What's Up Gold Network Management Server (NMS)
- § AcSELerator SEL-TEAM
- § AcSELerator SEL-TEAM Sync to Corporate TEAM server
- § Crossbow password synchronization to local TEAM database and to PEDs.
- § Network Time Protocol (NTP)

6.8.7 Disturbance Monitoring Equipment (DME)

The **SUPPLIER** will commission all functions of the station DME including:

- § Fault & Event Reporting
- § Sequence of Event Recording

Note: **SUPPLIER** is responsible for commissioning all aspects of the DME system in the Station Control Unit, Remote Terminal Unit and Programmable Electronic Devices.

7.0 Tasks by Others

For clarity a brief description of tasks to be performed by others and not included in this Scope of Work is provided below.

7.1 SP&C 1-2 Physical Design

It is the responsibility of the **SP&C 1-2 ENGINEER** to provide a complete substation design.

7.2 SP&C 3-7 Settings Design

It is the responsibility of the **SP&C 3-7 ENGINEER** to provide a completely programmed and communicating substation control platform to the **SUPPLIER** for final commissioning. For commissioning to start, the system will be setup by the **SP&C 3-7 ENGINEER** to allow **SUPPLIER** personnel to start testing without requiring knowledge of how to configure the system. Before commissioning starts, the system should be operational to a point where no interaction after power-up is required to run the system.

7.3 Station Construction & Equipment Testing

It is the responsibility of the **ABOVE GROUND CONTRACTOR** to provide a complete substation with all electrical, mechanical, civil, structural and other supplied systems installed and tested. Once the **ABOVE GROUND CONTRACTOR** has completed testing of all wiring, terminations, equipment and functions of these systems the site will be turned over to the **SUPPLIER** for commissioning.

ABOVE GROUND CONTRACTOR testing activities include Equipment, Installation and Wiring Testing tasks as specified in the project's **ABOVE GROUND CONTRACTOR RFP** and in the attached document "T&C Dept - Testing & Commissioning Division of Responsibility Matrix".

7.4 Cyber Security Validation

Provisions shall be made in the **PROJECT** schedule for, and the **COMMISSIONING ENGINEER** shall support, a one-week period after all commissioning is done and before energization, during which Cyber Security Validation is to be conducted by the **COMMISSIONING ENGINEER**.

7.4.1 Network Security Scan

The **SP&C 3-7 ENGINEER** is responsible for verification of station network security settings by performing a network scan onsite after commissioning but prior to energization. The **SP&C 3-7 ENGINEER** must perform a NMAP (or other **OWNER** approved software) scan of all networked devices and provide a Network Security Basis Document detailing all IEDs and any discovered vulnerabilities. Additionally, the **SP&C 3-7 ENGINEER** must confirm that all devices found during the scan process are listed on the **OWNER** provided station specific Bulk Electric System Cyber Assets (BESCA) list. The **SP&C 3-7 ENGINEER** will verify that the list is correct by performing a comparison utilizing the NMAP scan. The **SP&C 3-7 ENGINEER** must deliver a detailed report in compliance with **OWNER'S** requirements.

7.4.2 Cyber Vulnerability Scanning

The **SP&C 3-7 ENGINEER** will perform vulnerability scanning of new versions of devices used at a station with Nessus (or other **OWNER** approved) software. For the purpose of the CVA "New Devices" are defined as models or firmware that have not previously been approved by **OWNER**.

7.4.3 Cyber Vulnerability Assessment (CVA)

[REDACTED] responsible for completion of a Cyber Vulnerability Assessment.

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 “Master Agreement”) between AVANGRID Service Company and [REDACTED] (“Supplier”), the entity named (hereinafter, the “Company”) in the given Purchase Order (the “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 Master 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 following documentation:

- (i) The Purchase Order (exclusive of its pre-printed terms and conditions on the back thereof);
- (ii) These Terms and Conditions;
- (iii) The Scope of Services document attached to the Master Agreement as Schedule B, as it may be amended, modified or supplemented for the Purchase Order; and
- (iv) The Master Agreement, including all Schedules other than those described in subsections (i), (ii), and (iii) 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), and (iv), above.

All work shall be invoiced in accordance with the Pricing Schedule included in Schedule D, attached hereto and made a part hereof (unless otherwise agreed to in writing by the Company).

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 Agreement Price and detailed schedule for completion of the work are based on Supplier’s known knowledge and judgment of the reasonably ascertainable, with reasonable due diligence, conditions and hazards involved, and not upon a representation of the

Company. The Company 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 Company.

ARTICLE 2 - CONTRACT PRICE

The total 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 Master 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 Company.

(i) Unless authorized by a written Change Order signed by both parties, Company 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) Company 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

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

(i) The Supplier will be reimbursed the automobile mileage at the then current IRS allowed rate. For mileage incurred in actual and necessary travel by private automobile for mileage to the Work Location, plus the actual cost of all parking, highway, and/or bridge charges paid enroute.

(ii) The Supplier will be paid or reimbursed for travel by commercial airlines in coach class and at discounted fares, if possible, except when such coach and/ or discounted airline accommodations are not reasonably available to meet necessary work requirements or would

- a) require circuitous routing;
- b) require travel during unreasonable hours;
- c) greatly increase the duration of the flight;

- d) result in additional costs which would offset the transportation savings; or
- e) offer accommodations which are not reasonably adequate for the medical needs of the traveler.

Company will pay or reimburse Supplier for such reasonable additional airline travel expenses as are necessary to avoid or overcome the problems cited in the foregoing sentence.

(iii) Company will pay or reimburse Supplier for the actual cost of necessary local transportation (cab, bus, streetcar, rental car, etc.). The Supplier agrees to furnish documentation, if requested, for any such charges in excess of \$25.00 with its invoices therefore under this Agreement.

(iv) Company will pay or reimburse Supplier for the actual cost of reasonable meals and hotel accommodations unless a predetermined per diem has been agreed to and is listed in Schedule D to the Master Agreement.

(v) Company 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.

ARTICLE 4 - PAYMENTS

A. Ninety percent (90%) of payment of any undisputed portions of an invoice will be made on the 60th day after the receipt by Company of a properly completed invoice, supported by original receipts, and detailing the travel expenses. As additional security for the faithful performance of the Supplier's obligations set forth in this Agreement, Owner shall deduct and retain from all payments ten percent (10%) of the undisputed invoice amount ("Retention").

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 Company.

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 Company review upon written request by Company. Supplier shall preserve all pertinent records supporting payment for Services hereunder for a period of two (2) years after final payment for the Services.

C. Upon Owner's Commercial Operation of each of the Big Tree, Erie Street and Fraser Substation Assets, the Retention held for that specific Substation Asset by Owner shall be returned to the Supplier.

ARTICLE 5 – TAXES

The 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. Company 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, and Supplier will not be required to perform any changes in the Scope of Services, except as otherwise specified in this Agreement unless made by Company and sustained by written Supplement. 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 Company. A Supplement is a written Purchase Order Supplement, signed by the Company and issued after the execution of this Agreement. A Supplement is developed, negotiated and executed in accordance with the provisions set for in Schedule J that authorizes an addition, deletion, or revision in the Services or an adjustment in the Contract Price or the Schedule.

No changes in the Agreement will be made without an Agreement Supplement. 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 shall be submitted, negotiated and executed in accordance with the provisions set forth in Schedule J.
- B. Any dispute or matter in question between the Parties arising out of or related to this Agreement or the breach termination or validity thereof (a “Dispute”) shall be resolved pursuant to the procedures set forth in Schedule J of this Agreement.

ARTICLE 8 – AUDIT

Supplier shall check all material 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 Company 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. This provision shall remain in effect for two (2) years following final payment under this Agreement.

ARTICLE 9 - RIGHTS, PRIVILEGES, REMEDIES

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 Company 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 Company or has defaulted under this Agreement or under any other agreements with the Company, or Supplier has failed to pay any amount owed to the Company whether pursuant to an agreement, a statutory or regulatory fine, the imposition of statutory or regulatory damages, or through the prosecution of the work in this Agreement including, but not limited to Liquidated Damages or otherwise (collectively, the “Obligations”), the Company may, at its option, setoff and/or net any or all such Obligations against any amounts owed by the Company to the Supplier. In the event that the amount owed by the Company shall become less than the amount of Obligations of Supplier, the Supplier shall pay the difference upon demand by Customer.

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, this Agreement shall take precedence and govern.

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 Company, where Supplier’s personnel work out of Company’s offices under Company’s direction, the provisions of this Agreement shall not be construed as authorizing or reserving to Company 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.

Company shall carry no worker's compensation insurance, health insurance or accident insurance to cover the Supplier, or any of its agents, employees or subcontractors. Company 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 shall create any contractual relationship between Company 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. The Company shall promptly notify the Supplier in writing if, after due investigation, Company has reasonable objection to any subcontractor on such list and does not accept it. Failure of the Company to make objection promptly shall constitute acceptance of such subcontractor. Copies of all subcontracts shall be furnished to Company. Supplier's subcontractor may not be changed except at the request of or with the written approval of the Company.

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

Company 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 Company's Safety Rules and Regulations for Supplier is attached hereto and made a part hereof, as Schedule L - AVANGRID Contractor Safety Guide and shall apply to all work performed under this Agreement.

ARTICLE 17 - ACCIDENT 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 and progress of the work.

ARTICLE 18 – INSURANCE

Supplier shall maintain insurance in accordance with the requirements as set forth in Schedule G.

ARTICLE 19 – INDEMNIFICATION

Supplier will indemnify, to the fullest extent permitted by law, defend at its expense and hold harmless the Company and its Affiliates, directors, officers, employees, and agents (the "Indemnitee") 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; provided that the foregoing shall not be applicable to any suit, claim, or proceeding based on infringement or violation of a patent or copyright to the extent such infringement or violation is solely and directly caused by Customer's gross negligence or willful misconduct and resulting from either (i) a particular process or product of a particular manufacturer specified by Company or (ii) a modification to the Services by Company after acceptance of the Services; (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 Indemnitee 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 Indemnitee 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 Indemnitee, including, without limitation, vacation, deferred compensation, medical, pension, 401(k) or any other benefit available to the Indemnitee's employees; and (iv) the Indemnitee 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 Indemnitee 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.

Notwithstanding anything is this Article 19 to the contrary, the Supplier shall not be required to indemnify the Indemnitees under this Article 19 for any and all claims, demands, suits, losses, costs, fees, damages or expenses to the extent resulting from the negligence or willful misconduct of the Customer or its Affiliates.

ARTICLE 20 – WARRANTY

The Supplier warrants that the Services performed under this Agreement shall be performed in accordance with any 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 adds or other fee to Company, 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 Company pursuant to the Indemnification clause contained herein or any other remedy which may be available to Company under applicable law.

ARTICLE 21 - APPROVAL/ACCEPTANCE

All work under this Agreement shall be subject to the Company's inspection and approval before payment.

ARTICLE 22 - FORCE MAJEURE

Supplier shall not be charged with any liability for failure to perform when such failure is due to any cause beyond the control and without the fault or negligence of Supplier, except that adverse weather shall not be deemed a cause beyond the control of Supplier for purposes of this Agreement unless the adverse weather is unusually severe, provided that the Supplier shall have used its best efforts to remedy the delaying cause or condition and recommence performance, and has furnished the Company with prompt written notice when it appears that such cause will result in non-performance or shall threaten to impair Company's ability to operate. Company 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, Company shall be excused for failure of performance herein due to any cause beyond its control and without its fault or negligence.

Company and Supplier expressly agree, notwithstanding any provision in this Agreement to the contrary, that: (i) a COVID-19 pandemic (the "Pandemic") exists worldwide; (ii) Subcontractor represents to Customer that Supplier has addressed the existence of the Pandemic, and its effects as of the execution date of this Agreement, including, without limitation, effects upon pricing, schedule, quantities or specifications, if any, shall not be cause for Subcontractor 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; (iii) the Parties agree that 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 the Pandemic and its effects as of the execution date of the Agreement; (iv) to the best of Supplier's knowledge as of the date of this Agreement, the Pandemic shall not render Supplier unable to fulfill any of its obligations under the Agreement, and (v) Supplier represents to Customer as of the execution date of the Agreement that Supplier shall not assert any claim, action or cause of action against Customer in connection with the Pandemic,

including any claim under this Article 22 or for frustration of purpose, change in circumstances, economic balance or impossibility. This provision shall survive the completion or earlier termination of this Agreement.

Without limiting any other requirement in this Agreement or under applicable laws, Supplier is employing and will employ in performing its obligations under this Agreement the current best practices in response to the Pandemic, including, without limitation, regular workforce training, social distancing and use of recommended PPE.

If after the execution date of the Agreement, a new, unforeseen event in connection with the Pandemic prevents or inhibits Supplier's performance under this Agreement (the "New Event"), Supplier will use its best efforts to perform the Work and provide the required labor, workforce and equipment as necessary to perform the Work as well as supply all required materials under this Agreement to meet the Supplier's obligations and scheduled milestone dates.

The Parties hereby mutually agree to use commercially reasonable efforts work together in good faith to address any and all future, unforeseen impacts from the Pandemic in accordance with the terms of the Agreement. For purposes of clarity, notwithstanding anything set forth in this Article 22 of the Agreement, Customer and/or Company(ies) shall only be required to pay Supplier for the Work provided by Supplier in accordance with this Agreement including pursuant to any approved change orders accepted by Customer and/or Company(ies) in writing.

This Article 22 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 Company 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 Company, 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 Company, 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 Company, the Company 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 this Agreement. The Supplier shall begin the work on the date of commencement set forth in the Agreement. 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 Agreement.

The provisions set forth in Schedule J shall apply for all matters relating to time, including, but not limited to delays in the progress of the work.

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 Company 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 – SUPPLIER’S 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. Company may terminate this Agreement if Supplier fails to provide a qualified work force within twenty-four (24) hours of Company’s notification to Supplier that a qualified work force has not been supplied.

ARTICLE 27 - TERMINATION

Company 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 Company except as stated in this Article. In full discharge of any obligations to Supplier in respect of this Agreement and such termination, Company shall pay Supplier, in accordance with the payment terms of the Agreement, only for Services 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 Company 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, Company 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 Company 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 Company. 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 (A) fails or refuses to comply with any applicable laws or regulatory or permitting requirements, and (B) either (II) 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 (II) Company(ies) or the Customer faces any civil or criminal action or penalty as a result of such non-compliance by Supplier; and (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 Company shall have all rights and remedies provided by law or equity and under this Agreement. In addition, in such event, Company may retain from any money otherwise due for Services rendered prior to termination an amount which Company 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 Company'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 Company.

ARTICLE 28 – TERM AND SURVIVAL

This Agreement shall remain in effect unless otherwise terminated as provided herein, or upon receipt by Company of Supplier's Release and Certificate Form and Final Payment is made as set forth in Article 30 below. Notwithstanding the foregoing, Articles 4, 7, 9, 10, 13, 14, 17, 18, 19, 22, 31, 37, 38, 39, 47 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, but in no event will a claim commence beyond any applicable statute of limitations.

