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SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada - Pacific Region
800 Burrard Street, Room 219
800, rue Burrard, pièce 219
Vancouver
British C
V6Z 0B9

Title - Sujet Replace Main Distribution Line	
Solicitation No. - N° de l'invitation EZ108-192389/A	**Amendment No. - N° modif.** 001
Client Reference No. - N° de référence du client EZ108-192389	**Date** 2019-01-29
GETS Reference No. - N° de référence de SEAG PW-$PWY-037-8529	
File No. - N° de dossier PWY-8-41212 (037)	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2019-02-13**	**Time Zone** **Fuseau horaire** Pacific Standard Time PST
F.O.B. - F.A.B. **Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐	
Address Enquiries to: - Adresser toutes questions à: Costa (PWY), Michaela	**Buyer Id - Id de l'acheteur** pwy037
Telephone No. - N° de téléphone (236) 888-7800 ( )	**FAX No. - N° de FAX** (604) 775-6633
Destination - of Goods, Services, and Construction: **Destination - des biens, services et construction:** PWGSC - Esquimalt Graving Dock - Victoria, BC	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**
Vendor/Firm Name and Address **Raison sociale et adresse du fournisseur/de l'entrepreneur** **Telephone No. - N° de téléphone** **Facsimile No. - N° de télécopieur**	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) **Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)** **Signature** **Date**	

Canada

Solicitation Amendment 001

This amendment is raised to:

a) Extend the bid closing date to February 13, 2019, and

b) Incorporate Addendum 001. See attached Addendum 001, and refer to revised drawings under Attachments.

PROJECT # R.090408.001 **Addendum No. 1 – Electrical**
ESQUIMALT GRAVING DOCK (EGD)
BC HYDRO (BCH) POINT OF DELIVERY (POD)
SWITCHGEAR
825 Admirals Road, Victoria, BC

The following addendum supersedes information contained in the drawings and specifications issued of the project to the extent referenced. This Addendum forms part of the Tender Documents and is subject to all conditions set out in the contract documents

This addendum contains:

- Electrical addendum (5 pages)
- Electrical drawings E-02, E-03, E-04, E-05, E-06, E-07 (6 pages)
- Electrical drawing sheets 1020, 1021, 1022, 1027 from Project Number R.018739.001 (4 pages)

1 **Concrete Support Works**
   a Currently concrete support for the sign, propeller and anchor near the location of the PoD Switchgear (at the entrance of the Esquimalt Graving Dock) will be in the way of work taking place during the project.
      i During project execution, EGD will be responsible for the removal and relocation of the propeller and anchor. Their concrete bases will not be removed by EGD. The contractor will be responsible for coordinating the timing of the propeller and anchor's removal/relocation with EGD. The contractor will be responsible for the removal of the EGD sign if it is determined to be in the way of construction efforts. If it must be removed, the contractor will be responsible to remove, store, and reinstate the sign.
      ii The contractor shall remove the existing concrete bases and support structures.
      iii Re-instatement of the EGD sign and sign base will be the responsibility of the contractor. Reinstatement shall be in approximately the same location as it currently exists. Contractor shall provide a new concrete base design and coordinate exact location with EGD.
      iv Existing conduits and wiring shall be re-routed to new sign location, existing equipment to be re-energized.
      v Provide 2/0 AWG Cu bond to new sign, provide bonding as per keynote 9 on drawing E04.

2 **Specification 32 31 13**
   a Omit Part 2.1.8.4 of Section 32 31 13. The double gate is a sliding gate.

3 **Commissionaire's Booth**
   a During construction, the Commissionaire's Booth adjacent to the turnstiles is to remain accessible for EGD operational requirements.

4 **Drawing E01** – TITLE PAGE, LEGEND, ABBREVIATIONS AND DRAWING LIST

   a The  symbol's description shall be modified from "LV CIRCUIT BREAKER (MOLDED CASE)" to "CIRCUIT BREAKER".
   b VFI breaker is oil-immersed not molded case.

