J. Mark Rodger
T (416) 367-6190
F (416) 361-7088
mrodger@blg.com

John A.D. Vellone
T (416) 367-6730
F (416) 361-2758
jvellone@blg.com

Borden Ladner Gervais LLP
Scotia Plaza, 40 King St W
Toronto, ON, Canada M5H 3Y4
T 416.367.6000
F 416.367.6749
blg.com

March 28, 2013

DELIVERED BY RESS, COURIER AND E-MAIL

Ms. Kristen Walli, Board Secretary
Ontario Energy Board
2300 Yonge Street
Suite 2701
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: East–West Tie Designation Proceeding
OEB File No. EB-2011-0140
AltaLink Ontario, L.P. ("AltaLink") Interrogatory Responses

Pursuant to Procedural Order No. 6, we attach AltaLink's interrogatory responses, which are inclusive of responses to the common questions addressed to all applicants plus the questions addressed specifically to AltaLink. No AltaLink interrogatory response is being filed on a confidential basis.

Yours Truly,

BORDEN LADNER GERVAIS LLP

Original signed by J. Mark Rodger

J. Mark Rodger
Incorporated Partner*
*Mark Rodger Professional Corporation

Encl.

Copy: Steve Hodgkinson, AltaLink Ontario, L.P.
All Parties in EB-2011-0140 (By e-mail only)

TOR01: 5147362: v1

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #1

Please provide your proposed organizational chart for the project development and construction phases as well as for the operation and maintenance phase, showing the various functions (including those functions listed in 4.1 of the Filing Requirements) and the reporting structure. Please include in these charts the names of members of the proposed management team (including the project manager / lead) and technical team who would be leading each function.

Response:

The organization chart for the project development and construction phases is shown on Figure 2.1-2 of AOLP's Designation Application, page B-9, and is attached to this response.

The organization chart for the operation and maintenance phase is shown on Figure 2.1-1 of AOLP's Designation Application, page B-7, and is attached to this response. The names of AOLP's General Manager, Operations and Maintenance Manger, Field Operations and Administrative Assistant will be determined closer to the proposed project in-service date (i.e. in the 2017-2018 timeframe).

The Key Management Personnel and Key Technical Personnel are identified in Appendices 2 and 4 of AOLP's Designation Application.

Figure 2.1-2 AOLP Organizational Chart

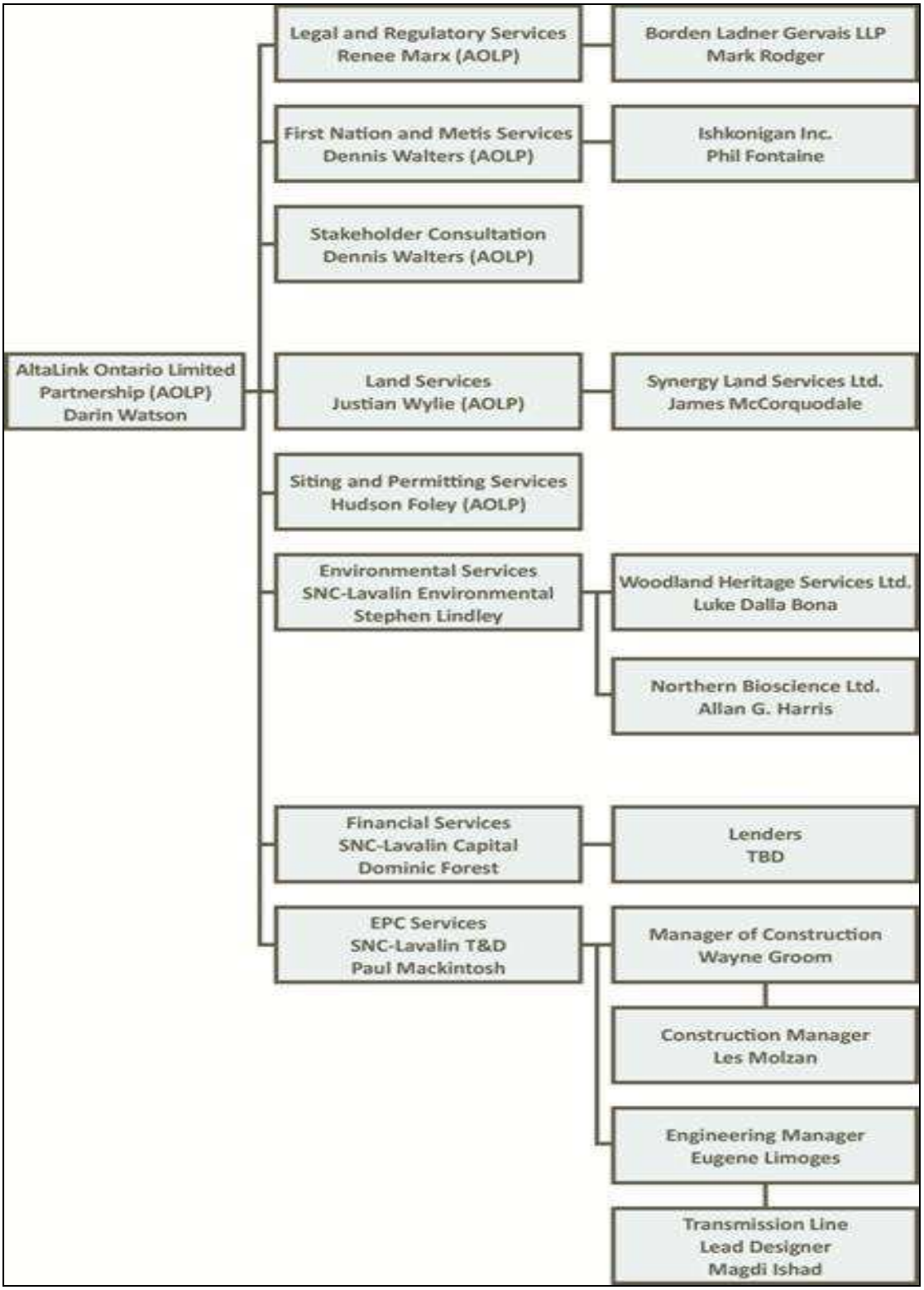
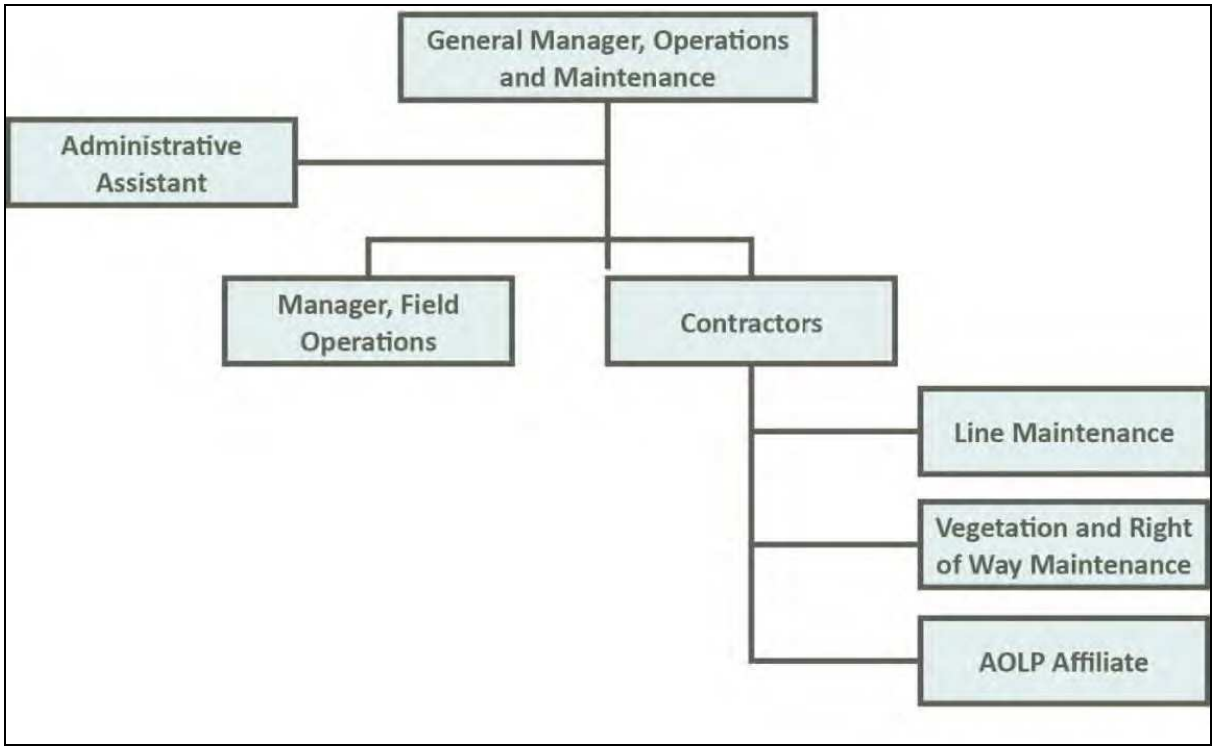


Figure 2.1-1 – Operations and Maintenance Organization



AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #2

For the chosen project manager / lead, please confirm if this person will be dedicated to this project and describe this person's experience in managing similar projects.

Response:

Darin Watson, AOLP's overall project manager will be dedicated to the EWT project and will have responsibility for overall project delivery from development and construction through to commissioning and commercial in-service.

Having 25 years of international project execution experience on projects worth hundreds of millions, Mr. Watson is extremely well equipped to deliver challenging and complex major projects such as the EWT. Mr. Watson is currently involved with complete delivery of AltaLink's Critical Transmission Infrastructure projects including the Heartland and Western Alberta Transmission Line (WATL). The Heartland and WATL projects are valued at 600M$ and 1,400M$ respectively. Mr. Watson was panel Chair for the very contentious Heartland Transmission Project Facility Application and the Western Alberta Transmission Line Facility Application hearings. The Alberta Utilities Commission subsequently granted Permits to Construct and Licenses to Operate Alberta's first 500 kV AC and 500 kV DC transmission projects. Prior to joining AltaLink, Mr. Watson held progressive positions of responsibility in independent power generation developer/owner and EPC companies.

AOLP intends to utilize the key management and technical personnel identified in the organization charts in the response to All Applicants IR #1, and in the AOLP Designation Application and appendices on the EWT project.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #3

For the list of "key technical team personnel" provided in response to section 4.2 of the Filing Requirements, please provide the specific proposed project / O&M role for each member.

Response:

The proposed roles for each of the identified key technical personnel are as follows:

EPC Services:

- Brian Townsend - Senior Transmission Lines Engineer advising engineering team on the design of structures and lines with respect to the long term operation and maintenance of the assets.
- Dale Reso - Lead Manager for the establishment and implementation of the operation and maintenance organizational structure and plan.
- Wayne Groom – Manager of Construction responsible for overall construction planning and strategy.
- Les Molzan - Construction Manager responsible for the day to day execution of all construction activities.
- Eugene Limoges – Engineering Manager responsible for all engineering design activities.
- Xiaofeng Ma – Principle Engineer assisting Engineering Manager.
- Magdi Ishac – Lead Engineer for line design assisting Principle Engineer.
- Alfred Lin – Senior Engineer for line design assisting Lead Engineer.
- Alex Lucas – Principle Engineer assisting Engineering Manager for design of line structures.
- Ariel Graza – Quality Manager responsible for the implementation and audit of the QC/QA plan.
- John Bullock - Project Controls Manager responsible for the management of the project controls team.
- Ihab Awad – Project Controls Lead responsible for the execution of the project control activities and assisting the Project Controls Manager.
- Jigon Varghese – Project Scheduler assisting the Project Controls Manager.
- Kevin Wilson – Procurement Manager responsible for creation and execution of procurement management plan.
- Randall Walker – Health Safety and Environment Manager for construction activities.