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 Company, shall promptly remove any part or all of Supplier's equipment and supplies from the property of the Company, failing which the Company shall have the right to remove such equipment and supplies at the expense of the Supplier.

ARTICLE 30 - FINAL PAYMENT

Final payment under this Agreement shall not be made until successful completion and acceptance of the work by the Company and when requested by Company, 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 Company. 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 Company 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 (x) be delivered to Company upon completion of the work or termination or cancellation of this Agreement, (y) be deemed to have been prepared by Supplier for Company on a work-made-for-hire basis, and (z) shall be the property of Company and may be used by Company 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 Company 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 Company, information and other data developed or acquired by or furnished the Supplier in the performance of this Agreement shall be used only in connection with the work under this Agreement.

ARTICLE 35 – STANDARD OF CARE AND KEY PERSONNEL

Standard of Care. Supplier shall perform the Services in a manner consistent with that degree of skill and care ordinarily exercised by members of the same profession performing the same or similar work under the same or similar circumstances where the Project is located (“best management practices”). The parties acknowledge that neither Customer’s review, approval, acceptance, nor payment for the Services is intended to, nor shall it, constitute a waiver, release, or discharge of Supplier’s responsibility for the proper performance of the Services or liability for defects in same, or an assumption by Customer of such responsibility or liability.

Qualifications and Licenses. All Supplier personnel shall be duly qualified and competent to perform the work undertaken, and Supplier represents that all personnel performing Services or conducting activities in furtherance of this Agreement shall be properly qualified and competent, and that personnel performing services or conducting activities for which a license or certification is required under local, state, or federal regulations shall be duly licensed and/or certified. All licenses and certifications shall be current at the time the work is performed.

Supplier shall execute the certifications set forth in Schedule K, Certifications, and provide the executed originals to Customer. All subcontractors, if applicable shall execute and return same to Supplier upon execution.

Personnel assigned to perform work hereunder who are designated as “Key” Personnel in 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 Company, until their assignments are completed. The Company shall have the right to reject replacements for personnel.

ARTICLE 36 - PUBLIC RELEASE OF INFORMATION

Date, 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 Company 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 Company which approval may be withheld without reason or explanation to Supplier.

ARTICLE 37 - LIMITATION OF LIABILITY

To the fullest extent permitted by law, Company and Supplier shall not be liable for any special, indirect or consequential damages resulting in any way from the performance of the Services hereunder; provided, however, nothing set forth herein shall in any way limit Supplier’s liability for matters arising out of Supplier’s indemnification obligations under Article 37 herein or Supplier’s fraud, gross negligence, or willful misconduct.

ARTICLE 38 – CONFIDENTIALITY

Supplier, its employees and agents, shall treat any information, (including any technical information, experience or data) regarding Company or Company’s plans, programs, plants, processes, costs, equipment, operations, of Company (or 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 Company’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 Company) as a matter of legal right and without restriction on disclosure, (iii) was in Supplier's possession prior to disclosure by Company and was not acquired by Supplier or Supplier’s Affiliates, its employees and agents directly or indirectly from Company 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 Company will be similarly restricted, including clauses (i) through (iv) in the paragraph above. Company will not disclose such information to others or publish it in any form at any time; provided, however, that notwithstanding the foregoing, Company may disclose any such information to its Affiliates, employees, and consultants, to any regulatory agencies or instrumentality's 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 Company’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 Company.

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

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

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 LAW

The Supplier will comply with all applicable federal, state and local laws, rules, regulations, requirements, guidance, executive orders, ordinances and other governmental orders of any governmental entity, board or agency having jurisdiction over the Services provided by Supplier.

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.

ARTICLE 42 - PERFORMANCE MONITORING

Company 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 Company's review. The Company's Project Manager will evaluate the Supplier's performance upon the conclusion of every project by completing the specified report. The Company 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 Company in the form of price reductions 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 Company. Supplier has specifically identified target cost reductions of 2% beyond the prices shown in Schedule D for the Initial Term, and agrees to work diligently with Company 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 Company, as soon as they become available.”

ARTICLE 44 - NO PENDING DISPUTES

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 Company and/or and of Company’s affiliates.

ARTICLE 45 – BACKGROUND CHECK REQUIREMENTS AND DATA SECURITY RIDER

Supplier hereby agrees to comply with the terms and conditions of the Customer’s (i) Background Check Requirements attached hereto as Exhibit H and made an integral part hereof, and (ii) Data Security Rider attached hereto as Exhibit I and made an integral part hereof.

Supplier shall be familiar with and shall comply with the requirements of the NERC CIP- 004 for projects or services at or relating to critical cyber assets and critical company operating facilities (“Critical Infrastructure”). The specific CIP Standard follows:

CIP-004 Excerpt:

R3. Personnel Risk Assessment --The Supplier shall have a documented personnel risk assessment program, in accordance with federal, state, provincial, and local laws, and subject to existing collective bargaining unit agreements, for personnel having authorized cyber or authorized unescorted physical access. A personnel risk assessment shall be conducted pursuant to that program prior to such personnel being granted such access except in specified circumstances such as an emergency. The personnel risk assessment program shall at a minimum include:

R3.1. The Supplier shall ensure that each assessment conducted include, at least, identity verification (e.g., Social Security Number verification in the U.S.) and seven- year criminal check. The Supplier may conduct more detailed reviews, as permitted by law and subject to existing collective bargaining unit agreements, depending upon the criticality of the position.

R3.2. The Supplier shall update each personnel risk assessment at least every seven years after the initial personnel risk assessment or for cause.

R3.3. The Supplier shall document the results of personnel risk assessments of its personnel having authorized cyber or authorized unescorted physical access to Critical Cyber Assets, and that personnel risk assessments of Supplier and service vendor personnel with such access are conducted pursuant to Standard CIP-004.

ARTICLE 46 - EMPLOYEE SOLICITATION

Supplier understands and acknowledges that Customer has expended and continues 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 Customer. To the maximum extent permitted under applicable laws, the Supplier agrees and covenants not to directly or indirectly solicit, hire, or recruit, or attempt to solicit, hire, or recruit-any employee who has been employed by the Customer or its Affiliates during the term of this Agreement, with whom Supplier 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 Customer 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 Customer, and Supplier shall not induce or attempt to induce, directly or through an agent or third party, any such Covered Employee to leave the employ of the Customer or its Affiliates. As used herein, the term "Affiliate" shall mean any person or entity controlling, controlled by, or under common control with the Customer through majority stock or other ownership interest, direct or indirect. Notwithstanding the foregoing, nothing in this clause shall either (i) limit Supplier from employing any person who contacts Supplier on his or her own initiative and without any solicitation by Supplier 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 Service Company website (www.avangrid.com).

ARTICLE 48 – COMPLIANCE WITH LAWS GENERALLY

Supplier will comply with all laws, rules and regulations of any governmental entity, board or agency having jurisdiction over the Services, including, without limitation, State, Federal or local laws, rules and regulations and any applicable Executive Orders (State or Federal) in the performance of the Services.

ARTICLE 49 – 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 50 – 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 51 - GRATUITIES PROHIBITED

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

ARTICLE 52 - SUPPLIER SAFETY

Prior to the Supplier’s commencement of the **Project**, Supplier shall submit for Customer’s review and approval the Supplier’s Safety Plan. At a minimum, the Supplier’s Safety Plan shall satisfy: (i) the safety requirements as specified in **Schedule L** and must be applied to all low-risk, medium-risk and high-risk activities while performing the Work for Customer; (ii) Customer’s Supplemental Contractor Safety and COVID-19 Requirements as specified in **Schedule L-1**; and (iii) all applicable COVID-19 pandemic procedures, requirements, guidelines and protocols in connection with the Project and/or the Work, including, without limitation, those necessary for compliance with all Federal, State (New York State as applicable) and local Governing Laws and directives.

Supplier must make their final submissions of the Supplier's Safety Plan within three (3) calendar days after receipt of Customer's comments to the plans.

SCHEDULE D

Compensation

The Services Pay Compatible Unit (“PayCU” or “PayID”) pricing, as defined in the Bid Forms in Schedule D-1, includes all labor, materials, plant, tools, equipment, tackle, supplies, delivery, transportation, construction, civil works, erection, installation, field verification, project management, planning, supervision, testing, insurance, Workman’s Compensation Board assessments, overhead, taxes, profit and any other means necessary for the completion, subject to the Owner’s approval, of the PayCU in accordance with the Agreement.

Customer will compensate Supplier for performance of the Services as set forth in Schedule B, the lump sum, fixed price amount of [REDACTED] as specified in the Schedule of Values herein. The lump sum fixed price amount includes all fees described in this Agreement, and all other costs, reimbursable items, overhead and profit in connection with the Services. If Customer determines that certain PayCUs may not be required, Customer may amend the Services and remove such PayCUs and their associated costs from the Agreement in accordance with the Changes provisions in Schedule J.

The Fully-Burdened Hourly Labor Rate, as specified in Schedule D-2, shall be deemed to include all overhead and profit in connection with the T&M identified Services PayCUs. All T&M identified Services provided by Supplier must be approved in advance by Customer.

Pricing Terms

1. Prices shall remain firm for orders placed during the term of this Agreement.
2. Prices quoted are for all Services associated with materials and equipment installed and tested at the Site.
3. Payments, less Retention shall be made Net 60 days from date of invoice as set forth in Article 4 of Schedule C in this Agreement.

Schedule of Values

Payments shall be made by Owner on completed PayCUs, excluding T&M identified Services PayCUs, that have been submitted by Contractor, received by Owner and approved by Owner.

The PayCUs for this Agreement are as set forth in Schedule D-1.

SCHEDULE D-1

PayCU Pricing

Fraser T&C Lump Sum Bid Form

Instructions: Bidders to complete all orange cells below with appropriate data

Bidder's Company Name:	
Bidder's Contact Information:	
Date:	
Rev:	

Item	Description	Scope Clarification
1	Develop Commissioning plan for P&C and A&I systems	
2	Provide input to development/modification of outage sequence plan	
3	<p>T&C of P&C IEDs: ULTIMATE SCHEME Fraser Substation: New relays: (28) SEL-451, (3) SEL-421, (2) GE D60, (10) SEL-411L, (11) GE L90, (7) SEL-487B, (5) GE-B30, (2) SEL-487E, (2) GE T60, (2) SEL-487V, (2) GE-C70, (8) SEL-2411 (CH alarm), (115) SEL-2411 (MOD/Breaker), (4) SEL-2411 (Transformer), (2) SEL-2411 (AC system), (1) SEL-2411 (SVC), (4) Battery Chargers, (2) Beckwith M2001D, (2) ITM509, (2) Hydran, (2) Doble-IDD, (14) GARD 8000, (4) SEL-2506, (5) Revenue Meters, (1) PDC SEL-3573; Oakdale Substation: New relays: (2) SEL-411L, (2) L90, (4) GARD 8000; Coopers Corners Substation: New relays: (2) GARD 8000; Modified relays: (1) SEL-421, (1) D60; Jennison Substation: New relays: (1) L90, (2) GARD 8000; Modified relays: (1) SEL-421</p> <p>OUTAGE 4 Fraser Substation: New relays: (6) SEL-451, (4) SEL-487B, (4) GE-B30, (1) SEL-487E, (1) GE T60, (1) SEL-487V, (1) GE-C70, (8) SEL-2411 (CH alarm), (22) SEL-2411 (MOD/Breaker), (2) SEL-2411 (Transformer), (2) SEL-2411 (AC system), (4) Battery Chargers, (1) Beckwith M2001D, (1) ITM509, (1) Hydran, (1) Doble-IDD, (1) PDC SEL-3573</p> <p>OUTAGE 6 Fraser Substation: New relays: (6) SEL-451, (3) SEL-487B, (3) GE-B30, (1) SEL-487E, (1) GE T60, (1) SEL-487V, (1) GE-C70, (6) SEL-2411 (CH alarm), (26) SEL-2411 (MOD/Breaker), (2) SEL-2411 (Transformer), (2) SEL-2411 (AC system), (1) Beckwith M2001D, (1) ITM509, (1) Hydran, (1) Doble-IDD, (2) GARD 8000, (1) PDC SEL-3573</p> <p>OUTAGE 7 Fraser Substation: New relays: (6) SEL-451, (1) SEL-421, (1) GE D60, (1) SEL-487B, (3) GE-B30, (1) SEL-487E, (1) GE T60, (5) SEL-2411 (CH alarm), (7) SEL-2411 (MOD/Breaker), (2) SEL-2411 (AC system), (2) GARD 8000, (1) PDC SEL-3573, (2) SEL-2506</p> <p>OUTAGE 9 Fraser Substation: New relays: (1) SEL-451, (1) SEL-421, (1) GE L90, (3) SEL-2411 (CH alarm), (4) SEL-2411 (MOD/Breaker), (2) SEL-2411 (AC system), (2) GARD 8000, (1) PDC SEL-3573</p> <p>OUTAGE 10 Fraser Substation: New relays: (2) SEL-451, (1) SEL-411L, (2) L90, (1) SEL-2411 (SVC), (3) SEL-2411 (CH alarm), (7) SEL-2411 (MOD/Breaker), (2) SEL-2411 (AC system), (1) PDC SEL-3573</p> <p>OUTAGE 11 Fraser Substation: New relays: (8) SEL-451, (1) SEL-421, (1) GE D60, (2) SEL-487B, (3) GE-B30, (1) SEL-487V, (5) SEL-2411 (CH alarm), (4) SEL-2411 (MOD/Breaker), (2) SEL-2411 (AC system), (2) GARD 8000, (1) PDC SEL-3573, (2) SEL-2506; Coopers Corners Substation: New relays: (2) GARD 8000; Modified relays: (1) SEL-421, (1) D60</p> <p>OUTAGE 12 Fraser Substation: New relays: (5) SEL-451, (1) D60, (1) SEL-411L, (1) GE L90, (1) SEL-487B, (2) GE-B30, (1) SEL-487V, (6) SEL-2411 (CH alarm), (7) SEL-2411 (MOD/Breaker), (2) SEL-2411 (AC system), (2) GARD 8000, (1) PDC SEL-3573; Oakdale Substation: New relays: (1) SEL-411L, (1) L90, (2) GARD 8000</p>	<p>Verification of control, CT and PT circuits in their entirety. Manufacturer's commissioning checks – I/O function, metering command, etc. Develop and execute relay test plan to verify proper operation of protective elements; thorough logic testing to verify all logic equations. Verify DNP point maps of all equipment. Assist RGE SCADA personnel with verification of analog and digital I/O. Monitoring during initial energizing / loading and collection of in-service readings.</p>

Fraser T&C Lump Sum Bid Form

Instructions: Bidders to complete all orange cells below with appropriate data

Bidder's Company Name:	
Bidder's Contact Information:	
Date:	
Rev:	

