Team Project Role

39 years of experience in the high voltage industry, working in multiple positions such as construction manager, site manager, substation technician, distribution lineman, protection and controls technician, construction foreman.

Site managing includes civil earthwork, foundations, steel erection, assembly & commissioning of electrical equipment, bus work, secondary electrical wiring, protection and controls checks and energization tests.

1.5 years managing GMP build for Proctor & Gamble expansion. 10mths Managing New Gold's thickener and tailings expansion.

42 YEARS OF CONSTRUCTION

EXPERIENCE

- > 8 YRS WITH BURNS & MCDONNELL
- > 14 YRS WITH SNC LAVALIN
- 20 YRS WITH TRANSALTA UTILITIES

EPCOR - 330P Genesee 500kv Substation Expansion.

06/22- Forecast 05/24, EPCOR / Capital Power Corp.

Site Construction manager, Burns & McDonnell is expanding the existing EPCOR 330P 500kv/138kv substation to interconnect Capital Powers Corps 2-new combined cycle generators (G6 & G7) The new 240m x 240m substation will be 200m west of the existing 330P station and includes but not limited to : site clearing , subgrade , final grading , foundations, structural steel, 500kv & 138kv electrical equipment, control cable & ground grid, 1- new control building , 1- 500kv/138kv power transformer , 4 -500kv breakers and associated CT's, PT's and disconnects , 8-138kv breakers and associated disconnects . 500kv T-line interconnections between substation and G6L, G7L, 500kv north & south existing bus. 138kv T-line interconnection to 430L, 8L10, SST1,2,3, & 12TC2L. Salvage in the existing yard will include 430L, 8L10, 138kv bus & associated breakers, 1- 500kv / 138kv power transformer.





(continued)

British Columbia Atmospheric River Flood Response 03/22-04/22

Client: Price Waterhouse Cooper / B.C. Government.

Site Construction Manager, Project scope was to remove all human made and woody debris from the river systems that flooded during the Oct 2021 Atmospheric River rain fall in lower mainland British Columbia. River systems included the Fraser, Coquihalla, Chilliwack, Tulameen, Similkameen, Cold Water, Nicola, and the lower Thompson rivers. River debris assessments were performed by helicopter, jet boats, ATV, hiking, vehicles and drones. Assessments teams included representation from environmental, aboriginal, archology, construction, Forestry Land Natural Resources, Dept of Fisheries and Oceans. Removed debris was classified and taken to appropriate recycling depots. Wood debris was repositioned along higher parts of the river or removed for indigenous bands. My role as site manager included safety, schedule, land access approval, crew resources, and debris tracking etc.





(continued)

Paste thickener and thickened tailing delivery system for New Afton Mine. | NEWGOLD

Kamloops, British Columbia | 01/21-11/21

Site Construction Manager, NewAfton mine constructed a 13,000m3 thickener and amended tailing paste facility. The NATSF (NewAfton tailing storage facility) was connected to the TAT (Tailing and Amended Tailings) with 2.8km 12" Carbon steel above ground pipeline. Additional HAOP (Historical Afton Open Pit) HDPE pipelines also were installed to fill the HAOP with the amended tailing paste.

thickener in 2021 was the largest thickener installed above ground in North America. The design was fabricated by Outotec. Design of the TAT and Pipeline was done by Fluor Canada of Vancouver.

Subcontractors SOW

was separated into civil earth works, civil foundation, civil structural, mechanical, electrical, Scaffold, pipeline. Daily activities would include but not limited to: Reviewing Single line diagrams, P&ID's, ISO metric drawings, issuing work, hot work, excavation permits, Submittals, RFI's proceeded through Procore.

NB: New Gold project continues with construction activities April 2020 – Nov 2021 in a Covid 19 protocol format i.e. 1) Covid 19 questionnaire waiver 2) IR temperature scanning prior to site access 3) 6ft social distancing when possible 4) Facial mask required at all times except when eating.





(continued)

Demi Building Expansion | Procter & Gamble (P&G)

Belleville,

Ontario, Canada | 6/19-11/20

Site construction

manager . P&G Demi GMP Expansion project, 118,000sqft main floor converting building C/W Process utility building, 15,000sqft Process equipment Mezzanine and 10,000sqft air handling penthouse. Site managing included civil earthworks, foundation, slab floors, steel erection, Murox building assemble, EPDM roofing C/W parapet edge fabrication. Electrical and mechanical services for building Occupancy. Additional tasks: coordination applications, inspections, and general construction review documentation for the City of Belleville.

NB: The Demi building expansion continues with construction activities after April 2020 – Nov 2020 in a Covid 19 protocol format i.e. 1) Covid 19 questionnaire waiver 2) IR temperature scanning prior to site access 3) 6ft social distancing when possible 4) Facial mask required at all times except when eating.





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Sunnybrook Interconnection Project | Altalink

Canada | 3/18 - 6/19

Site construction manager. Sunnybrook 510s interconnection project includes the addition of line shunt reactors and a neutral reactor at Sunnybrook 510S and the associated line termination and protection equipment. The project scope includes the new line terminating in an existing Sunnybrook 500 kV switching station.