Aboriginal Consultation Services:

- Phil Fontaine - President, Ishkonigan Consulting & Mediation will provide Aboriginal consultation and participation advice.

Public Consultation Services:

- Dennis Walters – Director Aboriginal Consultation accountable for oversight of Stakeholder & Aboriginal consultation.

- Curt Boechler – Manager of Stakeholder Engagement accountable for delivery of stakeholder and agency consultation activities.
- Leanne Pinksen – Stakeholder Engagement Specialist for landowner consultations.

Environmental Services:

- Allan Harris - Senior Technical Advisor on a range of critical ecological issues including wetland ecosystems, woodland caribou and species at risk.
- Luke Dalla Bona - Senior Environmental Consultant responsible for built heritage and archaeological studies. Responsible for all aspects of built heritage and archaeological studies including development and implementation of these studies, public and regulatory liaison.
- Alan Hayton - Senior Environmental Consultant will assist EA Project Manager.
- Karola Toth - Lead Manager and Technical Authority for the project on the development and implementation of construction environmental management plans and associated permitting.
- Angela Brooks - Lead Manager and Technical Authority for the project on surface water, aquatic studies and avifauna and senior team lead for aquatic field studies.
- James Harris - Lead Manager and Technical Authority for all natural environment studies and technical authority for terrestrial studies and geographic information system studies and manager of all terrestrial field studies.
- Shilpa Tiwari - Lead Manager and Technical Authority responsible for all aspects of social impact assessment including community and stakeholder consultation.
- Lloyd Torrens - Senior Environmental Consultant will assist the EA Project Manager as required and support the overall management of the project.
- Craig Wallace - Environmental Assessment Project Manager.
- Mary Shea - Senior Environmental Consultant will assist the EA Project Manager as required and support the overall management of the project.
- Matt Lupp - Senior Environmental Consultant will provide technical assistance in water quality assessment and permitting.
- Ed Lloyd - Senior Environmental Consultant on evaluation of potentially contaminated sites.
- Adriana Lafleur - Team Lead and Senior Environmental Consultant on environmental assessment with respect to geological issues.
- Heather Ashbourne - Junior Environmental Scientist will provide assistance on socioeconomic impacts.
- Michael Rate - Junior Environmental Scientist will provide assistance on terrestrial issues and will lead terrestrial field studies.

Land Services:

- James McCorquadale – Vice President Synergy Land Services will provide land acquisition services for the project.

Siting and Permitting:

- Kyle Klages - Manager, Siting will provide professional planning services. His experience includes 5 years as a Forest Management Forester in Northwestern Ontario.
- Andy Edeburn - Director, Environment for AltaLink will assist the project team with preparation of the environmental assessment, permitting, planning, and regulatory engagement.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #4

On a national and international basis, identify any and all transmission projects where the applicant, its partner(s), shareholder(s), affiliate(s) or other related entities (collectively referred to as the "Applicant") have commenced the construction of a new transmission line but which the Applicant has been unable to complete and/or bring into service. Please describe the reasons why the Applicant has been unable to complete the transmission line and/or bring it into service.

Response:

There are no transmission projects on a national and international basis where the Applicant has commenced construction on a new transmission line and been unable to complete the project.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #5

Please list the individuals that you plan to allocate to each of a) negotiating First Nation and Métis participation and b) conducting consultation with First Nation and Métis communities as delegated by the Crown. For each individual, please describe the individual's responsibilities on the team, relationship to the affected communities (if any), and relevant experience

Response:

The following is AOLP's proposed list of individuals who will be assigned to work on the development of the Aboriginal Participation Framework and the Aboriginal consultation programs. Combined, the various individuals bring a significant and broad range of knowledge and experience in working with Aboriginal communities. This broad range of skills will be applied to help ensure success in both providing communities the opportunity to participate in the project and to ensure a comprehensive consultation program is carried out. Additionally, AOLP will work with each community to identify potential members from the community that may provide guidance and assistance in the communities' consultation protocols.

Stephen E. Hodgkinson, P. Eng., Vice-President, Corporate Development & Business Partnerships
Role: Negotiating participation
Steve graduated from the University of Toronto with a degree in civil engineering and began his career in Ontario with a consulting engineering firm and then with Ontario Hydro. From there he moved west to Calgary to work for TransAlta Utilities where he managed the transmission line route selection and property management functions.

In the 1990's he moved back to Ontario in the unregulated side of TransAlta's business and worked on development of gas-fired cogeneration plants in Ottawa, Mississauga, Windsor and Sarnia. Steve moved back to Calgary in 2002 as TransAlta's Director of Commercial Management and divided his time between Fort McMurray and Calgary.

In 2006 he joined AltaLink as Vice-President of Corporate Development, responsible for coordinating AltaLink's participation in industry stakeholder processes and developing opportunities in support of regulated transmission projects. One of Steve's recent accomplishments was the negotiation of agreements with two First Nations in southern Alberta that lead to the construction of nearly 50 kilometres of major transmission lines on Reserve lands.

Dennis Walters, Director of Aboriginal Relations
Role: Negotiating participation and conducting consultation
Dennis has over thirty years experience in the electric transmission industry. He has held leadership positions in consultation, Aboriginal relations, community and government relations, project management, transmission engineering and design, transmission construction and right-of-way planning. Dennis has led the consultation and Aboriginal engagement activities on a number of large

transmission projects up to 500 kV in size. He has also been involved in negotiations with Aboriginal communities relating to the sale of distribution and transmission facilities as well as the transfer of land. Dennis has a diploma of civil engineering technology and holds a certificate in Public Participation through the International Association of Public Participation.

Phil Fontaine, Founder of Ishkonigan Consulting & Mediation
Role: Negotiating participation and strategic advice on conducting consultation
Phil Fontaine is a dedicated and highly respected figure in Canada. He has been instrumental in facilitating change and advancement for First Nations people from the time he was first elected to public office as Chief, at the young age of 28. He is a proud member of the Sagkeeng First Nation in Manitoba and still plays an active role in the support of his community.

In the early 1980's he was elected to the position of Manitoba Regional Chief for the Assembly of First Nations. When his term expired in 1991, he was elected Grand Chief of the Assembly of Manitoba Chiefs where he served three consecutive terms. He played a key role in the development of Manitoba's Framework Agreement Initiative, in the defeat of the Meech Lake Accord, and signed an Employment Equity Agreement with 39 federal agencies. In 1997 he stepped onto the national stage where he was elected National Chief of the Assembly of First Nations for an unprecedented three terms in office.

His list of accomplishments as National Chief include signing the Declaration of Kinship and Cooperation of the Indigenous and First Nations of North America, being the first Indigenous leader to address the Organization of American States, leading the successful resolution and settlement of the 150 year Indian residential school tragedy which led to the historical Apology by the Canadian government, the Making Poverty History Campaign, lobbying for the United Nations Declaration on the Rights of Indigenous People, and negotiating a fair and just process for the settlement of Specific land claims.

His belief in creating an inclusive Assembly of First Nations ensured that all information was accessible in both French and English languages, and initiated the Renewal Commission, resulting in a 47 recommendation report on improving the political structure of the AFN, including a universal vote by all First Nations citizens.

Mr. Fontaine has received many awards and honours for his work, including the 1996 National Aboriginal Achievement Award for Public Service, 14 honorary degrees and membership in the Order of Manitoba

S. Michael Fontaine, Vice-President Ishkonigan Consulting & Mediation
Role: Negotiating participation and strategic advice on conducting consultation
Michael Fontaine is the Vice-President of Ishkonigan. Reporting directly to the President, Michael is involved in formulating and implementing strategic input into all Ishkonigan initiatives and projects as well as client engagement. Michael's background is in government (both federal and First Nation), banking (personal lending) and entrepreneurial both as a business owner and as the managing director of a multi-million dollar Joint Venture.

Michael is a descendant of signatories to Treaties 5 and 6 and is Ojibway from the Sagkeeng First Nation in Manitoba with certification in Mediation and Negotiation from Harvard University as well as from the University of Windsor. In addition, Michael has a Masters Certificate in Project Management from the Schulich School of Business. Michael has devoted a significant portion of his career to the advancement

of First Nations rights and interests including the development and enhancement of First Nation economic participation.

Michael is the 2010 Runner-Up for the CANDO Economic Developer of the Year finishing second to the Cree Regional Economic Enterprises Company Inc. (CREECO) from Quebec.

Darrell Boissoneau, Aboriginal Relations Advisor, Ishkonigan Consulting & Mediation
Role: Conducting consultation
Darrell is a well respected former chief and councilor of the Garden River First Nation. During the course of his long political career he has built up an extensive network within academia, government, private and public sector and throughout the world's indigenous community. He is currently the President of the Shingwauk Kinoomaage Gamig.

Jason Wilson, President INDI Indigenous Development Inc.
Role: Negotiating Participation
Jason is a proud Ojibwe from Rainy River, First Nation, blessed with a strong family circle. He has lived off reserve for the last 15 years, working in the fields of Federal and Provincial government, First Nations politics and the private sector.

Jason has brokered many deals between First Nations, government and Canadian and international companies in areas of land use, energy, mining, exploration, security and telecommunications: He was a political advisor to Grand Chief of Treaty #3. He was the first Aboriginal hired by the Prospectors and Developers Association in their 70 year history. He was a registered lobbyist for the Liberal Party National Headquarters. He was a government relations advisor in the historic May 2005 ratification of the Rainy River First Nations land.

INDI reflects Jason's commitment to create economic stimulation, job training and meaningful employment for First Nations. He welcomes input and guidance from Aboriginal elders, youth, women and men and from mining, hydro, oil, gas and construction companies, so that we move forward together.

Duane Lyons, President Valley Ridge Energy
Role: Negotiating Participation
Duane has over 40 years of experience in the electric power sector, having had extensive involvement in major generation, transmission and related projects in many jurisdictions in Canada, including Ontario, and throughout the world. This includes over three decades as an executive in utility, and other electrical industry organizations, and over 10 years as a Senior Vice President with AltaLink. During his time with AltaLink, Duane was heavily involved in First Nations issues generally, as well as the development of the business arrangements and negotiation of the transmission partnerships in southern Alberta, with the Blood and Piikani First Nations.

Colin George, Manager Aboriginal Relations
Role: Conducting consultation
Colin has over 5 years direct experience with stakeholder and Aboriginal engagement within transmission and provincial government roles. He has negotiated memorandums of understanding, Aboriginal community actions plans, and developed avoidance and mitigation plans in relation to traditional land use assessments with several First Nations and Métis communities through his

involvement with more than 20 transmission projects. Colin maintains relationships with counterparts in industry (transmission, distribution, oil & gas) and with government officials at the provincial and federal levels with accountability for all aboriginal consultation. He has previously worked with aboriginal communities and band members in northern and central British Columbia, as well as throughout Alberta. He is an active member of the Canadian Electrical Association's Aboriginal Relations Task Group (ARTG), Circle for Aboriginal Relations (CFAR) and is a participant with the Calgary Chamber of commerce Aboriginal-Business Connection Series. Colin has a BA in Sociology a Bachelor of Social Work and is certified International Association for Public Participation (IAP2) member.