Item	Description	Scope Clarification
4	<p>T&C of OT Equipment: ULTIMATE SCHEME Fraser Substation: New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000 OUTAGE 4 Fraser Substation: New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000 OUTAGE 6 Fraser Substation: New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000 OUTAGE 7 Fraser Substation: New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000 OUTAGE 9 Fraser Substation: New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000 OUTAGE 10 Fraser Substation: New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000 OUTAGE 11 Fraser Substation : New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000 OUTAGE 12 Fraser Substation: New Ethernet Switches: (2)-16FA RX1500, (12)-16SA/16SB RX5000</p>	<p>Verification of interconnecting communication physical mediums between relays and other network equipment Manufacturer's commissioning checks Develop and execute network test plan to verify proper connectivity between all substation equipment and the substation LAN Perform fail-over testing for the redundant ethernet connections including the main ring.</p>
5	<p>T&C of A&I Equipment: ULTIMATE SCHEME Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) SEL-2407, (4) Meinberg SDU, (2) Checkpoint 1200R Oakdale Substation: Modified Devices: (1) SMP; Coopers Corners Substation: Modified Devices: (1) SMP, (1) HMI Touchscreen; Jennison Substation: Modified Devices: (1) RTAC, (1) HMI Touchscreen, (1)- Checkpoint 1200R OUTAGE 4 Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) Meinberg SDU, (2)- Checkpoint 1200R, (4) SEL-2407 OUTAGE 6 Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) Meinberg SDU OUTAGE 7 Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) Meinberg SDU OUTAGE 9 Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) Meinberg SDU OUTAGE 10 Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) Meinberg SDU OUTAGE 11 Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) Meinberg SDU; Coopers Corners Substation: Modified Devices: (1) SMP, (1) HMI Touchscreen OUTAGE 12 Fraser Substation: New Devices: (2) RTAC SEL-3555, (2) SCU SEL-3355, (4) Meinberg SDU; Oakdale Substation; Modified Devices: (1) SMP</p>	<p>Integration system commissioning, including but not limited to items below: Local Station HMI control, monitoring and alarms as well as any other functions Remote Terminal Unit (RTU) RTU to SCADA interface including a complete point by point check to EMS Protective Relay Analog to Digital Monitoring and Alarm functions in RTU SEL-TEAM Network platform including VLAN configuration and message tagging HMI to Digital Substation Database end to end check, if necessary Testing of HMI-SCU for security / hardening Remote Engineering Access to each IED including all relays, transformer monitors, etc Station Sequence of Event Recorder</p>

Fraser T&C Lump Sum Bid Form

Instructions: Bidders to complete all orange cells below with appropriate data

Bidder's Company Name:	
Bidder's Contact Information:	
Date:	
Rev:	

Item	Description	Scope Clarification
6	<p>Functional Testing: Devise and execute functional tests of protection schemes. This will include development of outage sequence and turndown requirements. Coordination of outages with ECC will be completed by others. Avangrid relay technician support for turndowns involving in-service equipment may also be required.</p>	Protection & Integration System Commissioning, including but not limited to the items below: Protective relay element and logic testing for all protection devices Protection Settings Relay Logic (custom and factory as needed) Disturbance Monitoring (DME) Functionality Remote End Substation Commissioning Remote End High Speed Communication end-to-end testing All protection and control circuits must be verified (functional testing: Breakers, switches, lockouts, alarms, controls, status)
7	<p>Final T&C Package:</p>	Compliance with Avangrid procedures including completion of PSMP forms and submittal of test data in hardcopy and electronic format. Complete Pre and Post Energization Checklists Provide two sets of highlighted / red-lined as-built drawings, logic, data maps, etc. documenting complete testing and functional
8	<p>Onsite Training</p>	

Fraser - ULTIMATE SCHEME

PayCU ID

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS002	SEL-421	345/115/34.5kV Line Distance
T&CLS003	SEL-411L	Line Differential
T&CLS004	GE-L90	345/115kV Line Current Differential
T&CLS006	SEL-487B	345/115/34.5kV Bus Differential
T&CLS007	GE-B30	345/115kV Bus Differential
T&CLS008	SEL-487E	345/115kV Transformer Differential/Reactors
T&CLS009	GE T60	345/115/34.5/12kV Transformer Differential/Reactors
T&CLS010	SEL-487V	Capacitor Protection and Control System (System A)
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS022	n/a	HMI Screen
T&CLS023	n/a	Keyboard/Mouse Tray
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS031	SEL-2411	I/O Module (Transformer I/O)
T&CLS032	BECKWITH	LTC-Voltage Regulator
T&CLS035	Qualitrol 509	Monitor temperature (direct winding)
T&CLS037	Doble-IDD	345 kV Auto-Transformer Bushing Monitor
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU
T&CLS091	Battery Charger	DC Rectifier communications setup and alarm testing
T&CLS092	ATS	Configure and test AC Services Automatic Transfer Switch
T&CDB604	Metering	Revenue Meter (single point, 3 I, 3 V)
NA	49W (QUALITROL)	Transformer Winding Temp Monitor
NA	TBD	Line Tuning Unit (LTU)
NA	RFL GARD 8000	Line Distance HS Comm. Channel
NA	NA	Onsite Training with Switchmen and Relay Technicians
T&CLS011	C70	Capacitor Protection and Control System (System B)
T&CLS005	D60	345/115/34.5kV Line Distance
T&CLS036	GE Hydran M2P2BU	Transformer Combustible Gas Monitor
NA	1200R	Checkpoint Firewall
NA	SEL-2506	I/O Module
NA	NA	Additional Mobilisation/Demobilisation
NA	NA	Transformer thru fault test (per new transformer).
NA	NA	Description of activity: perform full Transformer short circuit test, including assisting in Generator connections both before and after test (Generator rental not included in scope), create available forms to record all secondary current value and if applicable all voltage devices, verify proper addition and subtraction of multiple CT's for transformer differential scheme, restore all equipment to as-found state. Testing Procedure will be provided by T&C Department

Fraser - ULTIMATE SCHEME**PayCU ID****Fraser - OUTAGE 4**

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS006	SEL-487B	345/115/34.5kV Bus Differential
T&CLS007	GE-B30	345/115kV Bus Differential
T&CLS008	SEL-487E	345/115kV Transformer Differential/Reactors
T&CLS009	GE T60	345/115/34.5/12kV Transformer Differential/Reactors
T&CLS010	SEL-487V	Capacitor Protection and Control System (System A)
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS031	SEL-2411	I/O Module (Transformer I/O)
T&CLS032	BECKWITH	LTC-Voltage Regulator
T&CLS035	Qualitrol 509	Monitor temperature (direct winding)
T&CLS037	Doble-IDD	345 kV Auto-Transformer Bushing Monitor
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU
T&CLS091	Battery Charger	DC Rectifier communications setup and alarm testing
T&CLS011	C70	Capacitor Bank Protection
T&CLS036	GE Hydran M2P2BU	Transformer Combustible Gas Monitor
NA	1200R	Checkpoint Firewall

Fraser - ULTIMATE SCHEME**PayCU ID****Fraser - OUTAGE 6**

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS006	SEL-487B	345/115/34.5kV Bus Differential
T&CLS007	GE-B30	345/115kV Bus Differential
T&CLS008	SEL-487E	345/115kV Transformer Differential/Reactors
T&CLS009	GE T60	345/115/34.5/12kV Transformer Differential/Reactors
T&CLS010	SEL-487V	Capacitor Protection and Control System (System A)
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS031	SEL-2411	I/O Module (Transformer I/O)
T&CLS032	BECKWITH	LTC-Voltage Regulator
T&CLS035	Qualitrol 509	Monitor temperature (direct winding)
T&CLS037	Doble-IDD	345 kV Auto-Transformer Bushing Monitor
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU
NA	RFL GARD 8000	Line Distance HS Comm. Channel
T&CLS011	C70	Capacitor Bank Protection
T&CLS036	GE Hydran M2P2BU	Transformer Combustible Gas Monitor

Fraser - ULTIMATE SCHEME**PayCU ID****Fraser - OUTAGE 7**

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS002	SEL-421	345/115/34.5kV Line Distance
T&CLS006	SEL-487B	345/115/34.5kV Bus Differential
T&CLS007	GE-B30	345/115kV Bus Differential
T&CLS008	SEL-487E	345/115kV Transformer Differential/Reactors
T&CLS009	GE T60	345/115/34.5/12kV Transformer Differential/Reactors
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU
T&CLS005	D60	345/115/34.5kV Line Distance
NA	1200R	Checkpoint Firewall
NA	SEL-2506	I/O Module

Fraser - OUTAGE 9

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS002	SEL-421	345/115/34.5kV Line Distance
T&CLS004	GE-L90	345/115kV Line Current Differential
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU
NA	RFL GARD 8000	Line Distance HS Comm. Channel

Fraser - ULTIMATE SCHEME**PayCU ID****Fraser - OUTAGE 10**

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS007	GE-B30	345/115kV Bus Differential
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU

Fraser - OUTAGE 11

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS002	SEL-421	345/115/34.5kV Line Distance
T&CLS004	GE-L90	345/115kV Line Current Differential
T&CLS006	SEL-487B	345/115/34.5kV Bus Differential
T&CLS007	GE-B30	345/115kV Bus Differential
T&CLS010	SEL-487V	Capacitor Protection and Control System (System A)
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU
NA	RFL GARD 8000	Line Distance HS Comm. Channel
T&CLS005	D60	345/115/34.5kV Line Distance
NA	1200R	Checkpoint Firewall
NA	SEL-2506	I/O Module

Fraser - ULTIMATE SCHEME**PayCU ID****Fraser - OUTAGE 12**

T&CLS001	SEL-451	345/115/34.5kV Bay Control (Line Breakers/Transformer)
T&CLS003	SEL-411L	Line Differential
T&CLS004	GE-L90	345/115kV Line Current Differential
T&CLS006	SEL-487B	345/115/34.5kV Bus Differential
T&CLS007	GE-B30	345/115kV Bus Differential
T&CLS010	SEL-487V	Capacitor Protection and Control System (System A)
T&CLS017	SEL-2407	GPS Clock (System A, System B)
T&CLS018	MEINBERG	IRIG Optical Distribution Devices
T&CLS021	SEL-3355	Substation Control Unit
T&CLS024	SEL-3573	Phasor Data Concentrator (PDC)
T&CLS025	SEL-2411	I/O Module (Control House I/O)
T&CLS025	SEL-2411	I/O Module (Circuit Breakers)
T&CLS025	SEL-2411	I/O Module (MOD)
T&CLS026	SIEMENS-RX5000	Operation Technology Network Switch
T&CLS027	SIEMENS-RX1500	Operation Technology Network Router and Firewall
T&CLS075	SEL-3555	Real-Time Automation Controller (RTAC), 17-Ports 3-RU
NA	RFL GARD 8000	Line Distance HS Comm. Channel

Fraser - ULTIMATE SCHEME**PayCU ID****Oakdale**

T&CLS003	SEL-411L	Line Differential
T&CLS004	GE-L90	345/115kV Line Current Differential
NA	RFL GARD 8000	Line Distance HS Comm. Channel
NA	SMP	Updates to SMP for new/modified relays

Coopers Corners

NA	RFL GARD 8000	Line Distance HS Comm. Channel
NA		Modification to SEL-421 relay
NA		modification to D60 relay
NA	RTAC	Updates to SMP for new/modified relays
NA	HMI	Updates to HMI for new/modified relays

Jennison

T&CLS004	GE-L90	345/115kV Line Current Differential
NA	RFL GARD 8000	Line Distance HS Comm. Channel
NA		Modification to SEL-421 relay
NA	RTAC	Updates to RTAC for new/modified relays
NA	HMI	Updates to HMI for new/modified relays

SCHEDULE D-2

Fully-Burdened Hourly Labor Rates

AVANGRID Bid Rate Form Technical Services T&M Bid Sheet - Fraser

Instructions: Bidders to complete all orange cells below with appropriate data: Bidder's Company Name, Bidder's Contact Information, Date of Bid Proposal, Hourly rate by title, Quantity of Hours by title, Unit Rates for Per Diems, Quantity of Per Diems, any additional

Bidder's Company Name:	
Bidder's Contact Information:	
Date:	

Anticipated T&M Scope Items:	ENGINEERING DISCIPLINE TITLES, HOURLY RATES AND HOURS FOR EACH TASK (to be completed by CONTRACTOR)																	Total Hours	Total Price (Tasks)			
	CAD																					
	Commissioning	Sr Commissioning	Commissioning	A&I	Sr. A&I	A&I	P&C	Sr. P&C	P&C													
Add/Modify as necessary....																						

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 the schedule for the Services, the scope of the Services, the quality of the Services and the timeliness or responsiveness to any other Customer requests. Unsatisfactory performance may result in the development of a Supplier performance improvement plan.

If the Supplier's Services schedule for any activity directly or indirectly causes a Critical Path activity to become deficient by one (1) week from the Baseline Schedule, the Supplier shall submit to Customer, for review and approval, a recovery plan within five (5) business days of the reported schedule deficiency. The recovery plan shall include an explanation of all the activities delayed, and a planned corrective action to restore delayed activities to meet the Services Baseline Schedule. Upon direction from Customer, Supplier shall immediately implement the recovery plan to get the activity back to the baseline schedule.

Supplier's Services are accepted by receiving Customer's Certification of the PayCU supporting documents as approved. The Supplier will submit invoices attaching Certification of PayCU deliverables as listed on the Bid Form.

Reporting

Supplier shall furnish status updates in the form of a report, at a minimum, every week.

Training

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

Project Milestone Delays – Self-Help Option & Reimbursement Costs

Supplier acknowledges and agrees that Supplier shall diligently complete the Services, including, without limitation, to provide Customer with written evidence as required under this Agreement and at Customer's request demonstrating that Supplier is providing the Services as stated in Schedule B under this Agreement. In addition, if at any time, upon reasonable notice, the Supplier neglects, fails, or refuses to demonstrate to the Customer that the Services will be timely completed by Supplier in accordance with the Agreement including but not limited to the Supplier's Conditions in Schedule E herein, then Customer may immediately exercise all remedies under this Agreement and Applicable Law. Without limiting the foregoing, the Customer's remedies for failure to timely complete the Services include, but are not limited to, utilizing Customer's own forces (directly or through a consultant/contractor) at Customer's election in its sole discretion to re-direct the Supplier's efforts or for Customer to (directly or through a consultant/contract)

takeover element(s) of the Services from Supplier as Customer deems necessary to mitigate any delays incurred by the Customer or Customer's other contractors(hereinafter, the "Self-Help Option"). For purposes of clarity, the Customer's election to exercise the Self-Help Option in the foregoing sentence to utilize forces for such mitigation efforts shall immediately allow Customer to seek reimbursement from Supplier for all reasonable costs and expenses arising out of the election and performance of the Self-Help Option (collectively, the "Reimbursement Costs"), and Customer shall be entitled to payment from Supplier for such Reimbursement Costs. A reference to any "Applicable Law" means such applicable law as amended, modified, codified, replaced or re-enacted, and all rules and regulations promulgated thereunder.

