

**IN THE MATTER OF** sections 70 and 78 of the *Ontario Energy Board Act 1998*, S.O. 1998, c. 15 (Schedule B);

**AND IN THE MATTER OF** a Board-initiated proceeding to designate an electricity transmitter to undertake development work for a new electricity transmission line between Northeast and Northwest Ontario: the East-West Tie Line.

**RESPONSES TO INTERROGATORIES**

**TO ALL APPLICANTS**

**FROM ONTARIO ENERGY BOARD**

**(on the evidence of the Applicant, RES CANADA TRANSMISSION LP)**

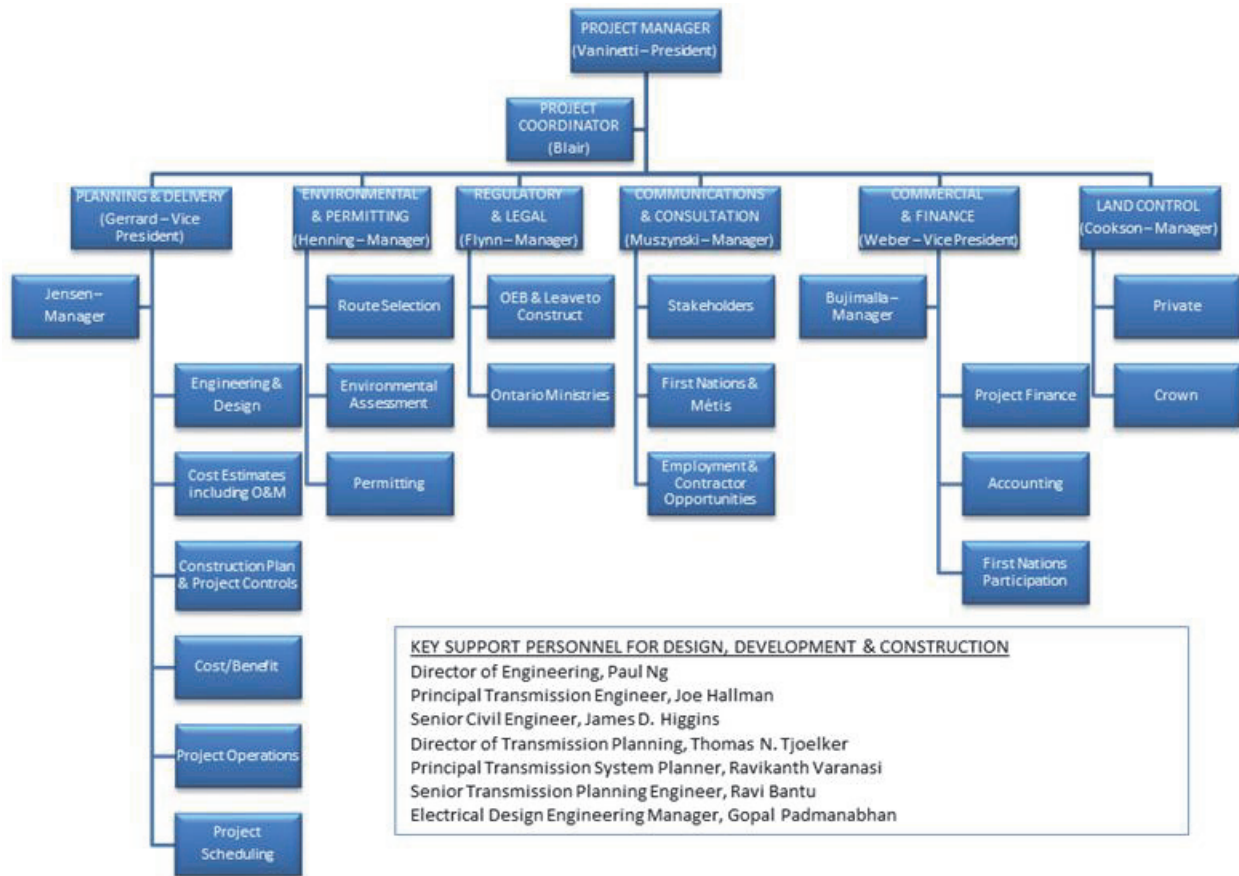
**MARCH 28, 2013**

## **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.

### **Responses:**

RES Transmission's proposed project management structure and project management team (including technical support staff) for all phases of the Project – development, construction, operation and maintenance – is set out on the following page. Detailed descriptions of the roles and responsibilities of the project management team are provided in Exhibit F-1-1, pp. 3-5. The resumes of key individuals on the Project Management Team are included at Exhibit F-1-2. The resumes for Brian Weber and Stephen Cookson, which were inadvertently omitted from RES Transmission's Application, are attached hereto as Appendices 1 and 2, respectively. Detailed descriptions of the roles and responsibilities of the technical team are provided in RES Transmission's Application at Exhibit F-3-1. The resumes of the technical personnel on the Design, Development, and Construction Team are included at Exhibit F-3-2.



