

STATEMENT OF PROJECT OBJECTIVES (SOPO)

Prime: The Confederated Tribes of Warm Springs (CTWS)

Project Title: Confederated Tribes of Warm Springs (CTWS) and Portland General Electric (PGE) Regional 500kV Transmission Innovative Partnership

A. OBJECTIVES

The Confederated Tribes of Warm Springs (CTWS) and Portland General Electric (PGE) have forged an innovative, transformational, and mutually beneficial transmission partnership while advancing Tribal leadership in the energy industry. Together, they will build a bridge between PGE customers and the immense, but islanded, renewable generation potential of the Warm Springs Reservation – up to 1800 MW of carbon-free solar resources – 87 miles to the east. The new transmission capacity will also enable PGE’s customers to access renewable resources from other states, regions and markets via a more robust connection with the larger transmission network in the West.

B. SCOPE OF WORK

Under the CTWS/PGE Regional 500kV Transmission Innovative Partnership project, the project team will:

- Decommission the existing Bethel – Round Butte 230 kV transmission line and rebuild the corridor as a new 500 kV transmission line. Sections of the existing line will be evaluated to remain in service to use for connecting new generation resources.
- Install new high-capacity fiber-optic cables along the entire transmission route to provide enhanced system protection, regional communications resiliency for transmission system protection and operations, and enhanced broadband services to underserved areas with our internet partners.
- Construct new 500 kV substation facilities at the termination points for interconnection into the transmission network, including future space for potential Tribal solar interconnection.
- Reinforce existing transmission facilities at both termination points to allow greater energy transfer with the new transmission line.

C. TASKS TO BE PERFORMED

Budget Period 1

Task 0.0: Project Management and Planning

Subtask 0.1 – Project Management Plan (PMP):

Within 30 days of award, PGE will submit a Project Management Plan (PMP) to the designated Federal Project Officer (FPO). The Recipient shall not proceed beyond Task 1.0 until the PMP has been accepted by the FPO.

Subtask 0.2: National Environmental Policy Act (NEPA) Compliance

As required, the Recipient shall provide the documentation necessary for NEPA compliance.

Subtask 0.3: Cybersecurity Plan (CSP)

The CSP shall be revised and resubmitted as often as necessary, during the course of the project, to capture any major/significant changes.

Subtask 0.4: Continuation Briefing(s):

The Recipient will brief DOE on roughly an annual basis to explain the plans, progress

and results of the technical effort. The briefing shall also describe performance relative to project success criteria, milestones, and the Go/No-Go Decision point that are documented in the Project Management Plan (PMP).

Task 1.0 – Project Execution Planning (Budget Period 1)

Subtask 1.1 – Project Kick Off: PGE and CTWS Project Manager's facilitate a kick off meeting with the project team and stakeholders.

Subtask 1.2 – Preliminary Study: Develop initial substation locations and general/future general layouts and one-line diagrams. Initiate line routing study to determine termination point on West end. Initiate environmental studies required for construction in the national forest and on reservation lands. Contract for comprehensive LiDAR study along proposed route.

Subtask 1.3 – Permitting Research: Research required permitting agencies for applicability, NEPA, FSEC, CPCN, National Forests.

Subtask 1.4 – Update Scope: Revise project scope including schedule with results from preliminary engineering and permitting study.

Subtask 1.5 – Revise Project Budget: Update project budget based on updated scope.

Subtask 1.6 – Implement OE Engineering Services: Develop RFP documentation for engineering services, conduct qualifications review of potential technical firms, issue RFP and select engineering partner.

Task 2.0 – Engineering Permitting (Budget Period 1-4)

Subtask 2.1 – WECC Path Rating Process: Conducting studies with regional players to understand the increase in transmission path capacity resulting from the upgrade of the line, and any stability implications resulting from increased loads over the Cascades.

Subtask 2.2 – 30% Engineering Design: The primary purpose of this milestone is to support permitting efforts which will be initiated after the 30% design is complete. The 30% will commence after the routing study is completed and will include consideration for environmental constraints determined in the Environmental Study.

a. PGE team will emphasize preliminary engineering of access roads, structure work areas and pulling sites. Preliminary design of roads and work areas will be field reviewed with construction personnel for general alignment.

b. LiDAR survey will be taken during preliminary engineering phase to support final transmission design.

c. Geotechnical investigation will likely occur after the 30% is complete and structure locations are fixed.