Any Self-Help Option exercised by Customer and payment of the Reimbursement Costs shall neither relieve the Supplier of any of its obligations set forth in this Agreement, nor prejudice Customer's rights under the Agreement or Applicable Law.

Nothing set forth in this Article shall obligate Customer to exercise any such option or to utilize Customer's forces to mitigate delays for Supplier's failure to perform the Services as set forth in Schedule B.

Liquidated Damages

If the Supplier neglects, fails, or refuses to complete the Services within the time specified for any Project Milestone in this Agreement, then the Supplier does hereby agree to pay to the Customer, as liquidated damages ("Liquidated Damages") and not as a penalty, for any Project Milestone, the sum as calculated for the applicable Project Milestone(s) in the table below the sum of one percent (1%) of the applicable Substation Asset price each calendar week beyond the Project Milestone Completion Date until the Project Milestone is achieved.

Such Delay Liquidated Damages shall never exceed fifteen percent (15%) of the applicable Substation Asset Price, provided however that Customer shall be entitled to terminate the Agreement and corresponding Purchase Order in the event the Supplier has failed to reasonably demonstrate the ability to achieve the Project Milestone(s) within thirty (30) days after the Liquidated Damages cap set forth herein has been exceeded. In no event shall the payment of any Liquidated Damages excuse Supplier from performance of any of its other obligations under this Agreement or prejudice Customer's rights under the Agreement or Applicable Law.

The said amount is fixed and agreed on by and between the Supplier and the Customer because of the impracticability and extreme difficulty of fixing and ascertaining the true value of the damages which the Customer will sustain by failure of the Supplier to complete the Services on time, such as loss of revenue, service charges, interest charges, delays caused to other construction activities of Customer by failure to perform this Contract, and other damages, some of which are indefinite and not susceptible of easy proof. The Liquidated Damages amount is agreed to be a reasonable estimate of the amount of damages which the Customer will sustain and said amount shall be deducted from any monies due or that may become due to the Supplier. If monies owed to Supplier under this Agreement are insufficient to cover said Liquidated Damages, then the Supplier shall pay the amount of the difference.

The Liquidated Damages provisions herein shall survive the completion or earlier termination of this Agreement.

Project Milestones

Substation Asset	Project Milestone	Completion Date##	Liquidated Damages
Fraser	Substantial Completion	December 31, 2023	1% of the applicable Substation Asset price per calendar week late.

- Defined Completion Dates are preliminary and will be confirmed with Supplier-Approved Outage Sequence and Commissioning Plan documents.

SCHEDULE F

Notices

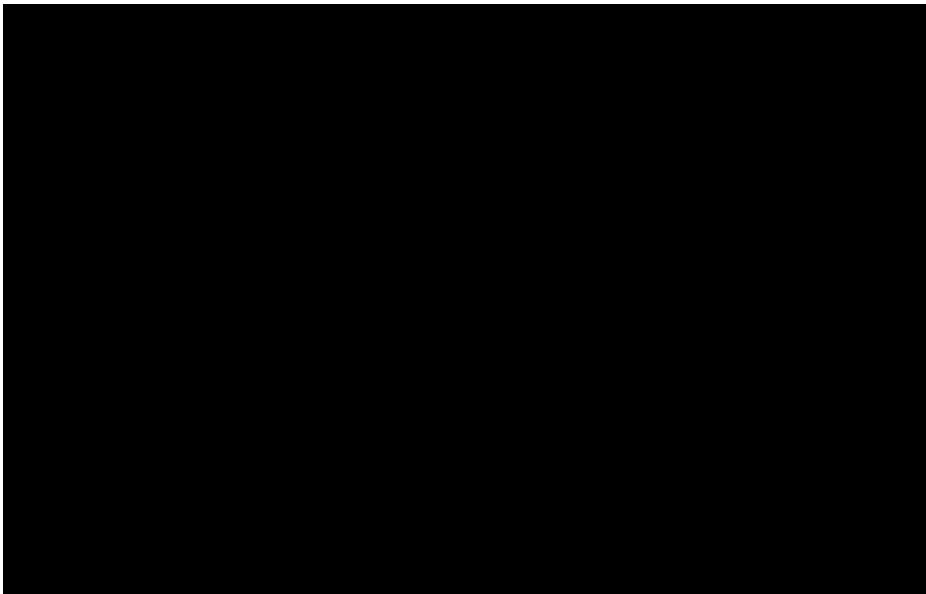
Along with all other correspondence requirements included in this Agreement, any notice, request, approval or other document required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been sufficiently given when delivered in person or deposited in the U.S. 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. The parties shall acknowledge in writing the receipt of any such notice delivered in person.

All communications to AVANGRID Service Company 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
BES Program Manager
1300 Scottsville Road
Rochester, New York 14624
Attention: Imanol Zuniga
Email: Imanol.zuniga@avangrid.com

All communications to Supplier shall be directed to:



[Redacted] – Testing & Commissioning Services
[Redacted]
[Redacted]

SCHEDULE G

Insurance Requirements

Before commencing any 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. 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 in like form and amounts as outlined in Section 1 below. In the event that Customer elects to pay any deductible and/or SIR to access any insurance policy, Supplier shall promptly reimburse Customer for such payment.

Breach of Insurance: Supplier's failure to obtain and maintain insurance coverage required in this Agreement shall constitute a material breach of the Agreement. In such event Customer, may at its option: (1) terminate the Supplier for default; or (2) purchase such coverage and back charge the premium and associated costs to Supplier; or (3) at their respective option, Customer and/or an additional insured can require the Supplier to pay for attorneys' fees, expenses, damages and liability as a result of any claim or lawsuit to the extent coverage would have been provided to them under Supplier's insurance but for Supplier's breach. Customer has the right to back charge Supplier for such sums.

Prior to the commencement of: (1) any Services by Supplier; (2) the issuance of the Notice To Proceed by Customer; and (3) the entry onto the project site or other field locations, Supplier shall furnish Customer with Certificates of Insurance and all required endorsements evidencing the Supplier's and/or Subcontractor's possession of insurance with the minimum coverage limits as outlined in Section 1 below for Customer's review and approval.

Certificates of Insurance shall be provided annually to Customer. Within 10 days of receipt of notice of cancellation, reduction in coverage, or non-renewal, Supplier shall provide Customer with certificates evidencing replacement or reinstatement of the required coverage.

Supplier shall deliver the certificates of insurance and required endorsements, each referencing the Customer as the certificate holder to: (1) Customer's Procurement Department; and (2) Customer's Program Management at the addresses listed herein.

E-mail: (preferred method)

Procurement E-mail Address.

Jonathan Hinett, jonathan.hinett@avangrid.com

Program Management E-mail Address.

Imanol Zuniga, Imanol.zuniga@avangrid.com

Mail:

Customer's Procurement Department: AVANGRID Service Company, Procurement Department/Insurance Cert., 89 East Avenue, Rochester, NY 14649-0001, Attention Jonathan Hinett

Customer's Program Management: AVANGRID Networks, Inc., 1300 Scottsville Road, Rochester, NY 14624, Attention – Imanol Zuniga

Failure of Customer to demand certificates, endorsements, or other evidence of full compliance with these insurance requirements, or failure of Customer to identify a deficiency from evidence that is provided, shall not be construed as a waiver of Supplier's obligation to maintain such insurance. Furthermore, IT IS EXPRESSLY AGREED BETWEEN CUSTOMER AND SUPPLIER'S SUBCONTRACTORS THAT THE FAILURE OF SUPPLIER TO REQUIRE OR VERIFY COMPLETE AND TIMELY PERFORMANCE OF THE SUBCONTRACTOR'S OBLIGATIONS UNDER THE SUBCONTRACT OR AGREEMENT SHALL NOT BE A WAIVER BY SUPPLIER OF ANY RIGHT OF SUPPLIER TO REQUIRE SUBCONTRACTORS TO COMPLY WITH THESE INSURANCE REQUIREMENTS AND/OR TO SEEK DAMAGES BECAUSE OF A SUBCONTRACTOR'S FAILURE TO COMPLY WITH THE INSURANCE REQUIREMENTS REQUIRED HEREUNDER.

Supplier shall provide Customer with prompt and timely notice of claims made or suits instituted that arise out of or result from Supplier's performance of this Agreement, and that involve or may involve coverage under any of the required liability policies.

1. Required Insurance, Coverage and Minimum Amounts

Each insurance policy shall 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's Rating of not less than "B+" and a policyholder surplus of at least \$25,000,000.

All insurance where Customer is an additional insured must contain provisions which state that the policy will respond to claims or suits by Customer against the Supplier/Consultant/ Labor supplier/etc.

All insurance policies, with the exception of professional liability, must be written on an "occurrence" basis. Professional Liability Insurance shall be written on a "claims made" basis. Supplier shall provide 30 days' prior written notice of cancellation to certificate holder (10 days' prior written notice for failure to pay premium). Such notice of cancellation must be provided to Customer via the addresses herein for Customer's Procurement Department and Customer's Program Management.

All of the insurance required herein will be primary to any or all other insurance coverage in effect for Customer.

None of the requirements contained herein as to types, limits and approval of insurance coverage to be maintained by Supplier or Subcontractors are intended to, nor shall they in any manner limit or qualify the liabilities and obligations assumed by Supplier or Subcontractor under this Agreement.

Scope/Limits of Insurance: To the fullest extent permitted by law, the coverage provided to the additional insureds must be at least as broad as that provided to the first named insured on each policy. In the event that any policy provided in compliance with this Agreement states that the coverage provided to an additional insured shall be no broader than that required by contract, or words of similar meaning, the Parties agree that nothing in this Agreement or elsewhere in the Contract Documents is intended to restrict or limit the breadth of such coverage.

Each General and/or Umbrella Liability Insurance policy shall be endorsed with the following Cross Liability clause: In the event of claims being made by reason of personal and/or bodily injuries suffered by any employee or employees of one insured hereunder for which another insured hereunder is or may be liable, then this policy shall cover such insured against whom a claim is made or may be made in the same manner as if separate policies had been issued to each insured hereunder, except with respect to limits of insurance. In the event of claims being made by reason of damage to property belonging to any insured hereunder for which another insured is or may be liable, then this policy shall cover such insured against whom a claim is made or may be made in the same manner as if separate policies had been issued to each insured hereunder, except with respect to the limits of insurance.

No Limitation: The insurance requirements set forth and the coverage maintained by Contractor shall not limit any of Contractor's indemnity obligations or other liabilities under the Subcontract or Agreement.

1.1 **Workers' Compensation and Employers' Liability Insurance** in accordance with the statutory requirements (including occupational disease) of the State in which the project is located and the State of hire, if different. Employer's Liability Coverage will be provided with limits not less than \$1,000,000 per occurrence and in aggregate. Terms and conditions shall include:

- USL&H – where applicable by law.
- Jones Act – where applicable by law.
- All states endorsement – where applicable by law.
- Certificate must clearly identify that coverage applies in the State where the work is performed.

If Supplier or its subcontractors leases one or more employees through the use of a payroll, employee management or other company, Supplier must procure workers compensation insurance written on an "If Any" policy form and will be in addition to the worker's compensation coverage provided to the leased employees by the payroll, employee management or other company. The Insurance shall include an endorsement providing coverage for Alternate Employer/leased Employee liability.

1.2 **Business Automobile Liability Insurance** covering all owned, leased and non-owned vehicles used in connection with the work with limits of \$5,000,000 combined single limit per accident for bodily injury and property damage which shall apply as primary and non-contributory insurance.

The policy must include coverage for bodily injury, death and property damage arising out of ownership, maintenance, or use of any motorized vehicle on or off the site of the Project, including contractual Liability coverage.

The policy must be endorsed to include Customer as additional insureds on a primary and non-contributory basis, but only in regard to operations performed by Supplier under this Agreement, and not to the extent of any act or omission or operation of the additional insured party or parties and shall also be endorsed to include a waiver of subrogation in favor of the Customer where Supplier may provide services or work under this Agreement, but only to the extent of Supplier's negligence in and during the performance of Supplier's services hereunder.

1.3 **Professional Liability Insurance** where if the Work includes design responsibilities, whether for design of permanent work or for "means-and-methods" or other reasons, prior to the commencement of the Work, the Supplier shall, and shall cause its applicable Subcontractors to, provide Professional Liability Insurance, including evidence thereof, for claims that arise from the acts, errors, or omissions of the Supplier, such Subcontractor, or any party acting on behalf of the Supplier, in the provision of professional services, in an amount no less than \$5,000,000 for lead Design Professionals, \$1,000,000 for Sub Design Professionals.

The policy shall be effective (retroactively, if applicable) from the date of commencement of all professional activities in connection with the Work until six (6) years after the completion date of the project or the expiration of the applicable statute of repose of the State in which the Project is located (whichever is greater/longer).

Coverages shall include:

- No exclusions for delays in Project completion and cost overruns.
- Insurance shall be primary and non-contributory.
- Policy shall include a provision that written notice to the carrier during the policy period of a circumstance that could result in a claim preserves coverage for a claim subsequently arising from the circumstance.
- No exclusion for mold, fungus, asbestos, pollutants, etc. The Contractor is required to notify the Owner of any claims occurring during the Policy Period if such claims could reduce the amount of coverage available to the Owner.

A Professional Liability Policy will not be required for means-and-methods if such coverage is specifically provided under Supplier's Commercial General Liability Policy and satisfactory evidence is provided to Customer to show same.

1.4 **Pollution Liability Insurance** covering losses caused by pollution conditions that arise from Supplier's operations including on-site, off-site and in-transit exposures, and loading and unloading. Coverage to include bodily injury, personal injury, sickness, disease sustained by any person, including death; property damage or destruction, including loss of use; clean-up costs;

property damage including loss of use of damaged property or property not physically injured or destroyed, including diminution of value and Natural Resources damages; defense costs including costs, charges and expenses incurred in investigation, adjustment or defense of claims; and broad-form contractual liability coverage. Contractual liability shall not contain limiting endorsements. Coverage limits shall not be less than \$5,000,000 per Claim and \$5,000,000 annual aggregate.

The policy must be endorsed to include Customer as additional insureds on a primary and non-contributory basis and shall also be endorsed to include a waiver of subrogation in favor of the Customer where Supplier may provide services or work under this Agreement.

- 1.5 **General Liability (Comprehensive or Commercial Form) Insurance**, including coverage for Premises/Operations, Underground/ Explosion & Collapse Hazard, Products/Completed Operations, Contractual Liability specifically insuring the attached Indemnity Agreement, Independent Contractors, Broad Form Property Damage, and Personal Injury, in the amount of \$5,000,000 per occurrence and \$5,000,000 aggregate.