Bryce Starlight, Aboriginal Relations Advisor
Role: Conducting consultation
Bryce has over 10 years direct experience working with Aboriginal communities. During this time, Bryce has developed and managed consultation programs involving developing strategies and working groups to address key consultation issues, funding traditional land use programs, research projects, managed traditional land use programs for First Nations and industry, facilitated working committees, and presented to First Nation leadership on a number of occasions. Bryce's extensive involvement in the Aboriginal communities has included key roles with the Tsuu T'ina Nation water development initiatives, traditional knowledge program, representing Alberta First Nations on AANDC negotiations of water legislation, managing a summer youth employment program, board member of various environment and education boards, participation in the Province of Alberta's Land Use Framework (LUF) South Saskatchewan Regional Plan (SSRP) Terms of Reference development and Regional Advisory Committee, and the development of recommendations for Alberta First Nations on the government of Alberta's Consultation Policy in 2010. He has also presented on a range of topics from First Nations consultation, effective co-management strategies with First Nations, importance of traditional knowledge on project decision-making, and First Nations water rights. In addition Bryce has carried out volunteer work within his community with various Nation teams, fundraising, and regular participation in the Calgary Stampede in the Indian Village. Bryce has a Political Science degree from University of Calgary, and a General Studies diploma from Mount Royal College, and is the recipient of the Calgary Aboriginal Urban Affairs Committee Youth Achievement Award in 1997.

Kris Gladue, Aboriginal Relations Advisor
Role: Conducting consultation
Kris has over 10 years direct experience working with Aboriginal communities. During that time he has planned and implemented Aboriginal consultation programs involving presentations to community leaders and their members, developing collaborative approaches to engaging communities such as with traditional knowledge assessments. Kris' extensive involvement with the Aboriginal communities includes roles with Métis Opportunity Inc. and the Métis Nation of Alberta (MNA) in areas of traditional knowledge and land use, project development, labour market development and Métis employment services. He has also carried out volunteer work as a Métis Youth Representative with the Métis National Youth Advisory Council and Alberta Ministry of Aboriginal Affairs. Kris has a Management Studies Diploma from Grant MacEwan College.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #6

If you are selected as the designated transmitter, will the First Nation and Métis communities identified by the Ministry of Energy in its letter to the Ontario Power Authority ("OPA") dated May 31, 2011, and possibly other affected and interested First Nation and Métis communities, be given an equal opportunity to participate in the project? Will all affected (or interested) First Nation and Métis communities be given equal opportunity for all forms of participation in the project (e.g. employment opportunities, equity participation)?

Response:

All of the First Nation and Métis communities identified by the Ministry of Energy as communities to consult in its letter to the Ontario Power Authority (OPA) dated May 31, 2011 will be given an equal opportunity by AOLP to participate in all forms of participation in the project if AOLP is designated by the Board to develop the East-West Tie line (see Part B, Section 2.3 of AOLP's Designation Application for a description of the forms of participation proposed).

In addition, if the Provincial Crown identifies any other First Nation or Métis communities for consultations in respect of the proposed East-West Tie line (which together with the First Nation and Métis communities identified in the May 31, 2011 letter are, collectively, the "Identified First Nation and Métis Communities"), AOLP would similarly give such communities an equal opportunity to participate in all forms of participation in the project.

While AOLP intends to make, *inter alia*, a 49% equity interest available to allow an equal opportunity to the Identified First Nation and Métis Communities to participate, AOLP's intention is not to pre-judge any outcome that might be preferential to any First Nation or Métis community. Actual forms of participation will be determined by each of the Identified First Nation and Métis Communities in the process of consultations.

While interested First Nation or Métis communities that are not among the Identified First Nation and Métis Communities will not be eligible to participate in the project equity offering (which would dilute the equity available for the Identified First Nation and Métis Communities), such interested First Nation or Métis communities would be given an opportunity to participate in priority employment, training and contracting benefits as follows:

- First priority employment, training and contracting benefits would be given to the Identified First Nation and Métis Communities as a group; and
- Second priority employment, training and contracting benefits would be given to all other First Nation and Métis communities.

It is worth noting that in preparing its participation framework, AOLP contacted representatives of the Identified First Nation and Métis Communities. This further demonstrates the inclusive philosophy that underlies AOLP's approach to First Nation and Métis participation.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #7

Does a First Nation or Métis community need to be "affected" by the project, in order to participate, or can it participate if it is not affected but still interested?

Response:

Both affected and interested First Nation and Métis communities will be given an opportunity to participate in the project. However, as noted in response to All Applicants IR #6, AOLP will provide a greater opportunity to participate for affected communities than for interested communities.

This approach is intended to recognize the proximity of the project on affected First Nation or Métis communities and their traditional lands, while still acknowledging and facilitating the participation of other interested First Nation and Métis communities.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #8

Have you (or an affiliate) assisted, or will you (or an affiliate) assist, a prospective First Nation and Métis equity participant by providing a loan, by arranging financing through an independent financial institution, or otherwise? If yes, please explain how.

Response:

AOLP will assist First Nation and Métis communities to arrange financing through independent financial institutions or otherwise. This would involve arranging introductions with traditional banks and other sources of financing, attending meetings and assisting in the preparation of business plans to support requests for third party financing.

AltaLink's experience in Alberta with equity participation by the Blood and Piikani First Nations has shown that this approach can be very successful.

In addition, AOLP will assist First Nation and Métis communities seeking to access other funding created to facilitate this type of equity participation. For example:

- On August 25, 2011, the OPA was directed to adjust the Aboriginal Energy Partnerships Program (AEPP) to fund Aboriginal communities that are exploring equity positions in future and planned major transmission lines in Ontario, where the OPA has identified transmission capacity need. Up to $500,000 of total funding will be made available for each transmission line with funding preference going to Aboriginal communities where transmission lines cross traditional territory.
- On June 30, 2012, the Government of Ontario announced an expansion of its Aboriginal Loan Guarantee Program making a total of $400 million available under the loan program to support Aboriginal participation in renewable green energy infrastructure in Ontario including transmission projects. The program was announced in the 2009 Ontario budget and provides a Provincial guarantee for a loan to an Aboriginal corporation to purchase up to 75% of an Aboriginal corporation's equity in an eligible project, to a maximum of $50 million.

In the unlikely event First Nations and Métis communities are unable to raise all of their equity financing, AOLP is prepared to provide the necessary loans to enable their participation as contemplated in AOLP's Designation Application.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #9

Have you undertaken, or will you undertake, an assessment to quantify the potential impacts on the affected First Nation and Métis communities, the amount of which could be counted toward the participating community's equity contribution?

Response:

AOLP will undertake consultations with all affected First Nations and Métis communities to assist in the communities' assessment of the potential impacts on their respective communities.

AOLP's experience with transmission projects is that better outcomes can be achieved for all stakeholders involved by focusing efforts on mitigating potential impacts to the extent reasonably possible. Additionally, the offering of the up to 49% equity participation by First Nations and Métis is an acknowledgment of the potential impacts associated with the project.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #10

For those who propose to have or have equity participation with First Nation or Metis partners, how do you anticipate this participation will affect your credit rating, if at all?

Response:

AOLP does not expect the First Nation or Métis equity participation to impact its credit rating. As a limited partnership, the general partner will control the management and operations of AOLP. The First Nation or Métis participation in the project will be limited to their equity investment, which they will be required to pay for using their own funds or separately secured financing arrangements.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #11

With respect to First Nation and Métis participation issues, please identify any First Nation and Métis communities you have initiated contact with, those you have met with, and those you have existing arrangements to meet with.

Response:

Contact was initiated with all 18 First Nation and Métis communities identified in the Minister's letter of May 31, 2011.

Of the 18 First Nation and Métis communities contacted, meetings occurred with representatives of 12 of the communities. These are:

Community	Representative
Ginoogaming First Nation	Chief Celia Echum
Ojibways of Garden River	Chief Lyle Sayers, Utility Commission , Economic Development Group
Ojibways of Batchewana	Chief Dean Sayers, Councilor & Elder Greg Agowa, CAO Cathy Connor, Senior Policy Analyst Cathy Alisch, Dan Sayers and two other representatives
Fort William First Nation	Chief Peter Collins
Missanabie Cree First Nation	Chief Kim Rainville and Councilor Eddy Robinson
Sand Point First Nation	Diane Marcale Nadjiwon
Long Lake First Nation	Chief Allan Towegishig
Ojibways of Pic River	Councilor Art Fisher
Red Sky Independent Métis Nation	Donelda DeLaRonde and Susan Blekkenhorst
Thunder Bay Métis Council	Cam Burgess, MNO Councilor for Region 2 Councilor
Superior North Shore Métis Council	Cam Burgess, MNO Councilor for Region 2 Councilor
Greenstone Métis Council	Cam Burgess, MNO Councilor for Region 2 Councilor

In addition to the above Métis councils, AOLP met with representatives of the Métis Nation of Ontario.

It should be noted that 4 of the 6 communities that AOLP was unable to arrange meetings with are partners in the EWT Bamkushwada LP where there appeared to be a reluctance to meet with AOLP.

At this point in time, AOLP does not have any existing arrangements with any of the communities.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #12

Does your Consultation Plan treat engagement with First Nations and Métis communities, whose traditional territories will be crossed by the proposed East-West Tie route, on an equivalent basis? Where there are differences in the proposed engagement between First Nations and Métis communities please explain and provide justification for the difference.

Response:

Yes, AOLP's proposed consultation plan (Part B, Section 10 of the AOLP Designation Application) treats engagement with First Nation and Métis communities on an equivalent basis.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #13

Please outline and provide examples of relevant experience the applicant has in undertaking procedural aspects of consultation with Métis communities in the context of the development, construction or operation of a transmission line or other large scale construction projects.

Response:

AltaLink has broad experience dealing with various Métis communities and organizations including the Métis Nation of Alberta (MNA) and its numerous regions, specific Métis communities, Métis settlements in Alberta and the broad Métis population across the province. AOLP understands Métis communities have their own desires for meaningful inclusion in the consultation process and our experience in Alberta is directly transferable to Ontario, particularly given the similar structure of Métis throughout Ontario.

AltaLink has consulted with numerous Métis communities within Alberta on a number of transmission project developments. These communities have primarily been within the MNA Regions 1, 2, 3 and 4, as well as with established Métis Settlements of Northeast Alberta: Buffalo Lake, Elizabeth, Fishing Lake, and Kikino. Consultation with the Métis has ranged from major developments, such as the 500 kV DC Western Alberta Transmission Line, and the 500 kV double circuit Heartland Transmission Project, to regional and standard projects across AltaLink's service area in Alberta.

AltaLink engages the representatives of the MNA and the Métis Settlements to develop and implement plans to consult with directly affected members of the Métis community, which have included traditional knowledge (TK) assessments. For example, AltaLink's Christina Lake Area Transmission Development occurring in northeastern Alberta has consultation ongoing with the four Métis Settlements in the area and MNA Regions 1 and 2. One settlement is conducting a TK study at this time. Meanwhile some settlements have discussed a higher level of collaboration amongst each other involving their provincial body, the Métis Settlements General Council which AltaLink is following up with. The MNA Regions 1 and 2 have jointly conducted a TK study for AltaLink, which has involved the input of various MNA Local Council members as well. Two of the MNA Region 1's Local Councils from Conklin and Fort McMurray have engaged AltaLink independently of the Regional body, and AltaLink is proceeding with local-specific action plans for consultation in these cases.