5 **Drawing E05 – OVERALL MV SINGLE LINE DIAGRAM**
   a The tag for SE-VB1 in the VFI cubicle in PoD Switchgear BCH-EGD-2 shall be changed to SE-VB2
   b The tag for 25SA1 in the transition section in the PoD Switchgear BCH-EGD-2 shall be changed to 25SA2.

6 **Sliding Gate Bonding**
   a The contractor is to provide a flexible jumper cable between the anchored fencepost and the sliding gate for bonding. The flexible jumper cable shall be an insulated 1C 2/0 AWG DLO type copper cable or other flexible braided cable. The cable shall have a CADWELD connection on the fence post and on the sliding gate post. The contractor shall locate the bonding connection to the fencepost approximately halfway between the gate and the end post, on the east side of the fence, at the top of the fence. The other end of the connection shall be on the sliding gate post nearest to the end (east side) that the gate is sliding towards, at the top of the gate. The contractor shall provide enough slack in the cable to be able to easily slide the gate fully open, but not enough slack to cause a significant tripping hazard.

7 **Sliding Gate Location**
   a Drawing E04 POD SWITCHGEAR AREA LAYOUTS Detail 1 and 2 show the sliding gate at the POD SWITCHGEAR sliding on the outside of the fence. The contractor is to install the sliding gate on the inside of the fence.

8 **Closed Transition Commissioning**
   a The contractor shall provide closed transition commissioning coordinated with PSPC, EGD and BCH. Provide all required documentation and generator, protection, switchgear commissioning as required for Closed Transition requirements. Existing generator system, protection system and transfer switches in S.E.S. shall be tested and commissioned as required by BCH. Contractor shall provide all commissioning forms to BCH and coordinate EGD, BCH requirements with EGD Generator Project Engineer. Refer to BCH Interconnection Requirements for Closed-

transition Transfer of Standby Generators March 2008. Provide Appendix 'D' Submission, As-built diagram, Generator Equipment Statement and Narrative. Provide Appendix 'E' Submission – Declaration of Compatibility.

9 SCADA/HMI Interface with Existing System

a The contractor shall update all existing SCADA/HMI interface systems with equipment added in the scope of this project to fully integrate the new equipment with existing site-wide systems.

10 Fibre Conduit Routing

a Drawing revisions for Drawings E02, E03, E04 and E06 from this project, and drawings 1020, 1021, 1022, and 1027 from project R.018739.001 are attached to this addendum. Clouded markups show new fiber routing from BC Hydro to existing pullbox 33. Fiber shall be routed as follows:

i BC Hydro shall provide the fiber and conduit to pullbox 33 from BCH manhole 1232.

ii New fiber shall then be routed by the contractor to the SES, through pullbox 33 through an existing ductbank to existing pullbox 103C through comm. conduit 1-4.

iii The fiber will continue through comm. conduit 2-5 from pullbox 103C to 106C.

iv The fiber will continue through comm. conduit 2-3 from pullbox 106C to pullbox 109C. See drawing 1021.

v The fiber will continue through comm. conduit 2-3 from pullbox 109C-111C. See drawing 1022.

vi The fiber will continue through comm. conduit 3-1 from pullbox 111C to the SES building. See drawing 1027.

11 Interlock Coordination

a The key interlock scheme for CB-3, CB-4, CB-5 inside the Service Entrance Substation (SES) shown on drawing E05 shall be modified.

i Key interlock tags shall be changed on the drawings to better communicate the scheme. In BCH-EGD-2 VFI Cubicle:

(1) K1 becomes K4
(2) K2 becomes K5
(3) K3 becomes K6

This is reflected on drawings E05 and E06.

ii A new key interlock K7 will be provided from the VFI Cubicle in the PoD Switchgear BCH-EGD-1 to CB-3 in the SES.

iii A new key interlock K8 will be provided from the VFI Cubicle in the PoD Switchgear BCH-EGD-2 to CB-4 in the SES.