The amount of insurance may be satisfied by purchasing primary coverage in the minimum (or greater) amounts specified or by purchasing a separate excess Umbrella Liability policy together with lower limit primary coverage.

The policy or policies must be endorsed to include Customer as additional insureds on a primary and non-contributory basis, including both ongoing and completed operations for Commercial General Liability Insurance, but only in regard to operations performed by Supplier under this Agreement, and not to the extent of any act or omission or operation of the additional insured party or parties, and the policy or policies shall also be endorsed to include a waiver of subrogation in favor of the Customer where Supplier may provide services or work under this Agreement, but only to the extent of Supplier's negligence in and during the performance of Supplier's services hereunder.

SCHEDULE H

Background Check Requirements

Domestic Background Checks

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. 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 – Moving Violations
- 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 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 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.

Foreign Background Checks

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. 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:

NERC CIP Access. If applicable (i.e., when AVANGRID determines that the Contractor engagement is such that compliance with NERC CIP Standards is required), the background check needs to include an identity verification and 7-year criminal history check as more particularly set forth below.

- For someone who has resided and/or worked outside of Spain in the last 7 years, the contractor should perform an International Background Check to show the absence or existence of a criminal record. International background checks should verify known data such as employment, education, criminal and civil records, travel and immigration records, as well as address and identity verification
- For someone who has resided and worked only in Spain for the last 7 years, their passport and recent Criminal Record Certificate from the Spanish Ministry of Justice is sufficient (assuming it shows the absence of a criminal record).
- Due to EU privacy rules, the Criminal Record Certificate can only be supplied to the applicant after proof of identify. The Certificate certifies the absence or existence of a criminal record. If the applicant is not willing to obtain and provide the Certificate, an International Background Check should be conducted.

Non-CIP Access. To comply, the background check needs to include the following:

- For someone who has resided and/or worked outside of Spain in the last 7 years, the vendor should include identity verification and perform an **International Background Check** to show the absence or existence of a criminal record. The international background check should verify known data such as employment, education, criminal and civil records, travel and immigration records, as well as identity.
- For someone who has resided and worked only in Spain for the last 7 years, a **certificate duly signed** by the vendor is sufficient if it states that its employee(s) assigned to work for AVANGRID Service Company (i) are duly affiliated to the Spanish Social Security and (ii) have the necessary academic and professional experience.

The Background Check must be completed prior to initial access by Contractor Representative(s) and must 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 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.

SCHEDULE I

AVANGRID Data Security Rider



AVANGRID Privacy and Data Security Rider

This Privacy and Data Security Rider (the "Rider") is entered into 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 performed upon Personal Data or Company Data, whether or not by automatic means, including, without limitation,

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[REDACTED] only if necessary.

[REDACTED]



AVANGRID Privacy and Data Security Rider

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 into.

(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. 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

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[Redacted] only if necessary.
[Redacted]
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AVANGRID Privacy and Data Security Rider

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 Data, the parties agree that:

- The Processing activities that will be carried out by VENDOR are: copies, deletes, reads, receives, stores and updates.
- The categories of Personal Data that will be Processed by VENDOR are: Public, Internal Use or Confidential in nature.
- The categories of Personal Data subjects whose information will be processed by VENDOR are: engineering specifications, technical documentation and electrical equipment data sheets.
- The instructions for the Processing of Personal 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 in accordance with the applicable state and federal security and data protection laws. All drawings will be exchanged in the ProjectWise application.

(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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[Redacted] only if necessary.

[Redacted]



AVANGRID Privacy and Data Security Rider

(f) At any and 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 appropriate to the risk,





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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 violations; and

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(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 in order 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 in order 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 any and all requests, complaints, or other communications received from any 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;





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(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 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.

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(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 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 suffered or sustained, caused by,

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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]



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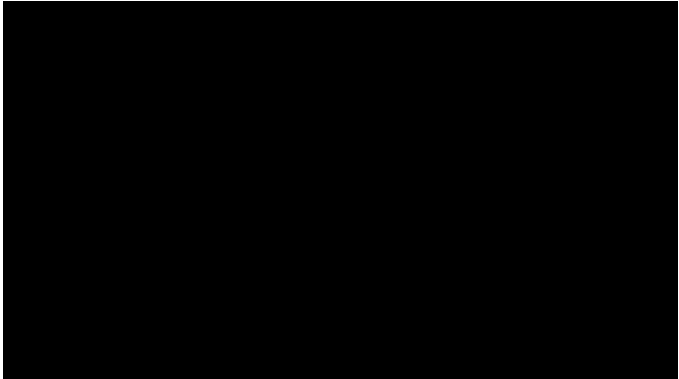


AVANGRID Privacy and Data Security Rider

IN WITNESS WHEREOF, CUSTOMER and VENDOR have caused their representatives to execute and deliver this Privacy and Data Security Rider.

CUSTOMER

DocuSigned by:
Robert Fitzgerald
By: _____
Name: Robert Fitzgerald
Title: VP - Control Networks
Date: 6/28/2021



DocuSigned by:
Catherine Stempien
By: _____
Name: Catherine Stempien
Title: President
Date: 6/25/2021

[Signature page to Privacy and Data Security Rider]



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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, at all times, 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 so as 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.

(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





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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 of 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 absolutely 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.

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

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(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) 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.

(k) 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.

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.

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(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.

(d) **ALTERNATIVE TO BE DISCUSSED:**

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In lieu of a dedicated Cyber Insurance Policy/program, vendor may “self-insure” the first \$10M of any Cyber or Data Security related Risk or Loss. However, it is agreed that any insurance requirements contained herein as to types, limits and approval of insurance coverage to be maintained by Supplier or Subcontractors are not intended to, nor shall they in any manner limit or qualify the liabilities and obligations assumed by Supplier or Subcontractor under this Agreement.

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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.
 - **Avangrid Electronic Devices** are Electronic Devices owned and managed by Avangrid.
 - **Personally Owned Devices (POD)** are Electronic Devices (e.g. smart phones, tablets, laptops) privately owned and managed by Users.
 - **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 in excess of one hour and at all times at the end of the workday.

ii. Desktop and laptop computer screens shall be locked by Users at all times 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 at all times. 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.
- 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.





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- 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 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.



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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.



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SCHEDULE J

Provisions relating to Time, Changes, Claims and Resolution of Disputes

PROVISIONS RELATING TO TIME

1. Obligations to Achieve Contract Completion

1.1. Notice Of Award. Prior to the commencement of the work, Supplier shall submit to Customer for review and approval the required Certificate Of Insurance (“COI”) as specified in Schedule G, the Supplier’s Quality Plan and the Supplier’s Project Safety Plan within five calendar days of the date of the Notice Of Award issued by Customer to Supplier. Customer shall not unreasonably withhold approval of the Supplier’s COI, Quality Plan and Project Safety Plan.

1.2. Notice To Proceed. Upon Customer’s approval of Supplier’s COI, Quality Plan and Project Safety Plan, Customer shall issue to Supplier the Notice To Proceed. On the next calendar day from the date of the Notice To Proceed, Supplier shall be required to commence the Services under this Agreement, prosecute the Services diligently and complete the Services for each of the Big Tree, Erie Street and Fraser Substation Assets not later than the dates specified in Schedule E of the Agreement.

1.3. Supplier agrees that it will commence performance of the Services, complete all of the deliverables in all of the defined PayCUs and achieve the contract times in accordance with the Agreement. Final completion of the Services for each of the Big Tree, Erie Street and Fraser Substation Assets shall occur upon completion of the PayCUs to Customer’s satisfaction.

1.4. Without prejudice to other remedies that Company may have under the Agreement or the law, if Supplier, neglects, fails or refuses to complete the Services within the time specified for the Project Milestones identified in Schedule E of the Agreement, then Supplier shall pay to Company as liquidated damages (“Liquidated Damages”) for such delay, and not as a penalty, the amounts set forth in the Agreement. The amount(s) of the Liquidated Damages and Liquidated Damages cap are subject to the terms in Schedule E of the Agreement.

2. Schedule of Work

2.1. Supplier shall schedule the project in accordance with the requirements of the Agreement. Customer’s basis for rejection of any schedule document, including any changes in critical path method logic, durations, staffing or costs submitted pursuant to Section 2.4 of this Schedule J, shall generally be limited to a determination that the schedule document lacks logic, is unreasonable, is incomplete, may create unsafe working conditions or is inconsistent with any other Agreement requirement, such as a phasing plan, or with available Customer services or resources.

2.2. With respect to any submission by the Supplier, no review or acceptance by the Customer shall relieve the Supplier from its obligation to fully and properly complete the work, or any other duty, responsibility or liability imposed on it under this Agreement, including, but not limited to the obligation to complete the work within the time set forth above in Section 1.2.

2.3. Review and acceptance by Customer of Supplier's project schedule and updates is for conformance to the requirements of the Agreement only, and does not relieve the Supplier of any of its responsibility whatsoever for the accuracy or feasibility of the project schedule, or of the Supplier's ability to meet the completion date for the project, nor does such review and acceptance expressly or impliedly warrant, acknowledge or admit the reasonableness of the logic, durations, staffing or costs of the Supplier's project schedule and updates, nor may it be deemed to constitute notice to the Customer as required by law, by Article 6.1 of the Master Services Procurement Agreement and Schedule F.

2.4. Supplier shall submit to Customer for review and acceptance any changes in critical path method logic, staffing quantities, costs and/or durations in accordance with the requirements of the Agreement.

2.5. Neither the inclusion of changes into a schedule document (whether to the initial baseline schedule or any updates thereto) by the Supplier nor the acceptance or acquiescence in, by Customer, shall be construed as constituting extensions of time to the contract duration as set forth above in Section 1.2. Such changes are deemed to be for the purpose of keeping the schedule up-to-date in order to reflect the work to be accomplished and to include the best time estimate for work yet to be completed.

2.6. The schedule document must be submitted to Customer in proper form and in a timely manner, as required by the Agreement.

2.7. In the event that an updated schedule document is not timely submitted by the Supplier or is determined by Customer to be grossly inadequate, Customer may, in its own discretion and for its own internal use, update the schedule documents with its own forces or through a consultant/contractor and charge the Supplier the costs thereof, provided, however, that this shall not relieve the Supplier of its obligation to submit such update schedule document.

3. Excusable Delay

3.1. In the event that Supplier is actually and necessarily delayed in the progress of the work to the extent that the delay will extend the completion date as a result of: (i) the act, neglect or failure of the Customer, another Customer contractor, a utility or government entity (which act, neglect or failure occurs for reasons outside of the Supplier's role); or (ii) a force majeure event as described in Article 22 of Schedule C, Customer will extend the completion date (or intermediate milestone date in the case where provided for in the Agreement) provided that the following conditions are met:

3.1.1. The cause of the delay arises after Supplier's receipt of the Notice of Award and neither was nor reasonably could have been anticipated by the Supplier before such Notice is received;

3.1.2. The delay is affecting an item(s) on the critical path as indicated in a current updated schedule document.

3.1.3. The effect of such cause of delay cannot be avoided or mitigated by the exercise of all reasonable precautions, efforts and measures, including changes to the sequencing of the work, whether before or after the occurrence of the cause of the delay; and

3.1.4. The Supplier makes a written request and provides other information to Customer as described in this Agreement.

3.2. A delay meeting all the conditions of Section 3.1 shall be deemed an “Excusable Delay.” Any other delay shall be deemed a non-excusable delay. A “Concurrent Delay” shall be the period of delay during which an Excusable Delay overlaps with a non-excusable delay.

4. Extension of Time

4.1. The request required under Section 3.1 above, shall be made within seven (7) calendar days after the time when Supplier knows or should reasonably have known any cause for which it may claim an extension of time and shall provide any actual or potential basis for an extension of time, identifying such cause and describing, to the satisfaction of Customer, the nature and expected duration of the delay and its effect on the completion of the work identified on the request. Supplier shall furnish additional information and documentation, including, but not limited to, a time impact analysis in the form of a Change Order as set forth in Changes Section 4 (for Contract Time only for the purposes of considering the requested extension) within fourteen (14) calendar days after Supplier’s initial request, unless otherwise agreed to in writing by the Customer. The Supplier must also comply with requirements set forth in the Agreement regarding Supplier’s schedule document.

4.2. Supplier shall not be entitled to an extension of time unless the Supplier affirmatively demonstrates to the satisfaction of the Customer, that it is entitled to such extension.

4.3. Within thirty (30) calendar days of receipt of all such information and documentation, Customer shall advise Supplier of its decision on such requested extension; except that, where it is not reasonably practicable for Customer to render such decision in the thirty (30) calendar day period, it shall, prior to the expiration of such period, advise the Supplier that it will require additional time and the approximate date upon which it expects to render such decision. If the Parties reach agreement on the terms of Supplier’s proposed extension of time, a Change Order shall be executed by the Parties. If the Parties are unable to reach agreement on the terms of the proposed extension of time, then the Parties shall follow the processes set forth in the Resolution of Disputes section of this Schedule J.

4.4. Supplier’s failure to provide the written statements in the manner and time required by this Section 4 shall constitute a conclusive presumption that no time adjustment, or other relief, is claimed or warranted for the event or situation giving rise to the relief, and Supplier waives its rights to seek relief for any such event or situation.

5. Customer Rights

5.1. Customer reserves the right to rescind or shorten any time extension previously granted, if subsequently, the Customer determines that any information provided by Supplier in support of a request for an extension of time was erroneous; provided however, that such information or facts, if known, would have resulted in a denial of the request for Excusable Delay. Notwithstanding the above, Customer will not rescind or shorten any extension previously granted if the Supplier acted in reliance upon the granting of such extension and such extension was based on information which, although later found to have been erroneous, was submitted in good faith by the Supplier.

5.2. In the event of an Excusable delay to the completion date, Customer reserves the right, at any time, to direct the Supplier to accelerate the performance of the work so as to eliminate or reduce the projected delay. Any revision to the projected completion date that may result from such an acceleration directive shall become the new completion date.

6. Extension of Time Not Cumulative

6.1. In case the Supplier shall be delayed at any time or for any period by two or more causes for an extension of time, the supplier shall not be entitled to a separate extension of time for each one of the causes but only one period of extension will be granted for the delay.

7. No Supplier's Damages for Delay

7.1. The Supplier agrees to make no claim for compensation or damages for delay of any kind in the performance of this Agreement on behalf of itself or its subcontractors whether occasioned by any act or omission of the contracting party or the Customer or any of their representatives (whether it is an Excusable Delay or otherwise) and Supplier agrees that any such claim shall be compensated for solely by an extension of time to complete the performance of the work as provided in this Agreement. In this regard, Supplier alone hereby specifically assumes the risk of such delays, including without limitation: delays in processing or approving shop drawings, samples or other submittals; or the failure to render determinations, approvals, replies, inspections or tests of the work, in a timely manner. Additionally, Supplier shall not be entitled to compensation or damages for delay of any kind relating to the delay of an intermediate milestone date.