In addition, SNC-Lavalin has recent experience consulting with Métis that AOLP is able to draw upon. This includes experience on the following projects:

- Goldcorp Transmission Line Project (2010-2012) – Red Lake, ON
  - Meetings, consultation and an information session were held with Métis Nation Ontario for an electric power transmission line from Harry's Corner to Goldcorp's Balmer complex in Balmertown, Ontario.
- Provincial Road 304 to Berens River EA (2009-2011) - Manitoba

  - Met with Manitoba Métis Federation and communities for Traditional Knowledge information for incorporation into an EA document for an all-season road corridor from PR304 to Berens River. Métis communities were also involved in focused survey "Trappers-Wildlife Activity Survey" to build on previous studies focusing on traditional and local land use.
- East Side Lake Winnipeg All-Weather Road Transportation Study (2009-2011) - Manitoba
  - Meetings and consultation with Manitoba Métis Federation and communities.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #14

Is the applicant or any of its affiliates/partners aware of any outstanding claims, applications, reviews or other proceeding brought against it (them), as transmitter or otherwise, by a First Nation or Métis community who disputes the use or proposed use of land, including disputes related to consultation or accommodation, compensation, mitigation, remedial measures, or other similar claims? If so, please identify and describe.

Response:

No, AOLP and its affiliates are not aware of any outstanding claims, application, reviews or other proceedings brought against it by a First Nation or Métis community.

AOLP is aware that its affiliate in Alberta, AltaLink, is contracted to conduct operations and maintenance on certain assets owned by TransAlta Generation Partnership that are located on First Nation land. There is one project where a dispute is ongoing between TransAlta and the First Nation involved in the project. Legal action is on hold and AltaLink is not a named party. AltaLink is supporting TransAlta's efforts to negotiate a resolution to the issues.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #15

Has your proposed design has been utilized successfully in terrain and weather conditions similar to that of Northern Ontario? If not, please comment on the potential risks of your proposed design with respect to its use in Northern Ontario.

Response:

AOLP is very confident that our extensive design experience in similar weather and terrain conditions as in northern Ontario will ensure the success of this project.

AltaLink has constructed, operated and maintained transmission lines and related facilities through and on various types of terrain including native grassland, cultivated farmland, forest, muskeg, permafrost, foothills and the Rocky Mountains. These facilities are located on public and private land, First Nations and Métis lands and Provincial and National parks.

AltaLink transmission lines and related facilities are periodically exposed to winds in excess of 200 km/hr, tornadoes and severe snow and ice storms that create severe loading conditions. AltaLink transmission lines and related facilities in the Rocky Mountains are built on solid rock with severe elevation changes and experience loading, access and environmental challenges that meet or exceed those contemplated in the East-West Tie line project.

AOLP plans to design and construct the transmission line in accordance with AOLP's Designation Application Appendix 10 – AOLP Preliminary Transmission Line Technical Specification. AOLP's technical specifications meet or exceed the OEB's Minimum Technical Requirements and applicable industry codes and standards and are consistent with good utility practice.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #16

To the extent that your application includes a tower design not typically used in Ontario, please indicate whether the construction schedule in your application includes time for testing of new tower designs.

Response:

Yes, AOLP's construction schedule includes time for testing of new tower designs.

These tower testing activities are detailed in AOLP's Designation Application, Appendix 16 - East-West Tie Line Project Bid Schedule on Page 4 (Activity IDs E1018, E1058, E1068, E1078 and E1088).

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #17

The necessity for the requirement at paragraph 3.6.4 of the Board's Minimum Technical Requirements has been questioned. Please comment on the risk of single loop galloping and the cost of meeting the Board's requirement.

Response:

AOLP's proposed design in its Designation Application is based on meeting the OEB's Minimum Technical Requirements.

AltaLink operates and maintains a substantial transmission system, with many different types of structures and line configurations, exposed to a variety of weather conditions over many types of terrain. In our experience, galloping normally occurs in well-defined locations and under specific weather conditions. In locations where galloping is known to occur, AltaLink has successfully deployed cost-effective mitigation measures such as interphase spacers. While interphase spacers do not eliminate galloping, they have successfully reduced forced outages and damage to conductors from direct conductor contacts with no increase in maintenance requirements.

Given that data supplied by Hydro One indicates there have not been any forced outages on the existing East-West Tie lines due to conductor galloping in over twenty years, AOLP believes that inordinately large vertical framing dimensions and/or reduced span lengths are costly approaches to dealing with this risk.

AOLP recommends that both the risk of single loop galloping and the cost of various alternatives for mitigating galloping should be evaluated as part of the development phase of the project. Given that galloping may not occur at all, or may only occur as a localized phenomenon, it may be prudent (both cost-effective and technically feasible) to mitigate this risk with interphase spacers.

AOLP estimates that the incremental cost of meeting the Board's galloping requirement could range from millions to tens of millions of dollars. AOLP would be prepared to provide a more specific cost estimate to address the galloping risk during the development phase of the project.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #18

In your proposed design for the line, are there any space limitations that would restrict the ability of workers to maintain the new line?

Response:

No. The proposed design accommodates both de-energized and live-line maintenance methods including both hot-stick and bare-hand procedures.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #19

Different tower structures, foundations, tower spacing, etc. were proposed in the various applications. What were the applicant's design assumptions (e.g. right-of-way spacing from Hydro One Networks Inc. ("HONI")'s assets, tower height, span length, foundation, etc.) to avoid any adverse impact to HONI's transmission system, including: (i) in the event of a catastrophic failure of the proposed new line; and (ii) access by HONI to the existing transmission line for routine maintenance and service restoration?

Response:

AOLP does not expect its design to have any adverse impact on HONI's facilities. AOLP plans to design and construct the transmission line in accordance with AOLP's Designation Application Appendix 10 – AOLP Preliminary Transmission Line Technical Specification. AOLP's design assumptions with respect to access by HONI to the existing transmission line for routine maintenance and service restoration included:

- Technical specifications meet or exceed the OEB's Minimum Technical Requirements and applicable industry codes and standards and are consistent with good utility practice;
- AOLP's design has its own right-of-way that will not infringe on HONI's right-of-way, other than during construction for temporary workspace which would be negotiated with HONI. AOLP assumed HONI's existing right-of-way is sufficient to accommodate its routine maintenance and service restoration;
- For any line crossings, AOLP would negotiate access and crossing agreements with HONI, consistent with standard utility practice; and
- Operations and maintenance on the new line can be conducted within the AOLP right-of-way.

AOLP's preliminary design work with respect to the separation distance between the proposed new line and HONI's existing facilities took into consideration worst case conductor swing clearance, helicopter setting distance (assumed to be 22 m) and crane/bucket access to the top arm of the existing HONI towers, as well as the proposed towers. AOLP will consult with HONI regarding additional requirements during detailed engineering.

During the development phase of the project, AOLP will consult with HONI regarding any additional operation, maintenance and restoration requirements. In the detailed design of the towers (construction phase of the project), AOLP will investigate the failure mode of the new towers and consult with HONI regarding their recommendations.

The design of the East-West Tie is in accordance with the reliability requirements of the OEB. Any loading event that causes a catastrophic failure (in the unlikely event that one occurs), will also likely affect the adjacent HONI facility. Restoration of the two lines will have to be a joint effort between AOLP and HONI in response to such an event. Failure modes of the towers will be discussed with HONI once AOLP has completed detailed engineering and testing of the proposed transmission towers.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #20

With respect to the construction, operation and maintenance of the new transmission line, what were the applicant's assumptions to avoid any adverse impact to HONI's transmission system, including: (i) in the event of a catastrophic failure of the proposed new line; and (ii) access by HONI to the existing transmission line for routine maintenance and service restoration?

Response:

AOLP does not anticipate any adverse impact with respect to HONI's access to the existing transmission line for routine maintenance and/or service restoration. AOLP has designed the new line to allow for all operation and maintenance activities to take place within the right-of-way. AOLP has also assumed that HONI's right-of-way for the existing line allows for its operation and maintenance activities to take place within its right-of-way, thus, AOLP does not expect any conflict with HONI's transmission system.

The design of the East-West Tie is in accordance with the reliability requirements of the OEB and any loading event that causes a catastrophic failure (in the unlikely event that one occurs), will also likely affect the adjacent HONI facility. Restorations of the two lines will have to be a joint effort between AOLP and HONI in response to such an event. Failure modes of the new towers will be jointly discussed with HONI once AOLP has completed detailed engineering and testing of the proposed transmission towers.

AltaLink has substantial experience with respect to the construction, operation and maintenance of transmission facilities that are both adjacent to, and parallel to, existing high voltage transmission lines.

Refer also to response to All Applicants IR #19.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #21

The Independent Electricity System Operator ("IESO") indicates that the double-circuit line described as the Reference Option has several benefits over the single-circuit option. These include:

- a higher thermal rating (up to about 800 MW) that can be exploited for future expansion by adding more voltage control or compensation equipment;
- a higher level of reliability because of its inherent redundancy (2 circuits to one, a lower exposer to common-mode failures, more flexibility to perform line and terminal maintenance);
- less reliance on voltage control and compensation equipment, and special protection systems;
- less electrical equipment involved and less risk of equipment failure; and
- a higher level of operating security as described in section 16 of the IESO's August 2011 Feasibility Study.

Are there any beneficial attributes of the single-circuit option, other than reduced cost? Are there other benefits of the double circuit line that are not listed above?

Response:

AOLP is not aware of any other beneficial attributes of the single-circuit option.

With respect to the benefits of the double-circuit line, the IESO August 2011 Feasibility Study states the following on page 7:

> ***Relative Merits of a new High-Capacity Single-Circuit line versus a new Double-Circuit line***
>
> *One-plus-One Contingency*
>
> The NERC, NPCC & IESO criteria all refer to a requirement to respect a second single-element contingency after experiencing an initial single-element contingency or outage, with control actions being taken between the two events to adjust the flows.
>
> With the East-West Tie reinforced with a new single-circuit line, it would therefore be necessary, immediately following a contingency or outage involving this new line, to re-prepare the system for the loss of one of the circuits on the remaining double-circuit line.
>
> Since the loss of the new single-circuit line would leave only the existing double-circuit in-service over the affected section, the transfer capability of the East-West Tie would therefore be reduced to the present limit for a *single- circuit contingency* of 350MW.
>
> Since the targeted transfer capability of the reinforced East-West Tie is 650MW, a reduction to 350MW following the loss of the new single-circuit line would therefore require either additional generating resources totaling at least 300MW to be dispatched, or if there were the capability to arm load rejection of up to 150MW in response to the second contingency, then

this would allow a corresponding lesser amount of generation to be dispatched.

Increasing the transfers via the Interconnections with Manitoba and Minnesota would also allow the amount of generation capacity that would need to be dispatched to be reduced.

All of these control actions would comply with the IESO's criteria.

Reinforcing the East-West Tie with a new double-circuit line would require no similar actions following the loss of either of the double-circuit lines (a simultaneous One-plus-One contingency) or the loss of one circuit of one of the lines followed by the loss of one of the circuits of the companion line.