iv Keys K7 and K8 will also have an apartment lock configuration with breaker CB-5.

v The contractor shall provide a new Kirk Key interlock scheme to prevent paralleling feeders based on the following:

(1) Breakers CB-3 and CB-4 are closed to supply their respective loads. Keys K7 and K8 are held in L-O interlocks of breakers CB-3 and CB-4. Tie-breaker CB-5 is locked open. Breaker CB-5 has an apartment lock and can be unlocked for operation with either key K7 or key K8. All Transition Section, Utility Metering Cubicle, and Cable Exit doors are locked closed. All keys (K1-K6) for these doors are held in transfer interlocks.

Loads can be transferred as follows:

(a) To open the Transition Section, Utility Metering Cubicle, or the Cable Exit in PoD Switchgear BCH-EGD-1 with Keys K1, K2, and K3:

(i) Open breaker CB-3
(ii) Turn key K7 in L-O interlock on breaker CB-3 to lock open. Key K7 is now free.
(iii) Open breaker CB-4.
(iv) Turn key K8 in L-O interlock on breaker CB-4 to lock open. Key K8 is now free.
(v) Insert key K7 and K8 into transfer interlock.
(vi) Turn key K7 and K8 in transfer interlock. Keys K1, K2, and K3 are now free. Keys K7 and K8 are now held.
(vii) Insert keys K1, K2, and K3 into their door interlocks and turn to unlock. Keys K1, K2, and K3 are now held.
(viii) Open the doors.

(b) Reverse the sequence to restore service.

12 Metering in the Service Entrance Substation (SES)

a The BC Hydro metering shown in the SES on drawing E05 shall be changed to SCADA metering on both branches of the single line diagram. This has been shown on drawing E06 and on drawing E07 in cells 4 and 8.

i Drawing E05:
(1) Tags 25/12PT-BCH1 and 25/12PT-BCH2 will be changed to 25/12PT-SCADA1 and 25/12PT-SCADA2
(2) 25/12CT-BCH1 and 25/12CT-BCH2 will be changed to 25/12CT-SCADA1 and 25/12CT-SCADA2
(3) "METERING" will be changed to "SCADA METERING"

ii Drawing E06:
(1) The SCADA metering shall be provided by the contractor downstream of CB-3 and CB-4 on their respective branches, replicating the scheme shown on drawing E05.

iii Drawing E07
(1) "BCH METERING" changed to "SCADA METERING" in Cell 4 and Cell 8. Contractor to update lamicoid labels on equipment as appropriate.
(2) "BCH CTs" and "BCH PTs" will be changed to "SCADA CTs" and "SCADA PTs" in Cell 4 and Cell 8.
(3) Physical SCADA displays/meters shall be included in cells 4 and 8.

13 Fencing Addendum Update to Specification Section 32 31 13 Chain Link Fences and Gates

a Parts of Specification Section 32 31 13 – Chain Link Fences and Gates shall be replaced with the following:

2.1 MATERIALS

1. Concrete mixes and materials: in accordance with Section 03 30 00 - Cast-in-Place Concrete CAN/CSA-A23.1.
    1. *Compressive strength: 35 MPa minimum at 28 days.*
    2. *Exposure Classification F-1*
    3. *Air Entrainment 6%*
    4. *Aggregate Size 38mm maximum, 5mm minimum*
    5. *Concrete mix design to be suitable for exposure to salt water and coastal conditions.*
2. Chain-link fence fabric: to CAN/CGSB-138.1.