8. Certification of Submissions

8.1. Supplier, under penalty of perjury, shall furnish and execute, contemporaneously with each submission above, a certification by Supplier and its subcontractors that:

8.1.1. The submission is made in good faith.

8.1.2. Supporting data are accurate and complete to the best of Supplier's and/or subcontractor's knowledge and belief; and

8.1.3. The adjustment to the Contract Time(s) requested accurately reflects the adjustment for which Supplier believes Customer is liable.

9. Duty to Proceed

9.1. No dispute between Supplier and Customer, including but not limited to those relating to entitlement or time associated with Supplier's proposed extension of time request, shall interfere with the progress of the work. Supplier shall have the duty to diligently proceed with the work in accordance with Customer's instructions despite any dispute. Supplier's sole recourse in the event of a dispute will be to pursue its rights under the Resolution of Disputes Section of this Schedule J.

10. Burden of Proof

10.1. Supplier shall bear the burden of proof in establishing its entitlement to relief under this Schedule J, including but not limited to adjustments in the Contract Price and/or Contract Time(s).

CHANGES

1. Customer's Right to Make Changes

1.1. Without invalidating this Agreement, Customer may by written order, at any time and from time-to-time, authorize and/or request changes in, additions to, or deletions in the work, including but not limited to those involving changes in, additions to, or deletions: (i) in the Contract Documents; (ii) in the method, manner, sequence and time of performance of the work; (iii) in Customer-furnished services or deliverables; or (iv) directing acceleration of the work. If Customer proposes making a change in the work, Customer shall advise Supplier in writing and Supplier shall follow the processes set forth in Section 2.1 below.

1.2. No oral instruction, order or statement by Customer shall constitute a change under this Agreement. If Supplier believes that any oral instruction, order or statement by Customer may result in a change in the work or require an adjustment in the Contract Price or the Contract Time(s), Supplier shall request that the oral instruction, order or statement be given in writing and shall thereafter comply with the provisions of this Agreement.

1.3. A Change Order signed by Customer and Supplier indicates an agreement between Customer and Supplier regarding scope of the change in the work, and the agreed adjustment to the Contract Price, Contract Time(s), or any other requirement of the Contract Documents. Unless specifically stated to the contrary in the Change Order, an executed Change Order shall constitute the final and complete compensation and satisfaction for all costs and schedule impacts related to: (i) the implementation of the changes that are subject of the Change Order; and (ii) the cumulative impact of effects resulting from such changes on all prior work and changes in the work to be performed as scheduled.

1.4. Customer may request minor changes in the work that do not involve an adjustment in the Contract Price or Contract Time(s), and do not materially or adversely affect the work. If the Supplier disputes that such order involves a minor change, Supplier shall notify Customer in accordance with the provisions of Section 4 of this Schedule J.

2. Customer's Notice of Proposed Change Procedure

2.1. Supplier shall, within twenty-one (21) calendar days after receipt of a notice of a proposed Customer change, prepare and submit to Customer in writing the information set forth in Section 4.2 below. Customer shall use commercially reasonable efforts to review Supplier's submittal with Supplier within thirty (30) days of its receipt of such submittal. If the Parties reach agreement on the terms of Customer's proposed change and Customer elects to proceed with such change, a Change Order shall be executed by the Parties. If the Parties are unable to reach agreement on the terms of the proposed change, Customer shall have the right, in its sole discretion, to direct Supplier to proceed with the change by issuing a Directive Letter to Supplier in accordance with Section 5 below.

2.2. Supplier's failure to provide the written statements in the manner and time required by this Section 2 shall constitute a conclusive presumption that no price or time adjustment, or

other relief, is claimed or warranted for the event or situation giving rise to the relief, and Supplier waives its rights to seek relief for any such event or situation.

3. Customer's Right Not to Undertake a Proposed Change

3.1. Customer shall have the right, at any time and at its sole discretion, not to undertake any proposed change. If Customer elects not to undertake a proposed change for which the Supplier performed services in developing its submittal under Section 2.1, Supplier shall be paid its reasonable services costs incurred for such submittal.

4. Supplier's Proposed Change Orders

4.1. If Supplier believes that it is entitled under the Contract Documents to an adjustment to the Contract Price, Contract Time(s), or other relief due to any event or situation arising out of or related to the work (including but not limited to alleged Excusable Delays, disputes over Customer's instructions or interpretation of the Contract Documents), Supplier shall, within seven (7) calendar days after Supplier knows, or should have reasonably known, of such event or situation giving rise to the requested relief, submit to Customer a written notice labeled "Notice of Proposed Change Order." The Notice of Proposed Change Order shall describe the general nature of the event or situation and, if such Notice involves Excusable Delay, the probable duration thereof.

4.2. Supplier shall, within twenty-one (21) calendar days after providing Customer with a Notice of Proposed Change Order, submit to Owner in writing a proposal that includes: (i) a description of the facts, circumstances and contractual basis for the relief sought, with sufficient specificity for Customer to assess the matter; (ii) the cost data, utilizing the Fully-Burdened Labor Rates as specified in Schedule D-2 of the Agreement, that supports any proposed lump sum adjustments to the Contract Price; and (iii) the scheduling information, including but not limited to a CPM-based Time Impact Analysis required under Provisions Relating to Time Section 4.1 to support any request for adjustment to the Contract Time(s).

4.3. Within thirty (30) days of receipt of all such information and documentation, Customer shall advise Supplier of its decision on such requested Change Order; except that, where it is not reasonably practicable for Customer to render such decision in the thirty (30) day period, it shall, prior to the expiration of such period, advise the Supplier that it will require additional time and the approximate date upon which it expects to render such decision.

4.4. If Customer believes that Supplier's request is justified, in whole or in part, Customer shall advise Supplier and an appropriate Change Order shall be executed. If the Parties are unable to reach agreement on the terms of the proposed change, Customer shall have the right, in its sole discretion, to direct Supplier to proceed with the change by issuing a Directive Letter to Supplier in accordance with Section 5 below.

4.5. Supplier's failure to provide the written statements in the manner and time required by this Section 4 shall constitute a conclusive presumption that no price or time adjustment, or other relief, is claimed or warranted for the event or situation giving rise to the relief, and Supplier waives its rights to seek relief for any such event or situation.

5. Directive Letters

5.1. If the Parties are unable to reach agreement on the terms of: (i) a proposed Customer change under the process set forth in Section 2 above; or (ii) a Supplier's Notice of Proposed Change Order under the process set forth in Section 4 above, then Customer may, in its sole discretion, issue to Supplier a Directive Letter that directs Supplier to proceed in accordance with the terms of the Directive Letter. Supplier shall fully comply with all Directive Letters. In the event of (i) above, Customer shall compensate Supplier for performing such work on a time and materials basis as set forth in Section 11 below. In the case of (ii) above, Supplier's sole recourse shall be to follow the processes set forth in the Resolution of Disputes section of this Schedule J.

6. Certification of Submissions

6.1. Supplier, under penalty of perjury, shall furnish and execute, contemporaneously with each submission above, a certification by Supplier and its subcontractors that:

6.1.1. The submission is made in good faith.

6.1.2. Supporting data are accurate and complete to the best of Supplier's and/or subcontractor's knowledge and belief; and

6.1.3. The adjustment to the Contract Price and/or Contract Time(s) requested accurately reflects the adjustment for which Supplier believes Customer is liable.

7. False Claims

7.1. Supplier further acknowledges and agrees that if it submits a false claim, on behalf of itself or a subcontractor or another party, Supplier, in addition to any sanctions contained in this Agreement, may be subject to civil penalties, damages, debarment, and criminal prosecution in accordance with applicable law(s). Supplier shall be liable to Customer and shall pay it for the actual costs incurred by Customer in investigating, analyzing, negotiating or resolving any claim for costs or damages submitted by the Supplier which is determined to be false or to have no basis in law or in fact.

8. Duty to Proceed

8.1. No dispute between Supplier and Customer, including but not limited to those relating to entitlement, cost or time associated with Supplier's Proposed Change Order shall interfere with the progress of the work. Supplier shall have the duty to diligently proceed with the work in accordance with Customer's instructions despite any dispute, including but not limited to those events where the Parties are in disagreement as to whether instructions from Customer constitute a change to the Agreement and justify adjustments to the Contract Price and/or Contract Time(s). Supplier's sole recourse in the event of a dispute will be to pursue its rights under the Resolution of Disputes Section of this Schedule J.

9. No Request for Relief after Final Payment

9.1. No request for relief shall be allowed if asserted after the issuance of final payment for the Services under this Agreement.

10. Burden of Proof

10.1. Supplier shall bear the burden of proof in establishing its entitlement to relief under this Schedule J, including but not limited to adjustments in the Contract Price and/or Contract Time(s).

11. Time and Materials Adjustments to the Contract Price

11.1. If Customer has issued a Directive Letter to Supplier to proceed with the work, then Supplier shall be paid for the costs as set forth herein associated with the work defined in the Directive Letter on a time and materials basis provided that such costs are: (i) reasonably and properly incurred by Supplier; (ii) reasonably documented; (iii) those costs that would not have been incurred but for the change in the work or, in the case of Proposed Change Order claims under Section 4 above, the events or circumstances for which Supplier is entitled to relief in accordance with the provisions of said Section 4 above.

11.1.1. Labor. The Cost of labor for design and engineering services, whether provided by Supplier or a subcontractor of the Supplier will equal the product of the Fully-Burdened Labor Rates as specified in Schedule D-2 of the Agreement multiplied by the number of hours actually expended by Supplier and approved by Customer during the period of time covered in the monthly invoice submitted by the Supplier.

11.1.2. Other Direct Costs. Supplier and its Subcontractors shall be entitled to the recovery of necessary expenses for other direct costs incurred in performing the work of a Change Order, provided that such costs are not included in the Supplier's or subcontractor's indirect costs or overhead rate. Cost for travel, meals and lodging shall be reimbursed in accordance with Article 3 of Schedule C. No overhead and profit multipliers will be allowed.

CLAIMS

1. Additional Provisions Relating to the Prosecution of Claims for Monetary Damages

1.1. Except as otherwise provided in this Schedule J, if Supplier claims or intends to claim compensation for any damage or loss sustained by reason of any act, neglect, fault or default of Customer, Supplier shall, within seven (7) calendar days after Supplier knows, or should have reasonably known, of such event or situation giving rise to the claim, submit to Customer a written "Notice of Claim." The Notice of Claim shall describe the general nature of the claim and the extent of the damage sustained.

1.2. Supplier shall, within twenty-one (21) calendar days after providing Customer with a Notice Claim, submit to Customer in writing a proposal that includes: (i) a description of the facts, circumstances and contractual basis for the relief sought, with sufficient specificity for Customer to assess the matter; and (ii) the cost data supporting any proposed lump sum adjustments to the Contract Price.

1.3. Within thirty (30) days of receipt of all such information and documentation, Customer shall advise Supplier of its decision on such requested claim; except that, where it is not reasonably practicable for Customer to render such decision in the thirty (30) day period, it shall, prior to the expiration of such period, advise the Supplier that it will require additional time and the approximate date upon which it expects to render such decision.

1.4. If Customer believes that Supplier's request is justified, in whole or in part, Customer shall advise Supplier and an appropriate Change Order shall be executed. If Customer disputes Supplier's request, and the Parties are unable to resolve the dispute, such dispute shall be resolved in accordance with the provisions of the Resolution of Disputes in this Schedule J.

1.5. Supplier's failure to provide the written statements in the manner and time required by this Section 1 shall constitute a conclusive presumption that no price or time adjustment, or other relief, is claimed or warranted for the event or situation giving rise to the relief, and Supplier waives its rights to seek relief for any such event or situation.

2. Certification of Submissions

2.1. Supplier, under penalty of perjury, shall furnish and execute, contemporaneously with each submission above, a certification by Supplier and its subcontractors that:

2.1.1. The submission is made in good faith.

2.1.2. Supporting data are accurate and complete to the best of Supplier's and/or subcontractor's knowledge and belief; and

2.1.3. The adjustment to the Contract Price requested accurately reflects the adjustment for which Supplier believes Customer is liable.

3. False Claims

3.1. Supplier further acknowledges and agrees that if it submits a false claim, on behalf of itself or a subcontractor or another party, Supplier, in addition to any sanctions contained in this Agreement, may be subject to civil penalties, damages, debarment, and criminal prosecution in accordance with applicable law(s). Supplier shall be liable to Customer and shall pay it for the actual costs incurred by Customer in investigating, analyzing, negotiating or resolving and claim for costs or damages submitted by the Supplier which is determined to be false or to have no basis in law or in fact.

4. Burden of Proof

4.1. Supplier shall bear the burden of proof in establishing its entitlement to relief under this Schedule J, including but not limited to adjustments in the Contract Price and/or Contract Time(s).

5. No Request for Relief after Final Payment

5.1. No request for relief shall be allowed if asserted after the issuance of final payment for the Services under this Agreement.

RESOLUTION OF DISPUTES

1. Request for Negotiations

1.1. 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 discussions, then:

1.1.1. 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).

1.1.2. Negotiations shall occur first between authorized representatives of the Supplier and the BES Project Team representing the Customer who play a supervisory role in the management of the Contract. 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").

1.1.3. 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.

1.2. 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 the following procedures outlined in this Exhibit J.

2. Governing Law

2.1. 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.

SCHEDULE K

Certifications

Supplier certifies, by and through its authorized representative, that to the best of its knowledge and belief that:

A. Supplier and each parent and/or affiliate of such Supplier and/or consultant, has not:

1. Been indicted or convicted in any jurisdiction.
2. Been suspended, debarred, found not responsible or otherwise disqualified from entering into contracts for failure to meet prequalification standards.
3. Had a contract terminated for breach of contract or for any cause related directly or indirectly to an indictment or conviction.
4. Changed its name and/or Employer Identification Number (taxpayer identification number) following its having been indicted, convicted, suspended, debarred or otherwise disqualified, or had a Contract terminated as more fully provided in (1), (2) and (3) above.
5. Ever used a name, trade name or abbreviated name, or an Employer Identification Number different from that in the applicable contract or agreement.
6. Been denied a contract for failure to provide the required security, including bid, payment or performance bonds or any alternative security deemed acceptable by the agency letting the Contract.
7. Failed to file any required tax returns or failed to pay any applicable federal, state or local taxes.
8. Had a lien imposed upon its property based on taxes owed and fines and penalties assessed.
9. Been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency, including an inspector general of a governmental agency or public authority.
10. Had any sanctions imposed as a result of a judicial or administrative proceeding with respect to any professional license held or with respect to any violation of a federal, state or local environmental law, rule or regulation.
11. Shared space, staff, or equipment with any business entity.

B. Furthermore,

1. Supplier and its subcontractors shall have obtained and maintain all necessary or required registrations, permits, authority, licenses and approvals required under Applicable Law, and have the expertise, qualifications, experience, competence, skills, know-how and capacity to perform the Services.