Southwest/East Alberta Transmission Development | Altalink

Canada | 1/17 - 2/18

Site construction manager. SweatD project

- Development 1 Saunders Lake 289S Substation
 - Construct a new 240/138 kV substation, Saunders Lake 289S Substation.
 - Construct two (2) new 240 kV circuits (910L/1140L) from the proposed Saunders Lake 289S Substation to an inand-out connection to the existing 910L transmission line.
 - Construct two (2) new 240 kV circuits (914L/1112L) from the proposed Saunders Lake 289S Substation to an inand-out connection to the existing 914L transmission line.
 - Construct two (2) new 138 kV transmission line (454L/455L) to connect the proposed Saunders Lake 289S
 Substation and the existing Nisku 149S Substation and modify Nisku 149S Substation to accommodate the new 138 kV transmission lines; and
 - Salvage a portion of 780L and 858L and re-terminate the 780L and 858L to the proposed Saunders Lake 289S Substation (780L/858L Modification).
- Development 2 Cooking Lake 522S
 - Modify 780L and 174L (780L/174L Modification):
 - o create a new 138 kV circuit (780L) between East Edmonton 38S Substation and Cooking Lake 522S Substation; and
 - create a new 138 kV circuit (174L) between the proposed Saunders Lake 289S Substation and Bardo 197S Substation.
 - Modify Cooking Lake 522S Substation to accommodate 780L/174L Modification; and
 - Construct a new microwave tower at Bardo 197S.

HVDC Link | Altalink*

2015 - 2016

SNC- Lavalin, Construction Manager to oversee Siemen's turnkey 500 KV HVDC station / link and interconnection work at 510s Sunnybrook.

Western Alberta Transmission line | Altalink*

2014 - 2015

Managed the substation construction of the 510S Sunnybrook 500 kV AC substation, from the steel erection, equipment installation to the final commissioning and energization of the High voltage equipment.

(continued)

Western Alberta Transmission line | Altalink*

2014

Managed the substation construction of the 102S Langdon 240 kV AC & 520s Bennett 500 kv AC substation, from the steel erection, equipment installation to the final commissioning and energization of the High voltage equipment.

12s Heartland 500 kV Substation | Altalink*

2014

Managed the substation construction of the 12S Heartland 500 kV EATL expansion. Addition of 2 – 500 kV lines and associated breakers and equipment, including earthwork site preparation, steel & equipment installation to the final commissioning and energization of the High voltage equipment.

12s Heartland 500 kV / 240 kV Substation. Client: Altalink*

2012 - 2013

Managed the substation construction of the 12S Heartland 500 kV/240 kV substation. 2-500 kV lines, 2-240 kV lines, 3 -single phase 500/240 kV 400MVA transformers and associated breakers and equipment. Includes earthwork site preparations, steel & equipment installations, to the final commissioning and energization of the high voltage equipment.

338s Cherhill 240 kV/25 kV Substation | Altalink*

2011 - 2012

Managed the substation construction of the 338S Cherhill (240 kV/25 kV) substation, from the earthwork site preparation to the final commissioning and energization of the high voltage equipment.

Southwest Development Project | Altalink*

2009 - 2010

Managed substation construction of the Goose Lake (240 kV/138 kV) substation and the additional 240 kV upgrade to AltaLink's Peigan (240 kV/138 kV) substation.

• 2- 240 kV lines, 3-138 kV lines, 1- 240/138 kV transformer

BCTC Dokie Substation | BC Hydro*

2008 - 2009

Managed the construction of the BCTC Dokie 240 kV switching substation.

Christina Lake Project | Altalink*

2006

Managed the construction of two 265kV substations (Leismer 256 kV/25 kV, Christina Lake 256 kV/25 kV).

Cordell / Hansman Lake Project | Altalink*

2005 - 2006

Managed the construction of 102km of 240 kV wood-pole transmission line, and a 240/138 kV 250MVA substation located at Metiskow. The interconnection to the existing Metiskow substation includes three 138 kV lines and one 240 kV transmission line.

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Power System Capacity Upgrades | TransAlta*

Alberta | 2001 - 2002

This project involved adding two 138/25 kV 25MVA transformers and associated equipment, four 25 kV circuit breakers and associated equipment, two 138 kV circuit breakers and associated equipment, new control buildings, one 69/25 kV 25MVA transformer and associated equipment, and one 69 kV circuit switcher. Two 69/25 kV transformers and one 25 kV regulator were salvaged.

Nova Joffre Co-Generator Interconnection | TransAlta*

Red Deer. AB | 2000 - 2001

This project involved the interconnection of the Nova Joffre Co-Generator to the Alberta electrical grid. Four existing 138 kV circuits were reconfigured for power system efficiency. 18km of 138 kV transmission lines were salvaged and replaced with a steel tower double circuit 138 kV system, allowing power transfer to the 240 kV grid. A 240 kV station including a second 300MVA transformer and 240 kV circuit breaker were reconfigured. A new 138/13.8 kV substation was constructed, and 13km of new 138 kV transmissions line to connect Union-Carbide was also integrated into this project. In total, construction affected 13 substations and eight 138 kV transmission lines and was delivered on a very tight schedule.

TransAlta Energy Co-Generator Interconnection | TransAlta*

Edmonton, AB | 1999 - 2000

This project involved the construction of a new 138 kV substation, including two power transformers and one 138 kV circuit breaker, and interconnection of this new substation with 138 kV power cable over to an existing 138 kV substation. This instance was the first time for TransAlta to use 138 kV power cables in Alberta.

25 kV Pole Replacement Project | TransAlta*

Calgary, AB | 1998

Developed firm bid contracts and managed construction to replace 700-25 kV distribution poles and install 1400 steel pole stubs. This step was the first for TransAlta to unify the province-wide pole replacement programs.

^{*}Denotes experience prior to joining Burns & McDonnell