For the One-plus-One contingency condition, the installation of a new double-circuit line to reinforce the East-West Tie would therefore represent the superior option.

Proceeding with the development of only a single-circuit (S/C) line creates significant disadvantages compared to the referenced option of a double-circuit (D/C) line. The key considerations include providing the required capacity and the associated cost, security and system losses with each alternative. With reference to the IESO's Planning Criteria, the condition particularly onerous for the S/C option is Category event P6, a multiple contingency (two overlapping singles) involving the loss of one transmission circuit, followed by system adjustments, and then the subsequent loss of another transmission circuit. Figure 1 portrays the normal condition and Figure 2 portrays the loss of two circuits (N-1-1):

Figure 1 S/C Development – Normal Condition

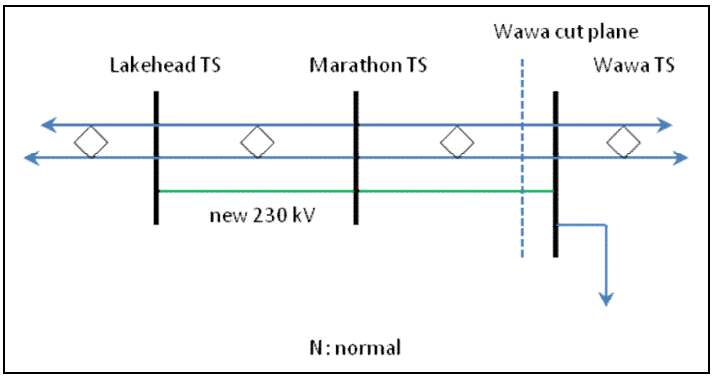
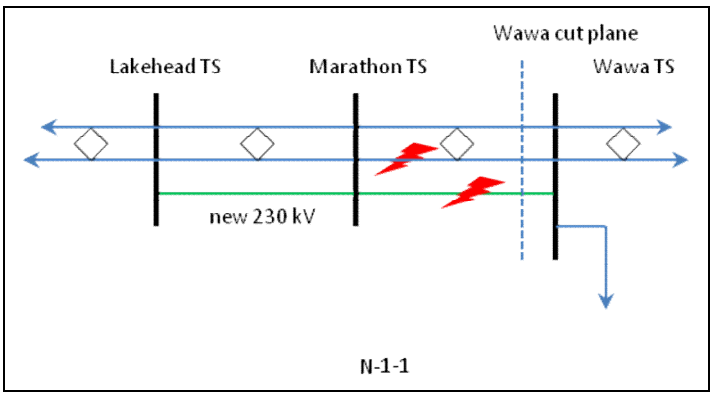


Figure 2 S/C Development – P6 Event N-1-1

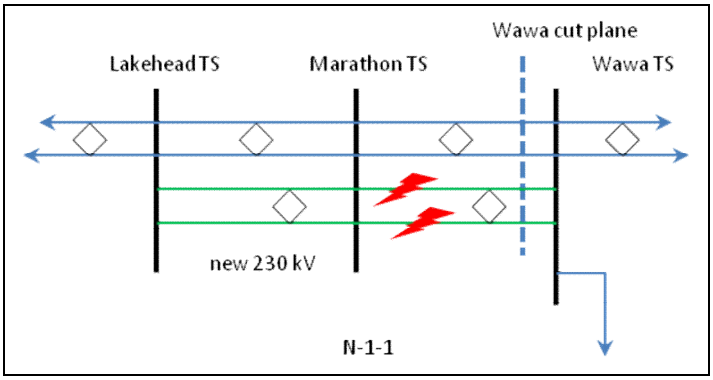


As shown in Figure 2 above with the S/C development in place, the P6 event (N-1-1) leaves only one of the existing circuits in place providing a transfer capability of only 350 MW. As noted by the IESO, some form of control action is subsequently required, consisting of generation dispatch, load response or an increase in imports across the existing tie-lines. Separately or in combination, these control actions must replace 300 MW of lost transmission transfer capacity.

Since it is impossible to predict when a forced outage may occur, adequate control actions must not only be held in reserve at all times, but must be coordinated and contracted in advance. Generation capacity held in reserve, load response and/or imports which flow in response to contingencies are typically contracted as "ancillary services" if they are available at all. These ancillary services are not typically provided for free, and may cost as much as tens of millions of dollars per year. If these control actions are available in sufficient quantity, and the costs are quantifiable, the present value of these ancillary services must be factored into the lifecycle cost of all S/C alternatives, at least until additional facilities are constructed or the topology of the system changes such that these control actions are no longer required.

With regards to system security, the D/C option provides an inherent increased level of reliability. This is shown in Figure 3 below:

Figure 3 D/C Development – P6 Event N-1-1



For the same P6 event, two circuits are still available to transfer power, rather than one for the S/C option.

The IESO August 2011 Feasibility Study states the following on page 31:

> *Reinforcing the East-West Tie with a new double-circuit line would therefore offer a higher level of security since, from the planning perspective, the initial loss of the two elements of the double-circuit line would provide acceptable performance, in accordance with the prevailing standards, while requiring no control actions to be taken following the initial loss of either of the double-circuit lines.*

Finally, there is the consideration of system losses. The power flow diagrams provided by the IESO in the Feasibility Study (Diagram 1 & 18) indicate higher system losses under normal conditions for the S/C option.

In conclusion, the present value of the incremental cost of losses (volume x price forecast) over the lifecycle of the project plus the present value of the control actions over the lifecycle of the project must be taken into consideration in any economic comparison of the S/C and D/C options. It must also be understood that regardless of the outcome of any economic evaluation of S/C versus D/C options, the S/C option will never provide the same level of security and reliability to Ontario consumers and ratepayers as the D/C option.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #22

The IESO suggests that to assess whether a proposal will satisfy IESO reliability criteria at the required transfer level, some characteristics for proposals must be available. What is the a.c. resistance (at 20°C), reactance and susceptance (i.e. R, X, B) for each circuit of the Wawa to Marathon and Marathon to Lakehead sections of the new line(s)?

Response:

Section from Wawa to Marathon (estimate distance 170 km)

		Positive sequence impedance data ohms value			Positive sequence impedance data p.u value (100MVA and 230kV base)		
		R1 (Ohms)	X1(Ohms)	B1(Mhos)	R1	X1	B1
Option 1	Non-Galloping Lattice Tower Single 1192.5 Grackle and 7#5AWG OHSW Typical Ruling Span is 420 m	8.5273	84.192	0.0005698	0.016119	0.15915	0.30143
Option 2	Galloping Lattice Tower Single 1192.5 Grackle and 7#5AWG OHSW Typical Ruling Span is 420 m	8.531	87.223	0.00055007	0.016127	0.16488	0.29099
Option 3	H-Frame (Altalink Str# 5144-9) Single 1192.5 Grackle and 7#5AWG OHSW Typical Ruling Span is 240 m	8.5487	80.923	0.00059259	0.01616	0.15297	0.31348

Section from Marathon to Lakehead (estimate distance 230 km)

		Positive sequence impedance data ohms value			Positive Sequence impedance data p.u value (100MVA and 230kV base)		
		R1(Ohms)	X1(Ohms)	B1(Mhos)	R1	X1	B1
Option 1	Non-Galloping Lattice Tower Single 1192.5 Grackle and 7#5AWG OHSW Typical Ruling Span is 420 m	11.537	113.91	0.00077091	0.021808	0.21532	0.40781
Option 2	Galloping Lattice Tower Single 1192.5 Grackle and 7#5AWG OHSW Typical Ruling Span is 420 m	11.542	118.01	0.00074422	0.021818	0.22308	0.39369
Option 3	H-Frame (Altalink Str# 5144-9) Single 1192.5 Grackle and 7#5AWG OHSW Typical Ruling Span is 240 m	11.566	109.48	0.00080175	0.021864	0.20696	0.42412

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #23

In the IESO Feasibility study of August 2011, the IESO indicates that it assumed a route length of approximately 400 km, and used electrical circuit parameters representative of that length of route. For transmitters proposing alternative paths that vary 40 km or more in length from the reference 400 km, please comment as to whether the change in length will materially alter the electrical parameters of the line and whether the targeted transfer capability can still be achieved.

Response:

AOLP did not propose alternate routes that vary 40 km or more in length from the reference route (400 km).

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #24

For transmitters proposing to use 230 kV class equipment, please indicate whether the design you propose will be capable of continuous operation up to 250 kV as required by the IESO's Market Rules.

Response:

Confirmed. AOLP does not plan to use 230 kV class equipment. The East-West Tie line will be capable of operation up to 250 kV or higher as required by the IESO's Market Rules.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #25

Please describe any differences between the inputs that went into the Feasibility Study on record and your proposed design.

Response:

AOLP's design is based on the Reference Option. AOLP is not aware of any differences between the inputs that went into the Feasibility Study on record and AOLP's proposed design.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #26

Please complete the following three tables to enhance cost comparability between applications. Applicants should provide the cost estimates based on their preferred option for the line. Where the preferred option is not the reference option, the tables should also be provided for the reference option.

In completing the tables, please assume the following:

- All figures should be stated in 2012 dollars, without escalation in labour, materials or other costs.
- The development phase ends with the filing of a leave to construct application with the Board
- Taxes and duties should be excluded.

Response:

Development – The references to the AOLP Designation Application in the table below are to the line items in Table 8.2-1 of the Designation Application. Table 8.2-1 is reproduced following this table for ease of reference.

Development Activity	**Estimated Cost**	**Reference in Filed Designation Application** (from Table 8.2-1 of Designation Application, reproduced below)
Engineering, design, and procurement activity	$9,410,000	Item 4 + Item 5 + Item 6 + Item 7 + Item 12*2/3
Materials and equipment	$0	
Permitting and licensing	$200,000	Item 12*1/3
Environmental and regulatory approvals	$3,755,000	Item 2 + Item 3
Land rights (acquisition or options), including consultation and negotiation with landowners	$505,000	Item 10*1/2
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)	$510,000	Participation element from Item 11
First Nation and Métis consultation	$1,640,000	Balance of Item 11
Other consultation (community, stakeholder)	$505,000	Item 10*1/2
IDC or AFUDC (if included in estimates)	$0	
Contingency	$1,652,500	Item 14
Other (explain in detail)	$0	
Total	$18,177,500	

Table 8.2-1 East-West Tie Line Development Cost Estimate

AOLP - EWT Development Cost Estimate		
Item	**Description**	**Cost**
1	Designation Application	$0
2	Regulatory & Legal for Designation Hearing and LTC Preparation	$425,000
3	Environmental Assessment (Provincial EA)	$3,330,000
4	Project Management	$1,580,000
5	Survey, LIDAR and GIS Services	$1,900,000
6	Transmission Line Routing & Tower Spotting	$3,990,000
7	Engineering & Design	$1,540,000
8	Procure Material & Equipment	$0
9	Land Acquisition	$0
10	Public Consultation	$1,010,000
11	First Nations & Métis Consultation and Participation	$2,150,000
12	Owner's Costs	$600,000
13	Sub-total	$16,525,000
14	Contingency (10%)	$1,652,500
15	Total	$18,177,500

Table Notes

(a) Cost based on 2012 dollars and an in-service date of November 2018.
(b) Designation Application costs to January 4, 2013 are borne by AOLP.
(c) Designation hearing costs will be recovered as part of development cost if AOLP designated.
(d) In-service date can be advanced if some activities are performed prior to LTC approval:
- procurement of long lead time materials; and
- new tower family design, fabrication and testing.