2. The Services will be performed by or under the supervision of persons who hold all necessary, valid licenses to practice in the State of New York and/or Maine as required as a part of this Agreement, by personnel who are skilled, experienced and competent in their respective trades or professions and who are professionally qualified to perform the Services in accordance with this Agreement.
3. The Supplier has familiarized itself with the requirements of the Agreement, including all Applicable Laws and Applicable Standards, and, consistent with best management practices, as defined in Article 35 of Schedule C, the Services can be performed in accordance with said requirements.
4. The Supplier has, in accordance with best management practice, as defined in Article 35 of Schedule C, examined the site(s) and surrounding locations, investigated and reviewed any provided geotechnical reports, ground, soil or site conditions reports, reports relating to utilities and other private records to familiarize itself with surface and subsurface conditions.
5. The Services included in this Agreement will comply with Applicable Law and Applicable Standards and will satisfy the requirements of the Contract Documents.
6. The Supplier is not in breach of any Applicable Laws or Applicable Standards that would have a material adverse effect on the Services.
7. The submission of proposal for this Project and/or the execution, delivery and performance of the Agreement and any other Project related document to which the Supplier is a party has been duly authorized by all necessary action of the Supplier; each person executing the Agreement and any other Project related document to which the Supplier is a party on the Supplier's behalf has been duly authorized to execute and deliver the same on the Supplier's behalf; and the Agreement and any other Project related document to which the Supplier is a party has been duly executed and delivered by the Supplier.
8. No funds have been paid or will be paid, by or on behalf of Supplier, to any person for influencing or attempting to influence an officer or employee of Customer in connection with the awarding of the agreement.
9. Supplier shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

[Signature Page Follows]

[Redacted]

[Redacted]

- Testing & Commissioning Services

[Redacted]

[Redacted]

Signature

Date: _____

Name and Title:

SCHEDULE L

AVANGRID Contractor Safety Guide



Avangrid Networks Contractor Safety Guide

ANHS-SOP-021

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[REDACTED] Rev. 3

August 2018 1

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- 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.

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 ISNetworld 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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Schedule L-1

AVANGRID Contractor Safety Requirements

[REDACTED] - Testing & Commissioning Services
[REDACTED] n_16-Jun-20
[REDACTED]
[REDACTED]



BES

AVANGRID'S CONTRACTOR SAFETY REQUIREMENTS – Kick-Off Meeting

Purpose

The purpose of this session is to ensure clear understanding of the expectations and practices that AVANGRID has for its contractors, subcontractors and agents in order to perform work at Company facilities, properties, designated work sites or construction sites.

Contractors must follow AVANGRID's requirements as well as their own rules that meet or exceed OSHA and other regulatory requirements.

The use and reference of these requirements will enable Company Contractors to share AVANGRID Networks' vision to be a world-class safety organization with a safe workplace.

References

The information for this session is based on:

- **ANHS-SOP-021** Avangrid Networks Contractor Safety Guide (External)
- **ANHS-SOP-020** Contractor Safety Management (Internal)

Contractor Responsibilities

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

- Contractors are responsible for their own safety compliance.
- Contractors shall at all times comply with: all federal, state, and local safety and health requirements; AVANGRID's Contractor Safety Guide, and its own safety procedures, policies, guidance, and/or work instructions and the Safety Plan.
- Contractors shall inform its employees, subcontractors, and agents of AVANGRID's Contractor Safety Guide prior to the commencement of any work, and ensure compliance.
- Contractors and subcontractors shall conduct a daily job brief meeting prior to the performance of any on-site work or services.

Contractor Responsibilities (Continued)

All BES Contractors, including also Contractor's subcontractors, must adhere to all requirements defined in the

AVANGRID Contractor Safety Guide
ANHS-SOP-021

Contractor Health and Safety Orientation

- The Health and Safety orientation is intended to serve as a resource in order to provide the Contractor with the AVANGRID safety requirements.
- **The orientation session is not intended to train the Contractor management, their employees or their subcontractors.**

All **contractors'** employees (field or management) and subcontractors will be required to complete the **BES on-boarding Contractor Health and Safety Orientation and the Environmental Orientation.** Without these orientations, no employee will be allowed to be on site.

ISNetworld

- Contractor safety begins with Procurement Process, all main contractors must be registered in ISNetworld.
- Contractor qualification is done through the ISNetworld verification grading.
- It shall be the Contractor's responsibility to keep the ISNetworld information updated during the execution of the project.
- Contractors shall have a passing grade of **71 points or more based** on various safety measures, otherwise, a Contractor Safety Grade Variance Approval Request Process shall be completed, and the process must be approved by AVANGRID Projects VP.

Site Safety Plan

- Contractors shall provide a **Project-Specific Safety Plan** prior to the start of construction of the project covering the contract scope of works and covering **each project activity**.
- Contractor shall communicate the **Project-Specific Safety Plan** to all involved employees. Such communication shall be documented and signed by all employees on site.
- For multi-employer work sites, the **Prime Contractor** is responsible for all their employees and subcontractors. The **Project-Specific Safety Plan** shall clearly state this responsibility.

Site Safety Plan (Continued)

At a minimum, the **Project-Specific Safety Plan** shall include the following elements:

- **Roles and responsibilities:** The plan shall identify who will be responsible for the project oversight and their qualifications.
- **Scope of Work:** Briefly state the scope of work as provided by AVANGRID. The plan must specifically address the project or contracted services requested by the Company.
- **Task and hazard identification and risk assessment of the hazards:** The Contractor shall identify **all significant tasks** and the anticipated hazards (JHA/JSA/Pre-Task Analysis). For each identified hazard, the Contractor shall specify measures that will be taken to mitigate these hazards (**Hazard Mitigation Procedures and Work Methods**)
- **Incident Analysis, Reporting and Investigation:** Follow the requirements referenced in this document.
- **Compliance Monitoring:** Explain how you will ensure that both your employees and subcontractors will achieve safety compliance.

Site Safety Plan (Continued)

The **Project-Specific Safety Plan** shall also include:

- Safety rules and regulations
- Safety inspections and frequency (facility, equipment, PPE, etc.)
- Safety training required, including safety orientation.
- Safety meetings (regular safety meetings, tailboard meetings, etc.)
- Safety performance and monthly report (shall be submitted to AVANGRID)
- Personal Protective Equipment (PPE)
- Housekeeping
- Snow removal (AVANGRID [SOP.P.E.07.04 Contractor Responsibilities for Snow Removal](#))
- Fire prevention
- Site Specific Emergency Response Plan
- Spill release control and response (spill containments, spill kits)

Site Safety Plan (Continued)

The **Project-Specific Safety Plan** shall also include (Continued):

- Equipment safe operation
- Equipment maintenance
- **Work safety procedures** (excavation, electrical safety, ladder safety, scaffolding safety, drop zone... and all applicable work safety procedures for the activities to be performed)
- Material handling
- Hazardous materials storage
- Hazard Communication/Global Harmonized System (GHS)
- Security management
- Alcohol, drugs and firearms
- Smoking
- COVID-19 safety guidance
- **And other safety requirements based on the Scope of the Project and AVANGRID Contractor Safety Guide.**

COVID-19

- **Contractor shall ensure its employees and subcontractors adhere to the distancing rules such as (but not limited to):**
 - 6 feet of personal separation
 - Handle own tools – do not share
 - Maintain continuity of operators on equipment
 - Wear face covering
 - Wash hands frequently. If soap and water are not readily available, use a hand sanitizer
 - Commute using the one person per vehicle rule
 - Tailboard must ask each employee daily if they feel well/have any COVID-19 symptoms or if anyone is returning from travel to states that have a significant degree of community-wide spread of COVID-19
 - Do not pass around the tailboard signature page, one person signs for all witnesses
 - **All meetings/tailboards discussions should be done outside (maintain 6' separation)** – Consider other meeting arrangements such as tents as well as other communication equipment to facilitate social distancing while conducting meetings

The current State and CDC Guidance shall be followed!

COVID-19 (Continued)

- **Contractors shall establish mechanisms for ensuring workplace safety:**
 - **Daily Wellness Check-In (questionnaire, temperature check, etc.) –** Contractors shall ensure its employees and subcontractors entering the project site complete a Daily Wellness Check-In prior to reporting to the workplace.
 - **Follow the travel advisory for anyone returning from travel to states that have a significant degree of community-wide spread of COVID-19 -** Based upon Governor Cuomo's Executive Order 205, issued on June 25, 2020, the Contractor shall verify if its employees have traveled from within one of the designated states with significant community spread <https://coronavirus.health.ny.gov/covid-19-travel-advisory>. If that is the case, they must quarantine upon arrival to New York for 14 days from the last travel within such designated state, if on the date of arrival to New York State that state met the criteria for requiring such quarantine. **A negative Covid-19 test or the 14-day quarantine will be required before return to work.**
 - ü A travel enforcement operation will commence at airports across the state to help ensure travelers are following the state's quarantine restrictions. All out-of-state travelers from designated states must complete the Traveler Health Form upon entering New York.
 - ü Travelers coming to New York from designated states through other means of transport, including trains and cars, must fill out the form online: <https://forms.ny.gov/s3/Welcome-to-New-York-State-Traveler-Health-Form>

The current State and CDC Guidance shall be followed!

COVID-19 (Continued)

- **Contractors shall establish mechanisms for ensuring workplace safety:**
 - **Rules related to potential exposure and self-isolation - NOT** coming to work if sick or has been exposed to someone with COVID-19 or recent travel outside the US, or to one or more of currently restricted states, as defined by the NYS/DOH. These rules shall be discussed and reinforced during the tailboard meetings.
 - **Daily cleaning and disinfection procedures - Contractors** shall ensure a daily deep cleaning of the relevant workplace and common areas, including trailer office, door handles, handrails, etc.

The current State and CDC Guidance shall be followed!

COVID-19 (Continued)

- **Contractors shall establish mechanisms for ensuring workplace safety (Continued):**
 - **Trailer office capacity shall be carefully managed** - The number of personnel allowed in the office shall be posted outside of the trailer.
 - **Trailer office workstations** - Workstation seating shall be configured to ensure a 6-foot or greater physical distance.
 - **Visual markers indicating 6-foot spacing shall be installed on floors to support physical distancing in high traffic areas (i.e. trailer office, lunch area, etc.)** - If an area does not have a visual marker, employees shall use their best judgment and be respectful of other employees by maintaining physical distance.

The current State and CDC Guidance shall be followed!

COVID-19 (Continued)

- **Contractors shall establish mechanisms for ensuring workplace safety (Continued):**
 - **Signs shall be prominent in common areas providing clear and graphical explanation of the guidelines and requirements at the project site - Good Hygiene Practices; Physical Distancing & Face Covering Requirements; Clear Desk Procedure; Daily Wellness Check In; Lunch Area Rules; State-Specific Signage as Required.**
 - **Preventive materials and equipment shall be provided and managed. The inventory shall include, but not limited to: Face Coverings; N95 Respirators (prior work task approval by AVANGRID); Gloves; Eye Protection; Disinfecting Products, Hand Sanitizer; and Wash Sink Basin near portable toilet facilities (highly recommended).**

The current State and CDC Guidance shall be followed!

COVID-19 (Continued)

- **Contractors shall establish mechanisms for ensuring workplace safety (Continued):**
 - **All individuals must maintain a 6-foot distance from others while performing a task.** When not possible, AVANGRID requires previous evaluation of tasks supported with documentation and the spreadsheet of exception **“Tasks that Cannot Adhere to CDC Guidelines”** shall be sent to AVANGRID SHEQ Manager Sandy Bensley: SBensley@nyseg.com for the corresponding revision and approval. **All mitigation efforts and/or possibilities will need to be included in the specific work plan.**
 - **Visitors shall follow the same protocols as employees, including social distancing and face covering requirements when onsite.**

All individuals visiting AVANGRID buildings are required to be approved and comply with AVANGRID entrance protocols, including temperature checks, prior to entry. While in an AVANGRID workplace, visitors are also expected to comply with face covering and physical distancing requirements.



The current State and CDC Guidance shall be followed!

Worker Qualification Assurance

- In order to meet AVANGRID safety requirements, the Contractor must describe in their Project-Specific Safety Plan 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.

AVANGRID reserves the right to verify Contractor competency.

Letter of Assurance

- The Contractor shall certify in writing that:
 - ü The Contractor has been informed of Company safety requirements;
 - ü Employees and subcontractors have the appropriate qualifications to perform the work; and
 - ü The Contractor agrees to comply with all applicable safety requirements.
- The “**Letter of Assurance**”, shall be printed on the Contractor’s letterhead, signed by a principal of the Contractor, and delivered to the Contractor’s AVANGRID contact, or participants will upload this letter into ISNetworld to meet this requirement.

Letter of Assurance (Continued)

COMPANY LETTERHEAD

ADDRESS AND PHONE NUMBERS

Month / Day / Year

To: (AVANGRID Representative)

Address.....

.....

Re: (AVANGRID Project Name)

Subject: Contractor Letter of Assurance

Greetings,

(Contractor Name) certifies with this Letter of Assurance that a management representative has attended an Orientation conducted by an AVANGRID Representative. It is understood that this Orientation is intended to highlight and give a high-level awareness of the AVANGRID requirements. We agree to communicate these requirements to our employees and subcontractors and will comply with the requirements.


We certify that employees and subcontractors meet all federal, state, local laws/regulations and all employees have the proper training that can demonstrate compliance.

Regards,

Incident Reporting

- **All Contractors** are required to **verbally report** any incident, including near misses, no matter how insignificant, to the Project Manager, Field Construction Manager or any other AVANGRID's representative according the **emergency contact list** order, until receive confirmation that the incident has been notified. **The incident shall be reported as soon as it is safe to do so.**

Each employee or contractor that signs in at the project site is required to check in with the FCM prior to departing for the day and verify that they have not had an incident that could later develop into an injury.


Contractor's Logo

EMERGENCY CONTACT LIST

1. Provide emergency response, if necessary. Call 911 immediately.
2. All accidents, injuries and incidents, including near misses, no matter how insignificant, shall be verbally reported to the **Project Manager, Field Construction Manager or any other Avangrid's representative according the contact list order**, until receive confirmation that the incident has been notified. The incident shall be reported immediately after the situation has been stabilized.
3. The telephone reporting should include, at a minimum: name of company and person reporting, brief description, date and time of the incident, location, immediate actions that were taken, possible causes of incident, additional consequences caused by the incident (if applicable), project name.
4. The contractor representative shall then fill out the Avangrid's Contractor Incident Report Form (ANHS-FOR-020D), or equivalent, and deliver it to the Avangrid's representative **within 24 hours of the incident occurrence**. An incident investigation shall be conducted by the Contractor and submitted to Avangrid's representative **within 5 days of each occurrence**.