Subtask 2.3 – Geotechnical Investigations: Upon completion of preliminary design determine boring locations and complete field investigation activities.

Subtask 2.4 – 60% Engineering Design: Upon completion of the 30%, field reviews and receipt of known environmental constraints, the design will be updated to reduce overall Project impacts. After completion of the 60% design, the transmission long lead material procurement may occur.

Subtask 2.5 – Conduct Procurement: Conduct procurement activities for non-long lead and long lead material.

Subtask 2.6 – 90% Engineering Design: Focus on construction drawing development and resolution of outstanding items.

Subtask 2.7 – Substation Design: 15% design - Substation Engineering will prepare 15% design review drawings, specifications and other project documents in accordance with design procedures. These include geotechnical investigation, thermal resistivity measurement of soil, topographic or ALTA survey. Substation Engineering will prepare 30% design review drawings, specifications and other project documents in accordance with design procedures. These include grading plan and details, foundation plan and details, fence plan and details, yard surfacing plan and details, preliminary calculations, structure drawings, fire wall design (preliminary), oil containment plan and details, conduit plan, conduit and vaults details, grounding plan, details and calculations, plan views, all elevations and section views, bus connection details, lighting plan, list of materials (major equipment only), rigid bus calculations, all schematics, AC/DC panelboard wiring diagrams, list of nameplates, and AC and DC station service calculations. Substation Engineering will prepare the 90% design and review detailed Issued For Review (IFR) design drawings, specifications and other project documents in accordance with design approval procedures. These include list of materials, rebar schedule, anchor bolt schedule, all calculations and reports, structure calculations, oil containment calculations, conduit schedule, conduit fill calculations, wiring diagrams, demo drawings, and cable schedule.

Subtask 2.8 – Substation Property Acquisition: Upon completion of the preliminary study, the PGE property group will acquire any property needed to build a new substation and property needed to upgrade existing substations.

Subtask 2.9 – Procure Substation Materials: This step addresses all materials remaining to be ordered. Substation Engineer will submit the order to supply chain for final material order.

Subtask 2.10 – Certificate of Public Convenience and Necessity (CPCN): The PGE team plans to acquire a Certificate of Public Convenience and Necessity to align with regulatory requirements.

Task 3.0 – Construction Planning (Budget Period 4)

Subtask 3.1 – Run RFP process to procure construction services: Integrate final Engineering documents, permitting requirements, standard specifications, and other supporting documents into an RFP package. Develop RFP documentation for construction services.

Subtask 3.2 – Evaluate construction RFP related responses: Evaluate bidders based on commercial and technical qualifications to identify the most qualified bidder.

Subtask 3.3 – Award Contract: Award contract to the successful bidder/s.

Task 4.0 – Construction (Budget Period 5-7)

Subtask 4.1 – Mobilization: Contractor facilitates mobilization of equipment and support facilities. Implement security measures as required. Initiate receipt of materials.

Subtask 4.2,4.3 – Tree Trimming, Construct Access Roads : Conduct tree trimming and landscaping (selective clearing and grubbing) activities in order to support construction activities. The following construction tasks will be to perform access road and other civil work to support construction activities. This work will occur within the environmental and permitting constraints.

Subtask 4.4 – Transmission Construction: Begin with clearing activities, followed by wreckout of existing transmission line, foundation construction, structure assembly and erection, and conductor and fiber installation. Given the long linear nature of the transmission project, there

will be construction activities overlapping at various locations along the corridor and multiple crews will be working on project activities.

Subtask 4.5 – Substation Construction: Substation construction includes, but is not limited to, outage sequencing, demolition, foundation installation, conduit installation, ground grid installation, steel erection, installation of equipment and major materials, fence installation, and remote end work at various substations.

Subtask 4.6 – Fiber Installation: The contractor will stage equipment at the permitting pulling locations and install the fiber as per the transmission design. This effort will include fiber splicing.

Subtask 4.7 – Final Inspection: PGE and the contractor to validate completion and ensure requirements have been met. A punch list will be prepared listing any outstanding items requiring completion or correction.