(e) No land acquisition prior to receipt of LTC approval.
(f) Public consultation includes public, agency, municipal, landowner and other stakeholders.
(g) First Nation and Métis consultation and participation costs:
- AOLP is offering up to 49% equity participation at fair market value; and
- brushing, surveying and construction must be performed at competitive rates.

(h) Owner's costs for oversight of routing, environmental, project management and engineering.
(i) Contingency at 10 percent.

Construction — The references to the AOLP Designation Application in the table below are to the line items in Table 8.7-1 of the Designation Application. Table 8.7-1 is reproduced following this table for ease of reference.

Construction Activity	**Estimated Cost**	**Reference in filed Designation Application** (from Table 8.7-1 of Designation Application, reproduced below)
Engineering, design, and procurement activity	$12,403,200	Part of Item 1
Materials and equipment	$125,059,200	Item 2
Permitting and licensing	$200,000	Part of Item 1
Environmental and regulatory approvals	$1,810,000	Part of Item 1
Land rights (acquisition or options), including consultation and negotiation with landowners	$11,970,000	Part of item 1
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)	$1,000,000	Part of Item 1
First Nation and Métis consultation	$720,000	Part of Item 1
Other consultation (community, stakeholder)	$350,000	Part of Item 1
Site clearing and preparation	$33,268,000	Item 3
Construction	$261,497,600	Item 4 + item 5 + Item 6 + Part of Item 1
Site remediation	$5,820,000	Item 3
IDC or AFUDC (if included in estimates)	$0	
Contingency	$0	
Other (explain in detail) e.g. CWIP	$0	
Total	$454,098,000	

Table 8.7-1 East-West Tie Line Construction Cost Estimate

AOLP - EWT Construction Cost Estimate		
Item	**Description**	**Cost**
1	Other Costs - Project Management, Construction Management, Construction Environmental Management Plan, Engineering & Design, Tower Family Design & Test, Geo-tech Investigation, Public consultation, First Nation and Métis Consultation and Participation, Land Acquisition, Regulatory and Owner's Costs	10%
2	Material Procurement	27%
3	Labour & Equipment - Clearing and Access	9%
4	Labour & Equipment - Foundations	23%
5	Labour & Equipment - Assembly and Erection	21%
6	Labour & Equipment - Stringing	10%
7	Sub-total	100%
8	Contingency (0%)	$0
9	Total	$425-550 million

Table Notes
(a) Cost based on 2012 dollars and an in-service date of December 2018.
(b) Cost does not include contingency, escalation or allowance for funds used during construction
(c) In-service date can be advanced if some activities are performed prior to LTC approval:
- procurement of long lead time materials; and
- new tower family design, fabrication and testing.

Operation and Maintenance – The references to the AOLP Designation Application in the table below are to the line items in paragraphs 310-312, Section 8.12 of the Designation Application. Paragraphs 310-312, Section 8.12 are reproduced following this table for ease of reference.

Operations and Maintenance Activity	**Estimated Cost**	**Reference in Filed Designation Application** (from Section 8.12 of the Designation Application, reproduced below)
Major activities (please list, but cost estimate may be bundled)		
Operations	$650,000	Section 8.12
Maintenance	$780,000	Section 8.12
Administration and general costs related to O&M	$270,000	Section 8.12
Regulatory costs	$0	
Contingency	$0	
Total	$1,700,000	Section 8.12

Paragraphs 310-312, Section 8.12 of the Designation Application

310. AOLP expects the long-term operations and maintenance costs of the East-West Tie Line to be relatively small compared with construction costs. AOLP has estimated operations and maintenance costs to average approximately $1.7 million ($2012) per year. This estimate is based on extensive experience with similar facilities and excludes catastrophic events and customary capital maintenance expenditures. AOLP proposes to treat these costs in the typical regulated cost of service manner.

311. The estimated operations and maintenance expense in any given year is expected to range between $1.0 ($2012) and $2.5 million ($2012). This range is explained by the magnitude and timing of the cyclical right of way maintenance work which is expected to account for approximately 85% of annual maintenance expense and has been timed such that costs are spread over multiple years.

312. The estimate includes direct maintenance costs such as line inspections, hardware replacements and vegetation management, as well as indirect costs such as engineering support, supervision and an allocation of administration.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #27

a) Please confirm that while costs may be reaggregated into the specified categories, the amounts in the tables are consistent with the overall estimates filed in your application.

b) Please reconcile each of the development, construction and operation phase totals produced in the tables with the total costs for each of these phases put forward in your application. The reconciliation should describe and quantify each reconciling element.

Response:

a) Confirmed

b) **Development**
The reconciliation is as described in the table provided in response to All Applicants IR #26.

Construction
The reconciliation is as described in the table provided in response to All Applicants IR #26.

AOLP filed an estimated construction budget in a range between $425-550 million and expressed the cost of each line item in the estimate as a percentage of the total in accordance with OEB Filing Requirement 8.7. In response to All Applicants IR #26, AOLP has provided the actual estimate, identifying both the total and each line item as requested by the OEB in order to enhance cost comparability between applications. The range around the estimated cost of $454 million reflects the uncertainties associated with providing a preliminary estimate at this early stage of project development. As noted in AOLP's Designation Application on page B-111, these uncertainties include:

- design of suitable crossovers with existing transmission/distribution facilities to satisfy reliability criteria and respond to issues related to ownership of the facilities being crossed;
- assumptions related to specific foundation conditions at proposed structure locations along the line route;
- encountering unanticipated environmental conditions or historical and archaeological artifacts;
- potential route changes and other issues that may be raised through the stakeholder consultation process;
- unusually adverse weather conditions; and
- availability of existing access roads including access to and along the existing transmission line right of way.

Operation and Maintenance
The reconciliation is as described in the table provided in response to All Applicants IR #26.

AOLP filed an estimated average annual cost of operating and maintaining the line of $1.7 million and noted that in any given year, the cost is expected to range between $1.0-2.5 million.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #28

For each phase, please describe how the contingency amounts were determined.

Response:

Development
Contingency was calculated as ten percent of the total cost estimate.

Construction
Contingency was not included in AOLP's estimated construction budget. AOLP felt that expressing the budget as a range of costs was more appropriate than providing a point estimate plus contingency given the level of project information available at the time. As AOLP moves through the development stage and better defines and clarifies the risks involved in project execution, AOLP will develop a point estimate that includes contingency.

Operation and Maintenance
Contingency was not included in AOLP's estimated average annual operation and maintenance budget. AOLP felt that expressing the budget as a range of costs was more appropriate than providing a point estimate plus contingency given the level of project information available at the time. As AOLP moves through project execution and better defines requirements such as ongoing right-of-way maintenance and the operations agreement with HONI, we can develop an estimate of annual costs that includes contingency.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #29

With respect to operation, maintenance and administration costs, please indicate whether the applicant's stated OM&A costs are estimated on a standalone basis (i.e. the full OM&A costs of the line) or on a net basis (i.e. excluding costs incurred by affiliates or other regulated utilities providing services to the applicant). If on a net basis, please provide in detail the applicant's estimated OM&A costs on a standalone basis.

Response:

AOLP estimated the average annual OM&A cost on a standalone basis. The AOLP estimate does not include any costs that may be incurred by Hydro One to provide line power flows, status, fault locations or remote monitoring of the line as these costs will remain uncertain until an operating agreement is established between the parties.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #30

With respect to the provision of services by HONI:

a) What specific services were assumed in the application?
b) What were the assumed associated costs?
c) In the absence of any input from HONI, on what basis were these assumptions made?
d) What is the impact on the application if the assumed services are not provided by HONI as envisioned by the applicant?

Response:

AOLP's plan for the line is based on the Reference Option. No services or station work were assumed beyond those required for the Reference Option.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #31

With respect to the use, modification or expansion of HONI's stations:

a) What specific uses, modifications or expansions were assumed in the application?
b) What were the assumed associated costs?
c) In the absence of any input from HONI, on what basis were these assumptions made?
d) What is the impact on the application if the assumed uses, modifications or expansions do not proceed as envisioned by the applicant?

Response:

AOLP's plan for the line is based on the Reference Option. No services or station work were assumed beyond those required for the Reference Option.

AOLP Response to Interrogatory Questions to all Applicants

Interrogatory #32

Please complete the following tables, detailing all transmission projects greater than 100 km in length, undertaken by the applicant, its partners, shareholders, affiliates, or any other entities which the applicant is relying on for the purposes of its application, in the past 10 years in all jurisdictions. Please provide the reasons for the budget and schedule variances for each project.

a. Budget Variance Table

Name of project	Details of project	Budgeted cost	Stage of process at which budget created	Actual cost	Variance	Reason for variance

b. Schedule Variance Table

Name of project	Details of project	Estimated development and construction time	Stage of process at which time estimate made	Actual development and construction time	Variance	Reason for variance

Response:

a. Budget Variance Table

Name of project	**Details of project**	**Budgeted cost**	**Stage of process at which budget created**	**Actual cost**	**Variance**	**Reason for variance**
Western Alberta Transmission Line (WATL) 347 Km, 500 kV, HVDC NSB53A steel lattice 4x1590 kcmil Falcon	Construct approximately 347 km of new 500 kV HVDC transmission line in bi-pole configuration between Edmonton (Genesee) and Calgary (Langdon). 50 kV HVDC monopole converter stations will be built at both ends. Existing 500 kV, 240 kV and 138 kV lines around Genesee and Langdon will also be reconfigured as per the requirements of this project.	$1,424 M	- *see note 1*	TBD - *see note 2*	TBD - *see note 2*	**Current project progress:** • Site preparation, clearing and access well underway • Early civil works, foundations and piling under way • Temporary substations construction progressing • Some major equipment delivered • No significant variances expected
Southern Alberta Transmission Reinforcement - Cassils-Bowmanton (SATR - CB) 130 Km, 240 kV, double circuit, RB22A steel lattice 2x1033 kcmil Curlew	Build approximately 130 km of 240 kV double circuit transmission line 1034L/1035L from Cassils 324S substation to Bowmanton 244S substation. Terminate six 240 kV transmission lines from Milo 356S (923L/935L), West Brooks 28S (1051L/1052L) and Bowmanton 244S (1034L/1035L) into Cassils 324S. Construct a new Bowmanton 244S substation in the vicinity of Chappice Lake substation. Build new Cassils switching station 324S southwest of West Brooks substation 28S.	$ 360 M	- *see note 1*	TBD - *see note 2*	TBD - *see note 2*	**Current project progress:** • Partial energization of sections to Cassils substation • Foundations, assembly and erection of structures significantly completed • Cassils substation energized and telecommunications completed • Construction of Bowmanton substation underway • No significant variances expected

