CT0319 AC Transmission Line Construction

Scope of Work Summary:
Package includes the construction works of approximately 530 km of two single circuit 3- phase 315kV transmission lines parallel to each other (each approximately 265km in length) between new Muskrat Falls Transmission Station and existing Churchill Falls Transmission Station. Lines will generally be running in parallel to the existing 138kV wood-pole H-frame transmission line between Churchill Falls Transmission Station and Happy Valley Goose Bay. Transmission Lines will typically employ guyed V tangent and light angle and self supporting heavy angle and strain lattice structures, with horizontal phase configuration and two peaks for shielding. The new transmission lines will be built on a total RoW width of 100m adjacent to the 20m wide RoW of the existing 138kV transmission line. Each transmission line will employ an OHSW on one peak and an OPGW on the other along the entire length of the line. Furthermore, counterpoise conductor will be used to connect all the structures along the entire length of the line. Phase conductor is twin bundle ACSR Drake or equivalent and OHSW conductor is ½" Steel wire. OPGW will be of similar mechanical characteristics to that of OHSW.

Construction includes contractors accommodation camps, material storage yards, construction access roads, Right of way clearing, installation of foundations, assembly and erection of structures complete with cross-arms, insulators, guy wires, structure grounding systems, etc., stringing and sagging of phase conductors, OHSW and OPGW c/w spacers and dampers, installation of counterpoise conductor, inspection , site cleanup, restoration works and mark-up of as-built drawings at the end of construction. Construction works also include the temporary by-pass connections of the lines at each end, as well as the de-installation and salvage of the existing 138kV transmission line.

One of the 315kV transmission lines shall be complete and ready for commissioning in August 2014. The line will be initially energized at 138kV. The second line shall be complete and ready to energize in 3rd Quarter of 2016. In 2016 both the lines will be energized at 315kV.

Work Included:
Refer Scope of Work Summary

Work excluded:
Excludes supply of overhead shieldwire, insulators, tower steel, hardware, accessories, fittings, optical ground wire conductors, guy wires, conductor, earthing materials, steel grillage and rock anchors.