Subtask 4.8 – Pre-energization testing: Prior to energization, the Contractor and PGE will inspect the transmission line to ensure the installation meets design requirements. An end-to-end phasing check will be performed, and testing will be completed for the transmission line and communications fiber.

Subtask 4.9 – Energization of the new transmission line: Conduct transmission and substation energization in parallel.

Task 5.0 – Project Closeout (Budget Period 7)

Subtask 5.1 – Restoration: Contractor will restore any temporary pads, access roads, or mitigation areas. PGE will inspect construction area to validate restoration is complete and accepted.

Subtask 5.2 – Conduct final inspection: A final inspection will be conducted by PGE to validate completion and ensure requirements have been met. A final punch list identifying any outstanding items required to be completed or corrected will be completed.

Subtask 5.3 – Construction demobilization: Contractor to demobilize from the site; removes equipment and support facilities, remove non-permanent items as required, and performs site cleanup.

Subtask 5.4 – Close permits: Ensure permits are closed out (as required).

Task 6.0 – Community Benefits Delivery (All Budget Periods)

Subtask 6.1 – Partner with Community Organizations: Partner with a local community organization, PDXO, that operates within CTWS' service territory, to conduct in-depth community outreach and engagement. Define roles and responsibilities, and further streamline the list of community stakeholders intended for engagement.

Subtask 6.2 – Conduct community outreach and workshops: Primary purpose of this task is inclusion of disadvantaged communities to ensure voices are centered across all project phases, including at the inception. PDXO will perform community outreaches and workshops to inform about the project and take community input into permitting and environmental aspects of the project. PGE will be conducting meetings with labor unions to discuss project deployment and deliver tailored training programs to the union workforce.

Subtask 6.3 – Review Trainings: Review existing required harassment, anti-discrimination, and corporate trainings to identify additional areas for training to support worksite culture.

Subtask 6.4 – Create Workforce Opportunities: Work with the clean energy workforce advisory group to create workforce development opportunities for students from underrepresented communities.

Subtask 6.5 – Track and report Justice40 benefits: Use SMART metrics to track and report on Justice40 benefits discussed in the Community Benefits Plan.

D. DELIVERABLES

		BP1				BP2				BP3				BP4				BP5				BP6				BP7					
Task	Sub-Task	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1: Project Execution Planning																															
1.1	Project Kick off	M1.1																													
1.2	Preliminary studies			M1.2																											
1.3	Permitting analysis																														
1.2	Scope refinements																														
1.2	Budget refinements			M1.3																											
1.4	Select engineering partner				G1.1																										
2: Engineering Permitting																															
2.1	WECC rating process																														
2.2	30% Engineering design								M2.1																						
2.3	Geotechnical investigation																														
2.4	60% Engineering design														M2.2																
2.5	Equipment procurement														M2.7																
2.6	90% Engineering design														M2.3																
2.7	Substation design								M2.4,M2.5,M2.6																						
2.8	Permtting & Easements															G2.1															
2.9	Procurement - Substation								M2.7																						
2.1	Acquire certifications																														
3: Construction Planning																															
3.1	Run RFP process														M3.1																
3.2	Evaluate bidders															M3.2															
3.2	Award contract															M3.3, G3.1															
4: Construction																															
4.1	Mobilization																M4.1														
4.2	Tree trimming																	M4.2													
4.3	Access Roads																		M4.2												
4.2	Tranmission line upgrades																										M4.3				
4.3	Substation installation																										M4.4				
4.2	Fiber optic cable roll out																										M4.5				
4.3	Final inspection																														
4.4	Pre-energization testing																										M4.6				
4.4	Energize the system																										G4.1				
5: Project Closeout																															
5.1	Restoration activities																												M5.1		
5.2	Final QA of contract work																												M5.2		
5.3	Demobilization																												M5.3		
5.4	Project closeout																												G5.1		
6: Community Benefits Delivery																															
6.1	Partner with CBO (PDXO)				M6.1																										
6.2	Community outreach												M6.2																		
6.3	Conduct trainings																														
6.4	Workforce advisory								M6.3																						
6.5	Justice40 benefits																												M6.4		

Table 1. Deliverable milestones summary