Southern Alberta Transmission Reinforcement - Bowmanton - Whitla (SATR - BW) 110 Km, 240 kV, double circuit, RB22A steel lattice 2x1033 kcmil Curlew	Construct approximately 110 km of new 240 kV double circuit transmission line 964L/983L from Bowmanton 244S substation to Whitla 251S substation. Terminate two new 240 kV transmission lines 964L/983L into Bowmanton 244S substation and Whitla 251S substation. Build a new 240 kV Whitla 251S switching station with six 240 kV circuit breakers.	$ 311 M	*- see note 1*	TBD *- see note 2*	TBD *- see note 2*	**Current project progress:** • Foundations, assembly and erection of structures significantly completed • Whilta substation site preparation and foundations underway • No significant variances expected
SouthWest Transmission Development 96 Km, 240 kV, double circuit, steel lattice (HW) 2 x 477 kcmil Hawk	Build a new 240 kV double circuit line from Goose Lake substation, 103S, to Peigan substation, 59S. Expand the 240 kV bus at 59S to accommodate four new 240 kV lines. Re-terminate 911L at 59S. Construct a new 240 kV double circuit line from 59S to Lethbridge substation, 370S. Replace the 138/69 kV transformers at Pincher Creek 396S, Magrath 225S, Drywood 415S. Make 138 kV System changes including 170L & 725L Connection, 66L rebuild to 138 kV (820L) and add 138/69 kv transformer at Stirling 67S, Salvage Tempest 403S, Fort MacLeod 170W breaker replacement, re-conductor about 2 km of 170L (renaming to 616L) from Kettles Hill 383S tap. Build a new 240/138 kV substation 103S, re-terminate 164L, 893L & 170L (616L) into 103S, 138 kV tie line (613L) Pincher Creek 396S to 103S.	$133 (Revised application estimate 2007)	*- see note 1*	$216 M	$ 83 M	The variance is chiefly due to protracted delays as outlined below, in addition there were a number of requested/approved scope changes throughout the project that accounted for the balance of variances ~$13M: **1-Project Delay - From 2007 Facility Application to 2009 receipt of Permits & Licenses ($16M):** Costs associated with escalation and AFUDC from the time that the Facility Application was filed to the May 2009 Permit & License. **2 – Project Delay – Routing Changes, Weather & Environmental Effects ($46 M):** AltaLink managed the re-routing of transmission lines and delays in construction in order to meet changes in requirements from First Nations; despite having secured AANDC agreements from Band Councils during the 2007 Facility Application Process.

						Variance costs associated with this new requirements included: Additional costs included: • Accommodation of two major re-routings on Blood and Piikani reserves resulting in increased line length and use of costlier deadend and angle structures • Standby charges while waiting for denied/restricted access resolution with individuals • Altered construction progression to no linear/efficient progression • Concomitant engineering, design, procurement and overhead costs Record rainfall in Southern Alberta in 2010 delayed construction and required additional safeguards and measures to execute the work (i.e. helicopter use, heating, snow removal, installation of protective mats etc.). In June 2010 state of emergency were declared as rainfall ranged from 207% - 355% above normal during April to June 2010. Delays encroached into building blackout periods for nesting birds in accordance with the Endangered Species Act (May-Aug 2010 de-mobilization)

						3- Project Delay - Market Conditions ($21 M): Construction labour and materials increased significantly between the 2007 Facility Application and the 2009 Permit & License. In the local market place general construction wages increased by 27% from 2007-2010. Escalation experienced in the various categories: • Labour $13 M • Land easement $6 M • Materials 1.5 There were a number of additional scope changes for the project from AESO
Notes:	1 - Cost estimates created in support of the Facility Application (FA) to the Alberta Utilities Commission (AUC). Budget estimates range + 20% / -10%					
	2 - WATL, SATR-CB & SATR-BW projects are currently under construction. Final actual costs and variances to budgeted costs are not yet available.					

b. Schedule Variance Table

Name of project	**Details of project**	**Estimated development and construction time**	**Stage of process at which time estimate made**	**Actual development and construction time**	**Variance**	**Reason for variance**
Western Alberta Transmission Line (WATL)	See cost variance table above	**Development:** 28 mos (Sep '09- Jan '12) **Construction:** 30 mos (Mar '12 – Sep '14) **Energization:** Apr '15 *- see note 3*	*- see note 4*	**Development:** Sep '09 – Dec '12 *- see note 5*	**Development:** ~11 mos See variance explanation **Construction Start:** Jan '13	*AUC hearing delayed due to a provincial review of Critical Transmission Infrastructure (CTI) projects.* **Current project progress:** • Site preparation, clearing and access well underway • Early civil works, foundations and piling under way • Temporary substations construction progressing • Some major equipment delivered
Southern Alberta Transmission Reinforcement - Cassils-Bowmanton (SATR - CB)	See cost variance table above	**Development:** 29 mos (Mar '09-Aug '11) **Construction:** 27 mos (Sep'11-Dec '13) **Energization:** Mar '14	*- see note 4*	**Development:** 26 mos (May '09 – Jul '11) *- see note 5*	**Development:** On schedule **Construction Start:** On schedule, Sept '11 *- see note 5*	**Current project progress:** • On or slightly ahead of schedule to meet energization date • Partial energization of sections to Cassils substation • Foundations, assembly and erection of structures significantly completed • Cassils substation energized and telecommunications completed • Construction of Bowmanton substation underway • No significant variances expected

Southern Alberta Transmission Reinforcement - Bowmanton - Whitla (SATR - BW)	See cost variance table above	**Development:** 29 mos (Mar '09-Aug '11) **Construction:** 25 mos (Dec '11-Jan '14) **Energization:** Mar '14	*- see note 4*	**Development:** 26 mos (May '09 – Jul '11) *- see note 5*	**Development:** On schedule **Construction Start:** On schedule, Sept '11 *- see note 5*	**Current project progress:** • On or slightly ahead of schedule to meet energization date • Foundations, assembly and erection of structures significantly completed • Whilta substation site preparation and foundations underway • No significant variances expected
SouthWest Transmission Development	See cost variance table above	**Development:** 9 mos (Jun '05 – Feb '06) **Construction:** 8 mos (Apr '06 – Nov '06) • *Additional area improvement construction to Feb '07* **Energization:** Nov '06 *- see note 3*	*- see note 4*	**Development:** 46 mos (Jul '05 – May '09) **Construction:** 16 mos. (Jul '09 – Nov '10) **ISD:** Nov '10	**Development:** ~35 mos See variance explanation	• AESO assignment expected May '05; Actual was Nov '06 • AESO revision to functional spec and needs amendment occur in Q2 2006 delaying FA application until Aug '07 – Original schedule called for an Oct '05 filing • Facility application review period spanned from Aug '07 to Mar '09 (20 mos) including hearings • Construction begun in summer of '09 and accommodated for two major re-routes around First Nations lands in Sep '09 and Jan '10 • Construction was suspended between May '10 and Aug '10 due to weather & environmental effects • See Cost variance table above for further specific details
Notes:	3 - Development includes the following major stages: • Project Initiation • Facility Application Submission, • Permit & License Approval Construction includes the following major stages: • Construction, • Energization (In Service Date - ISD), • Closeout					
	4 - Estimates created in support of the Facility Application (FA) to the Alberta Utilities Commission (AUC). Budget estimates range + 20% / -10%					
	5 - WATL, SATR-CB & SATR-BW projects are currently under construction. Final schedule, durations and timeline variances are not yet available.					

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #1

With respect to AltaLink Alberta's partnership with the Piikani and Blood First Nations, what is the governance structure of the resulting entity?

Response:

There are separate partnerships with each of the Piikani and Blood First Nations. In each case the structure is a limited partnership wherein the liability of each limited partner for the debts, liabilities and obligations of the partnership is limited to its capital contribution plus its pro rata share of any undistributed income of the partnership. In each case, AltaLink Management Ltd. is the general partner of the partnership.

In addition to the Limited Partnership Agreements, the partnerships include Project Commitment and Option Agreements and Facilities Operations Accords. These agreements include the following provisions:

- establish an effective ongoing working relationship in a spirit of mutual respect for the goals and aspirations of each party;
- provide mechanisms through which effective communications, consultation and cooperation can take place; and
- provide opportunities for enhancing the First Nation business community by creating opportunities to provide commercial services to the project.

The agreements provide for the establishment of a joint committee which meets on a regular basis to facilitate ongoing communication and consultation, identify opportunities for First Nations businesses, and recommend strategies and plans for implementation of obligations outlined in the agreements and permits.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #2

ATL has developed draft Terms of Reference and study plans for the individual EA study components. To what extent, if any, were First Nation and Métis involved in the development of these documents and how was their input taken into account?

Response:

Much like the Board would provide a draft policy as a starting point for public consultations on that policy, AOLP has prepared the draft Terms of Reference and study plans for the Individual EA study components are intended to serve as a "starting point" framework for discussions, after designation by the Board, with Ontario Ministry of the Environment, First Nations, Métis and other stakeholder groups.

In this regard, it is worth noting that pages 2-3 of the draft Terms of Reference (Appendix 13 of the AOLP Designation Application) states:

> The Proponent has prepared a preliminary draft of the ToR based on the "Codes of Practice for Preparing and Reviewing Terms of Reference" (OMOE 2009). The draft ToR will be a starting point for the consultation process. On average, proponents take from six to nine months to prepare the ToR (OMOE 2009). By preparing a draft ToR at this stage, the proponent demonstrates knowledge of all components of the EA from the initial consultation stage to completion and approval of the EA. With the draft ToR as a starting point for the consultation process, it is expected that the ToR can be prepared for formal submission in approximately four months, potentially reducing the approval process time by two to five months.
>
> In preparing the ToR (Section 6 of the EA Act) proponents are required to:
>
> - Consult with OMOE Environmental Assessment and Approvals (EAA) Branch staff to discuss preparation, consultation and submission requirements;
> - Identify government ministries and agencies, municipalities, members of the public, Aboriginal communities, and other persons who may have an interest in their proposal;
> - Engage in meaningful consultation with all interested persons to identify and respond to needs and concerns;
> - Establish reasonable time frames for feedback and review during the consultation process;
> - Ensure that issues and concerns are identified and considered early in the planning process before irreversible decisions are made;
> - Document the results of the consultation process; and
> - Prepare the Terms of Reference in consultation with the ministry, other government ministries and agencies, municipalities and all interested persons, including Aboriginal peoples.

There was no direct involvement by First Nations or Métis communities in the development of the current draft Terms of Reference. The process of finalizing the Terms of Reference will involve detailed discussions with First Nations and Métis communities and other stakeholders.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #3

In paragraph 58 of page 20 of its designation application, ATL suggests that certain First Nations and Métis communities have provided input that informed ATL's First Nations and Métis participation framework. Please clarify which First Nations and Métis communities provided the input regarding ATL's participation framework cited at Pages B-20-22 of ATL's designation application.

Response:

The table below provides the contacts AOLP made with Aboriginal communities regarding the project. The level of input varied from community to community with some providing general observations or insights while others provided more specific suggestions or desires. These ranged from expressions of interest in equity ownership, revenue sharing or royalty types of programs, contracting and employment as well as training and other learning opportunities. All of this information was considered in the development of AOLP's Aboriginal Participation Framework.