    Powder-Coated Fence Fabric: CAN/CGSB 138.1, Black powder coated No.9 gauge steel wire woven in 37.5mm mesh, with knuckled finish top and bottom selvedge edges. Height of fabric as indicated on project drawings.
3. Posts Braces and Rails: hot-dip galvanized cold rolled welded steel pipe (ASTM A53, Grade A, (Schedule 40), zinc-coated at minimum 550 g/m2.
4. All posts, rails, caps, hinges and fittings galvanized and powder coated black.
5. Finished fence mesh height to be no more than 50mm above the existing ground.
6. Bottom rail to be 42.2mm outside diameter - 3.56mm wall thickness, ASTM A53, Grade A, (Schedule 40) galvanized and powder coated black.
7. Top rail to be 42.2mm outside diameter - 3.56mm wall thickness, ASTM A53, Grade A, (Schedule 40) galvanized and powder coated black.
8. Mid rails, where required, to be 42.2mm outside diameter - 3.56mm wall thickness, ASTM A53, Grade A, (Schedule 40) galvanized and powder coated black.
9. Posts:

    - Line Posts to be 60.3mm outside diameter – 3.91mm wall thickness ASTM A53, Grade A, (Schedule 40) spaced 3.048 m apart maximum.

    - Terminal and Gate posts 88.9mm outside diameter – 5.49mm wall thickness ASTM A53, Grade A, (Schedule 40)
10. Tie wire fasteners: aluminum wire (9 Gauge minimum), No. 6 fastened 450 MM on centers.
11. Tension bar: to ASTM A653/A653M, 5 x 20 mm minimum galvanized steel powder coated black.
12. Gates: to CAN/CGSB-138.4. All posts, rails, caps, hinges and fittings galvanized and powder coated black.
13. Gate frames: to ASTM A53/A53M, Grade A, (Shedule 40) galvanized steel pipe:
    1. *For panels up to 3.0m in length use 42.2mm outside diameter pipe for outside frame and interior bracing.*
    2. *For panels over 3.0m in length use 48.3mm outside diameter pipe for outside frame, 42.2mm outside diameter pipe for interior bracing.*
    3. *Fabricate gates as indicated with electrically welded joints, and hot-dip galvanized and powder coated black after welding.*

4. *Fasten fence fabric to gate with twisted selvage at top and bottom.*
5. *Furnish gates with galvanized steel industrial hinges allowing an opening of at least 90 degrees, frost free latch and latch catch with provision for padlock which can be attached and operated from either side of installed gate and powder coated black.*
6. *Double gates complete with 19mm diameter galvanized steel cane bolt.*

14. Fittings and hardware: to CAN/CGSB-138.2, galvanized steel and powder coated black
    1. *Provide "V" type projection with clips or recesses to hold 3 strands of barbed wire spaced 100 mm apart and powder coated black.*
    2. *Projection of approximately 300 mm long to project from fence at 45 degrees above horizontal.*
    3. *Tension bar bands: 3 x 20 mm minimum galvanized steel or 5 x 20 mm minimum aluminum.*
    4. *Post caps to provide waterproof fit, to fasten securely over posts and to carry top rail.*
    5. *Overhang tops to provide waterproof fit, to hold top rails and an outward projection to hold barbed wire overhang.*
    6. *Turnbuckles to be drop forged.*
15. Organic zinc rich coating: to CAN/CGSB-1.181.
16. Barbed wire: to ASTM A121 2 mm diameter galvanized steel wire 4 point barbs 150mm spacing.

2.2 Finishes
All posts, rails, caps, hinges and fittings to be galvanized and powder coated black.

STRUCTURAL ADDENDUM
There has been no specification or drawing modifications within Addendum #1

ELECTRICAL ADDENDUM E-01
Reference above addendum issued by WSP Electrical Consulting – 5 pages
Also refer to the following drawings, which have been altered and reissued as part of addendum E-01. Changes on these drawings are denoted by a clouded area and revision triangle:

E02 POD SWITCHGEAR SITE PLAN_R4
E03 POD SWITCHGEAR ELEVATIONS_R4
E04 POD SWITCHGEAR AREA LAYOUTS_R4
E05 OVERALL MV SINGLE LINE DIAGRAM_R4
E06 PROTECTION SINGLE LINE DIAGRAM_R4
E07 SERVICE ENTRANCE SUBSTATION EQUIPMENT CROSS-SECTIONS AND CONDUCTOR ARRANGEMENT_R4

END OF ADDENDUM