AVANGRID'S BES GROUP			
JOB POSITION	NAME	OFFICE NUMBER	CELLULAR
BES Project Manager			
BES Field Construction Manager			
BES Construction Manager			
BES Program Construction Manager	Eric Frazer	585.724.8665 207.629.2279	716.983.6764
BES Business Unit Manager			
BES Safety Specialist	Joselis Hernandez	585.724.8406	585.729.5262
BES Permitting Manager	Ben Virts	585.410.1203
BES Permitting Manager	Jacqueline Bruce	585.771.2679	860.748.8745
BES Quality Specialist	Kimberly Smith	585.724.8713	585.775.1635
AVANGRID'S SHEQ DEPARTMENT			
Quality Manager Projects	Sandy Bensley	585.484.4719	607.727.3256
SHEQ/RG&E Projects	Robert Hebing	585.771.2391
SHEQ/RG&E Projects	Peter Staples	585.771.4430
SHEQ/NYSEG Projects	Mark Smith	585.484.6970	203.788.1592
AVANGRID'S CORPORATE EH&S LEADS			
RG&E EH&S Lead Analyst	Ergin Akbas	585.953.6199


Incident Reporting (Continued)

- **Telephone reporting should include, at a minimum:**
 1. Name of company and person reporting;
 2. A brief description of the incident;
 3. Date and time of incident;
 4. Location of incident (Identification of company facilities involved or other location);
 5. Immediate actions that were taken;
 6. Possible causes of incident;
 7. Additional consequences caused by the incident (environmental, any damage, theft, fire, loss of service), if applicable;
 8. Project name

Incident Reporting (Continued)

- A written incident report must be submitted to the AVANGRID's representative **within 24 hours of occurrence** using AVANGRID's form (ANHS-FOR-020D), or equivalent.

Contractors are required to ensure its employees, subcontractors, and agents are aware of who to contact in case of an emergency and AVANGRID's requirements for incident reporting.

 Contractor Incident Report			
Avangrid Networks Company:		Division:	
Contractor:		Incident Date:	
Incident Type: <input type="checkbox"/> Lost Time Injury <input type="checkbox"/> Minor/First Aid Injury <input type="checkbox"/> Preventable MVA <input type="checkbox"/> Property Damage <input type="checkbox"/> No Lost Time Injury <input type="checkbox"/> Near Miss <input type="checkbox"/> Non-Preventable MVA <input type="checkbox"/> Other Incident			
Contract Employee Name:		Job Title:	
Location of Incident (address or other descriptor):			
<u>Injury:</u> detail type of injury/illness (ie, strain, laceration), body part, and treatment (including if prescription obtained). <u>Motor Vehicle Accident:</u> detail damage to the vehicle and/or other property. <u>Property Damage:</u> detail damage.			
<u>Incident Information:</u> detail type of work being performed, what was happening at the time of the incident, the cause of the incident, if known, any witnesses, any involvement from law enforcement or medical personnel.			
Note: the Avangrid Networks Project Representative shall submit this form to the local Safety Representative, Health & Safety (AvangridNetworksHealthSafety@Avangrid.com) and Claims (AvangridClaims@Avangrid.com)			
ANHS-FOR-020D		April 2017	Page 1 of 1
<i>Avangrid Networks Proprietary Information. This document is uncontrolled unless viewed online; validate before use.</i>			

Incident Investigation

- Contractors shall investigate all accidents, injuries and incidents, including near misses. A written report shall be generated and submitted to AVANGRID's Representative **within 5 days of each occurrence**.
- The investigation report shall identify:
 - ü Contributing factors relating to the incident;
 - ü the corrective actions that will be taken to prevent reoccurrence;
 - ü the due date for such actions;
 - ü the responsible person for each of them;
 - ü pictures of the equipment, materials involved, etc.

The contractor shall notify the AVANGRID's representative when any action items have been completed.

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 AVANGRID (**within 24 hours of discovery**) of such non-compliance, and take all appropriate action to remedy such non-compliance to the AVANGRID's satisfaction.

Site Specific Safety Requirements

Contractors shall meet the following requirements at the project site:

- **Site Specific Emergency Action Plan:** This plan shall be available and discussed during the tailboard meetings and whenever a new employee arrives on site.
- **Postings visible in the job trailer or site vehicle:**
 - ü Project Site Map
 - ü Emergency Route Map
 - ü Assembly Points
 - ü Emergency Contact List for all Key Personnel
 - ü Site Specific Emergency Action Plan
 - ü Nearest Clinic & Hospital
 - ü AVANGRID Incident Notification Flowchart
 - ü AVANGRID Contractor Spill Cards [ESOP-IUSA.021 Spill Management and Response for Contractors rev 0.pdf](#)
 - ü Safety Data Sheets (SDSs)
 - ü Regulatory Postings - OSHA act; Right to know; Wage Act

Site Specific Safety Requirements

- **Signages:**
 - ü Active Construction - Authorized personnel only
 - ü Entrance Signage - All visitors must sign in here with FCM
 - ü “Danger”, “Caution” Signage - Any areas restricted to entry by authorized persons
 - ü Overhead Hazard Signs
 - ü Detour Signage - Whether for vehicular or pedestrian traffic
 - ü COVID Signage - Number of personnel per trailer/control house
- **Site orientation for employees and visitors:** Contractors shall provide a safety orientation to all its employees and visitors. Records shall be kept and available at the work site for inspection.
- **Tailboard meetings:** Contractors shall conduct a job briefing with all employees involved prior to the start of work and ensures the site-specific hazards associated with the work to be performed are communicated. The job briefing shall be documented on an approved “Tailboard” Form and signed by each employee involved. Each contractor crew shall conduct these job safety briefs. The job briefings shall be available at the work site for inspection.

Site Specific Safety Requirements (Continued)

- **Personal Protective Equipment:** Proper PPE will be required to be worn by the contractor's employees and their subcontractors' employees. FR rated clothing is required on all live substation sites regardless of the work activity being undertaken. FR rated clothing will not be required during the in-ground construction activities if the site is not live. During the above-ground construction, all personnel must wear FR rated clothing to access the substation regardless of whether the site is live or not.
- **Fire extinguishers:** Contractors shall ensure that fire extinguishers are readily available and monthly inspected. A fire extinguisher sign to indicate location and an inspection tag are required. In existing structures and construction site trailers, fire extinguishers must be wall mounted no higher than 4 feet above floor.
- **First aid and Blood Borne Pathogens kits:** At a minimum, contractors shall ensure that a **first-aid kit** and **blood-borne pathogens kit** are available for any possible injuries. Contractors shall ensure that first aid kits are maintained and annually inspected. A first aid kit sign to indicate location and an inspection tag are required.

Site Specific Safety Requirements (Continued)

- **Safety Data Sheets:** Contractors shall ensure that an inventory of all hazardous materials brought on site is maintained. For all hazardous chemical, the SDS shall be readily available in print, or online.
- **Spill kits and Containment:** Contractors shall ensure spill kit materials and containment on site. It must be sized and adequate to respond to any potential spills based on the scope of work, which may include oil and/or chemical spill kits:
 - Oil spill kits are required in vehicles, and in control houses or other structures if oil filled equipment is present
 - Battery acid spill kits are required if there are lead acid battery banks present in control houses or other structures
 - NiCad battery spill kits are required if there are NiCad battery banks present in control houses or other structures
- **Housekeeping:** Contractors shall ensure that housekeeping rules are followed at the worksites. The job areas shall be maintained in a clean and orderly condition.
- **Snow removal:** The Prime Contractor shall be responsible for snowplowing, snow removal, and maintaining a safe and operational project site during adverse winter weather events, as described in the SOP.P.E.07.04 Contractor Responsibility for Snow Removal.

Site Specific Safety Requirements (Continued)

- **Equipment and tools:** Contractors shall ensure all equipment and tools used for the project are regular inspected and maintained to ensure good working conditions.
- **Illumination:** Whenever natural light is insufficient to adequately illuminate the work area, artificial illumination shall be provided by contractors to enable the employee to perform the work safely.
- **Toilets and facilities:** In accordance with the specifications of the safety standards in force, contractors shall provide on-site toilets, changing rooms, etc. according to the number of employees working on site. Contractors shall ensure that these facilities are kept suitably clean and tidy at all times.
- **Traffic control:** It shall be contractor's responsibility to establish the appropriate traffic control measures for construction vehicles entering and leaving the job site. The following shall be included in the traffic control provisions: signage, flaggers, permitting, and plans required.
- **Substation entry permit:** All contractor employees (field or management) and subcontractors that will work in a Substation will be required to complete the Substation Entry training.

Site Specific Safety Requirements (Continued)

- **SHEQ folders:** Contractors shall maintain up-to-date on-site Safety, Health, Environmental and Quality folders “SHEQ Folders”, which must contain all required forms, records, reports and support documentation associated with the project. The folders shall be available for inspection by AVANGRID.
- **Other applicable requirements according to the scope of work.**

The **Project-Specific Safety Plan** will be subject to evaluation by AVANGRID routine visits, compliance assessments, safety inspections and observations to ensure its compliance.

Questions

**ANY
QUESTIONS
OR
COMMENTS?**



SCHEDULE M

Clarifications

Big Tree - T&C-Technical Clarifications - [REDACTED]				Bidder: [REDACTED]
No	Clarification	Reference	AVANGRID Response	[REDACTED] Response
1	[REDACTED] proposal is contingent on successfully negotiating mutually agreeable terms and conditions.	9.0 Assumptions and Clarifications	Accepted	Okay
2	[REDACTED] takes exception to Liquidated Damages but is willing to negotiate to an agreeable set of terms.	9.0 Assumptions and Clarifications	Terms and conditions will be negotiated and agreed upon	Okay
3	[REDACTED] assumes that the outage or construction sequence specific construction activities will be mechanically complete including all terminations upon mobilization as well as continuous progression without delay. [REDACTED] does not expect to complete testing while construction of the outage or sequence scope is ongoing.	9.0 Assumptions and Clarifications	Accepted	Okay
4	[REDACTED] assumes that control cable meggering will be completed by others.	9.0 Assumptions and Clarifications	Accepted	Okay
5	[REDACTED] assumes that all high voltage electrical equipment testing (Breakers, MODs, transformers, PTs, Station Service, underground HV cables, etc.), battery bank & charger testing, and ground grid testing will be performed by others and test results will be provided to [REDACTED] upon mobilization.	9.0 Assumptions and Clarifications	Accepted	Okay
6	Proposal is based on the RFP documentation received. Any additional scope items/quantity increases will be assessed and may result in additional costs.	9.0 Assumptions and Clarifications	Accepted	Okay
7	This proposal is based on a work schedule of five days and forty to fifty hours per week.	9.0 Assumptions and Clarifications	Accepted, Site Access will be 7AM- 5PM (M-F) available as per Substation scope of work clause 5.1.	Okay
8	Risks will be assessed by [REDACTED] and CMP on daily/weekly basis and discussed. Any additional work, due to change in the project schedule will be discussed and processed via Change order.	9.0 Assumptions and Clarifications	Accepted	Okay
9	This proposal is based on the Construction Sequence and schedule documentation provided with the RFP. Any significant deviations of the sequence, number of mobilizations or step durations may result in an increased cost.	9.0 Assumptions and Clarifications	Accepted	Okay
10	The scope includes "Testing and Commissioning" only, no "Component Testing" is included as per RFP documents. Testing of any other equipment not within this scope as defined in the Avangrid Testing and Commissioning Philosophy documentation, if required, will be handled via change order management process.	9.0 Assumptions and Clarifications	Accepted	Okay

No	Clarification	Reference	AVANGRID Response	Response
12	Estimate assumes all automation and protective relay settings (SP&C 3-7) are developed by others and will be loaded on-site by the SP&C 3-7 engineer, as described in the SP&C 3-7 RFP for this project. The SP&C 3-7 engineer will perform network, SCU, and PDC configuration on-site and will turn over the integration platform after verifying that all devices are communicating as-designed.	9.0 Assumptions and Clarifications	Same response than item 11	Same response as item 11
13	After the SP&C 3-7 engineer has performed on-site configuration of the entire system and has turned the system over to [REDACTED] [REDACTED] will manage all device configurations throughout the remainder of the project. The SP&C 3-7 engineer will be responsible for providing Settings Change Notices (SCN) as issues are identified by [REDACTED] [REDACTED] will implement changes associated with each SCN into each device.	9.0 Assumptions and Clarifications	Same response than item 11	Same response as item 11
14	It is assumed that on-site scope by the SP&C 3-7 engineer will be performed according to the needs of the project schedule and will not cause a delay to commissioning progress.	9.0 Assumptions and Clarifications	Noted	Okay
15	It is assumed that SP&C 3-7 IFU settings will be provided to [REDACTED] at least 4 weeks prior to mobilization.	9.0 Assumptions and Clarifications	Noted	Okay
16	Estimate assumes all IFC drawings developed by others are available upon [REDACTED] T&C mobilization.	9.0 Assumptions and Clarifications	Noted	Okay
17	Estimate does not include re-testing of equipment due to damage, failure or manufacturer defects.	9.0 Assumptions and Clarifications	Accepted	Okay
18	[REDACTED] assumes that temporary facilities (site trailer, portable toilet, temporary power, etc.) and man-lifts (if needed) will be provided by others.	9.0 Assumptions and Clarifications	Accepted	Okay
19	The as-built drawings provided at the conclusion of the project will be accurate for the work performed by our team. The accuracy of the CONTRACTOR'S updates will not be the responsibility of [REDACTED] unless our testing and commissioning team has confirmed the comments as part of our work	9.0 Assumptions and Clarifications	Accepted	Okay

No	Clarification	Reference	AVANGRID Response	Response
21	<p>Avangrid expects the contractor to perform the following activities in a managing and directing reole, not only as a support role</p> <ul style="list-style-type: none"> • Determine size and voltage of Generator needed to run the test • Direct and manage the resources to perform the test • Create a Test Plan and submit to T&C Department for approval • Create testing forms and record all test values • Direct and manage the resources to restore conditions after the test <p>Rental of the generator needed to perform the test will be out of the scope of the T&C Contractor</p>	Bid form, Transformer Short circuit Test. Tab "Bid form-Big Tree" row 53		Okay
22	Markup terms and conditions has not been provided with the Bid documents. Provide the marked up terms and conditions.			Legal provided markups to Spring 2020 MSA provided in RFP package
23	Proposal shows Seth Vincent. We understand Seth has left the company, please update proposal	Proposal page 16		Andrew Roy will be replacing Seth Vincent as management oversight.
24	Organization chart only lists one LCE and three CE's. We believe that will not be sufficient to commission the three projects. Please provide an Org chart per project. Please provide more information about the technicians that will be performing the work	Proposal page 16		It is understanding that each of the 3 projects will be performed one after another. Should additional resources end up being required due to project schedule conflicts or overlaps, can provide supplemental resources. Three resumes have been added to the organization chart as supplemental CE resources.

LIST OF RECEIVED OFFERS



[Redacted text block consisting of three horizontal bars]