Community	**Contact Person**	**Date**
All Aboriginal communities (First Nation & Métis)	Chiefs & Métis Council Presidents	June, 2012
All First Nation Communities (14)	Chiefs (by introductory letter)	June 21, 2012
Ginoogaming First Nation	Chief Celia Echum	June 27, 2012
Ojibways of Garden River	Andy Richards	June 27, 2012
Ojibways of Batchewana	Chief Dean Sayers and elder & councilor Greg Agowa	June 27, 2012
Fort William First Nation	Chief Peter Collins	June 27, 2012
Métis Nation of Ontario (MNO)	Joanne Meyer, Director of Government Relations	July 16, 2012
Missanabie Cree First Nation	Councilor Eddy Robinson	July 16, 2012
Sand Point First Nation	Diane Marcale Nadjiwon	July 18, 2012
Lake Nipigon Ojibway		July 18, 2012
Métis Nation of Ontario (MNO) re: Thunder Bay, Superior North Shore and Greenstone Métis organizations	Jason Madden, MNO Legal Counsel	Aug. 8, 2012
Garden River First Nation	Ms. Cheyenne Olson	Aug. 29, 2012
Garden River First Nation	Chief Lyle Sayers	Aug. 29, 2012
MNO	Jason Madden, Mark Bowler and Region 2 Councilor Cam Burgess	Sep. 10, 2012
Garden River First Nation Commission	Utility Commission Darlene Solomon, Cheyenne Nolan, Peter Jones (Chair), and two others	Sep. 11, 2012

Community	Contact Person	Date
Missanabie Cree First Nation	Chief Kim Rainville	Sep. 12, 2012
Batchewana First Nation	Cathy Alisch, Senior Policy Analyst	Sep. 12, 2012
Red Sky Independent Métis Nation	Donelda DeLaRonde and Susan Blekkenhorst	Sep. 26, 2012
Batchewana First Nation	Chief Dan Sayers, Councilor Greg Agowa, Cathy Connor (CAO), Dan Sayers, Cathy Alisch and 2 others	Oct., 16, 2012
Long Lake First Nation and Pic River First Nation	Chief Allan Towegishig (Long Lake) and Councilor Art Fisher (Pic River)	Nov. 14, 2012

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #4

What is the location of the Control Centre that ATL proposes to use?

Response:

AOLP intends to contract with AltaLink to monitor the operation of the East-West Tie Line and coordinate with Hydro One on operational issues. AltaLink's control centre is located in Calgary, Alberta and staffed by fifteen trained and NERC-certified transmission system operators.

As described in AOLP's Designation Application Page B-27, *"AOLP would work closely with Hydro One to develop the appropriate interconnection agreements, operating procedures and any required communication links between the two entities to stream the data to AltaLink's Control Centre."*

AltaLink's system operators will dispatch contracted transmission line crews based in Ontario as required to respond to operation, maintenance and/or restoration issues.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #5

ATL states that it may use a mix of H-Frame wood pole structures and steel lattice towers.

a) Please indicate how many H-Frame wood pole structures ATL has assumed in estimating construction costs in its application.
b) Does this estimate include the potential cost of the wider right-of-way that may be required for H-frame towers?
c) What is the estimated savings of using the alternative H-Frame Structure design along certain areas of the proposed route?

Response:

a) None. The East-West Tie Line construction cost estimate provided in AOLP Designation Application Table 8.7-1 is based entirely on the use of steel lattice towers.

b) No. The estimate was based on the use of steel lattice towers.

c) As indicated at Page A-36 of the AOLP Designation Application, "*AOLP has also completed a preliminary investigation into the use of two parallel single circuit H-Frame structures as an alternative design to the double circuit lattice tower reference option*."

There are a number benefits of the H-Frame design such as, but not limited to, reduced material handling and transportation requirements, reduced foundation costs, reduced requirement to transport heavy equipment, reduced visual impact of line, lower grade access road requirements.

These benefits will reduce the environmental impact during construction and will also provide significant cost savings. Based on our preliminary assessment we have assumed that 30% of the line may be suitable for the use of H-Frame structures. This may equate to a reduction of construction cost in the region of 10% to 15% (approximately $25 million). This saving will increase should a greater length of line be found to be suitable for H-Frame structures. During the development phase of the project, AOLP will determine the final routing options, the extent to which the alternative H-Frame design may be applied and the associated savings.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #6

In paragraph 235 of Page B-92 of its designation application, ATL states that "[s]crew-piles can accommodate a broad range of soil types and terrain features." In Appendix 13, the study area is described as being in the Cambrian Shield, dominated by shallow soils and granite bedrock. Please provide examples of the successful use of screw-pile foundations in terrain dominated by shallow soils and granite bedrock.

Response:

AOLP is not aware of any examples of the successful use of screw-pile foundations in granite bedrock.

During the development of the Designation Application, AOLP carried out a walkover survey and visual inspection of the ground conditions in a number of sample areas. AOLP reviewed this data along with the geological maps provided in Appendix 15 (map book 2) of AOLP's Designation Application. The preliminary assessment was that from the visual inspection of the sample locations and the review of the geological maps potentially up to 15% of the proposed tower locations may be suitable for the use of screw-piles. This assessment will be confirmed during the development stage with geotechnical surveys.

The context of the suggested use of the screw-piles in the Designation Application was to identify an option for cost saving on sections of the East West Tie project.

Where they are feasible AOLP prefers the use of screw-piles due to their low cost, speed of installation, reduced environmental impact and superior grounding characteristics.

AOLP's affiliates have extensive experience in the design and application of a range of foundation types and have identified a number of foundation solutions that will also be suitable such as, but not limited to, rock anchors, caissons, drilled piers, H-piles, Pad and Pier and grillages.

Based on a detailed geotechnical investigation along the line route, AOLP will choose foundation types for the steel lattice towers (or H-Frames) that meet all technical requirements in the most economical fashion and suit the ground conditions at each site.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #7

Please provide the costs already spent by ATL for the preparation of its application.

Response:

AOLP has spent approximately $1.6 million for preparation of the Designation Application. As noted in Part A Section 5.9 "*In order to increase the benefit to Ontario ratepayers, AOLP will not seek recovery of the costs of participating in the designation process up to the date of filing this Application*".

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #8

At Exhibit A, pages 40 – 41, ATL discusses an innovative tariff alternative. Please provide a preliminary estimate of the increased cost of capital required to implement the innovative tariff alternative.

Response:

It is not possible, at this stage, to provide even a preliminary estimate of what the cost of capital would be under this approach since it would be highly dependent on the terms and structure of the associated long-term contract which would be required to implement the approach. This contract would have to be developed in collaboration with, and approved by, the Board.

Once the basic terms and contract approach have been established, and a determination made as to how the project risks were to be dealt with, a preliminary assessment of the type of structured financing which may be available could be made. This would lead to a determination of the cost of capital. Once the contract was finalized this assessment would be more fully tested in the capital markets. Depending on the ability to finance the contract and the sharing of risks between AOLP and customers, the cost of capital under this approach may be higher or lower than it would be under the traditional regulated approach. In any event, this approach may result in a more equitable sharing of the costs of the transmission facility between current and future generations of customers.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #9

ATL, at paragraph 308 of the application, suggests as a second option for construction cost risk allocation a target price for construction costs that would be negotiated. With whom would ATL negotiate this target price?

Response:

AOLP would propose utilizing the Board's existing settlement conference process (as described in the Board's *Rules of Practice and Procedure* and the Board's *Settlement Conference Guidelines*) to determine whether the parties could agree on a target price mechanism or lumped sum fixed price for construction costs as part of the leave-to-construct proceeding for the East-West Tie Line.

It follows from this proposal that AOLP would negotiate with the ratepayer groups and other parties that choose to intervene in the leave-to-construct proceeding. As is typical in other Board settlement processes, AOLP expects that Board Staff would participate in the settlement conference but would not be a party to any eventual settlement agreement.

If AOLP and the intervenors are able to reach agreement on a target price mechanism or a lump sum fixed cost, the parties would present the settlement proposal to the Board for review, question, comment and approval. The settlement proposal would contain or identify evidence sufficient to support the settlement proposal and would provide such additional evidence as the Board may require.

If the Board is satisfied that the settlement proposal is acceptable, the negotiated target price or lump sum fixed price would upon acceptance be binding on AOLP and could be taken into consideration by the Board when assessing, as part of the leave-to-construct proceeding, whether the potential rate impacts of the project are reasonable.

If the Board is not satisfied that the settlement proposal is acceptable, the Board could reject the proposal and instead determine the balance of the leave-to-construct application on the basis of its typical ratemaking principles.

This approach has the benefit of utilizing an existing and well tested Board settlement process for negotiating a target price or lump sum fixed price for construction costs. This approach would equip the Board with both a negotiated proposal and the evidence necessary to support that proposal. Ultimately, the Board would retain discretion on whether or not to accept any settlement proposal.

In return for this additional process step, the Board would benefit from a negotiated option that ensures alignment of interests between AOLP and ratepayers and provides incentives to AOLP to achieve additional efficiencies, innovation and continuous improvement during the construction phase of the project.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #10

At paragraph 309 of the application, ATL suggests a third option for construction cost risk allocation that would involve the determination of a lump sum fixed price. Does ATL have a proposal at this time as to how this lump sum would be determined?

Response:

Refer to response to AltaLink Ontario L.P. IR #9.

AOLP Response to Interrogatory Questions for AltaLink Ontario L.P.

Interrogatory #11

ATL proposes two cost sharing options for construction costs, and states that each such proposal "would have associated premiums over the cost of service approach to compensate for the transfer of risk". Please provide indicative premiums for each of the two cost sharing options suggested, and explain the assumptions underlying the indicative premiums provided.

Response:

The two cost sharing options for construction costs are proposed as potential means of providing cost certainty for the Board and ratepayers. As more cost risk is transferred from ratepayers to AOLP, project costs increase above the cost of service approach for both target price and fixed price contracts. Industry experience suggests that the premium over cost of service for target price contracts typically ranges from 4% to 8%, depending on nature and volume of risk allocated to the project proponent. Similar experience suggests the premium over cost of service for fixed price contracts typically ranges from 9% to 16%, depending on nature and volume of risk allocated to the project proponent.

This is an effective means to manage cost risk by adjusting the contract pricing structure. Pricing structures aim to allocate cost risk between ratepayers and project proponents with ratepayers ultimately trying to find optimal balance between absolute project cost and schedule certainty, while taking into account their desired risk profile, and project requirements and objectives. Basic pricing structures include cost of service, target price, and fixed price contracts. These pricing structures can be described along a spectrum as visualized below.

As more risk is transferred from ratepayers to the project proponent, the cost to ratepayers increases. Cost of service projects are typically structured so that the ratepayers reimburse all prudently incurred project costs to the project proponent, with the ratepayers bearing the majority of risk for cost or schedule overruns. Given that cost of service projects transfer the least amount of risk to the project proponent, the costs are typically the lowest. Target price and fixed price contract structures carry a premium to the ratepayers for the risk assumed by the project proponent in the form of higher costs,

but also allocate responsibility and control for risks to the project proponent, who is in the best position to manage project risk.

One goal of pricing structures is to allocate risk efficiently, i.e. to transfer the appropriate amount of risk to the parties better suited to manage that risk while balancing the cost. The ratepayers assume a different level of cost risk under each of these pricing structures. Generally, the more risk transfer from ratepayers to the project proponent, the higher the upfront cost to the ratepayers. To explain the cost premium associated with each pricing structure, it is important to first understand the risks that are transferred. Large capital projects often span multiple years, and as a result, project costs need to account for escalation of labour, materials and equipment prices during the term of the project. Since a project may run into unexpected challenges, such as permitting delays, changes in technical requirements, change in law, or material or labour availability, contingency is needed to cover possible cost overruns or schedule delays. In addition to escalation and contingency, the project proponent requires a premium that reasonably balances the potential risk and return.