The project management team, as shown above, will break down Project delivery with responsibilities as follows:

- Planning and delivery – this project task will include development of engineering and design, cost analysis, construction plans and project construction controls, overall cost benefit analysis, operation and maintenance planning and project scheduling;
- Environmental and permitting – this project task will include route selection, environmental assessment and permitting;
- Regulatory and legal – this project task will include OEB and Ontario ministry interaction, as well as conducting preparatory legal and regulatory work in connection with the Applicant’s LTC for the EWTL;
- Communications and consultation – this project task will include development and execution of communications and consultation with First Nation and Métis groups, municipalities, local communities and other stakeholders;

- Commercial and finance – this project task will include project finance planning, accounting and First Nation participation and accommodation; and
- Land control – this project task will include activities critical to securing site control over private, Crown lands and other lands and rights of way.

## **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.

### **Responses:**

Jerry Vaninetti is the leader of the Project Management Team who will be dedicated to the Project. Mr. Vaninetti's resume is included in the Application at Exhibit F-1-2. His experience is described in the Application at Exhibit F-1-1 (page 1 of 5), as follows:

"Mr. Vaninetti has 40 years of management experience in the electricity industry, including 10 years with a utility, 13 years in project development (mainly transmission), 9 years as a management consultant and 8 years in energy transportation. Recently, he has managed two major transmission projects in the western U.S. Rocky Mountains, the Wyoming-Colorado Intertie Project (300 km of 345 kV transmission line) and the High Plains Express Project (3500 km of 500kV transmission line.) Mr. Vaninetti is currently the Senior Vice President Transmission with RES Americas and President of the Applicant."

### **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.

#### **Responses:**

The “key technical team personnel” and their specific project/O&M roles are as follows:

- Director of Engineering, Paul Ng
- Principal Transmission Engineer, Joe Hallman
- Senior Civil Engineer, James D. Higgins
- Director of Transmission Planning, Thomas N. Tjoelker
- Principal Transmission System Planner, Ravikanth Varanasi
- Senior Transmission Planning Engineer, Ravi Bantu
- Electrical Design Engineering Manager, Gopal Padmanabhan

Key technical team personnel will report to the various managers in accordance with the project management chart and Project delivery structure provided in response to Interrogatory #1. Detailed descriptions of the roles and responsibilities of the technical team are provided in RES Transmission’s Application at Exhibit F-3-1. The resumes of the technical personnel on the Design, Development, and Construction Team are included at Exhibit F-3-2.

## **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.

### **Responses:**

RES Transmission and all related parties have completed and brought into service, or are in the process of completing and bringing into service, all of the transmission projects in respect of which construction has been or was commenced. To be clear, within the respective project portfolios of RES Transmission and its affiliates, there are no examples of failure to complete a transmission project.

## 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

### Responses:

Both negotiating First Nation and Métis participation and conducting consultation with First Nation and Métis communities, as delegated by the Crown, will be managed by RES Transmission's Participation Implementation Team, as described in Section 7 of its First Nation and Métis Participation Plan (Exhibit D-2-1). Specific roles, relationships, and experience of the team is as follows.

<b>RES Transmission Personnel</b>			
<b>Name</b>	<b>Role</b>	<b>Experience</b>	<b>Relationship with Affected Communities</b>
Nicolas Muszynski	Manager, Communications & Consultations	Over 10 years of experience in siting, permitting, and financing renewable energy projects and related transmission infrastructure across Ontario and other Canadian jurisdictions	Led the consultation process for multiple projects in Ontario, two of which required an Application for Leave to Construct before the Board
Stephen Cookson	Manager, Land Control	Over 10 years of experience in project management of energy infrastructure projects throughout Canada, including partnership management and stakeholder relationships, particularly with First Nation and Métis communities	Led the consultation process for multiple projects in Ontario, two of which required an Application for Leave to Construct before the Board
Jerry Vaninetti	Project Manager/ President, RES Transmission	Participated in pre-development outreach and meetings with affected communities during preparation of RES Transmission's Application	Participated in pre-development outreach and meetings with affected communities during preparation of RES Transmission's Application



Cory Blair	Project Coordinator	Participated in pre-development outreach and meetings with affected communities during preparation of RES Transmission's Application	Participated in pre-development outreach and meetings with affected communities during preparation of RES Transmission's Application
<b>External Advisors and Service Providers</b>			
Name	Role	Experience	Relationship with Affected Communities
John Beaucage	Special Advisor	Former Grand Chief of the Union of Ontario Indians; former co-chair of two tables, Housing and Relationships; current Chair of the First Nations Market Housing Fund; past advisor to the Minister of Child and Youth Services of Ontario; former CEO of Lake Huron Anishinabek Transmission Line Company; former chair of Nigig Power	A prominent businessman with years of success in building consensus among First Nation and Métis communities throughout Canada and particularly in Ontario. An Ontario resident uniquely positioned to advise RES Transmission to provide solutions and allow maximum and meaningful participation of First Nations in energy and transmission projects in Ontario
Coxswain Row Capital Corporation	Financial Structuring and Financing Opportunities	18 years in financial and management advisory providing services to clients in the energy sector. Engagement with First Nation clients has included helping with feasibility studies, structuring and establishing single-purpose project development entities, completing FIT applications, acquiring project portfolios, executing joint development and partnership agreements, securing and structuring government loan guarantees.	A Toronto-based firm providing services to First Nation and Métis communities in the mining, oil and gas, renewable energy, and technology sectors. Engaged with a First Nation community in evaluating negotiating the acquisition of, and financing a portfolio of utility-scale solar projects with FIT contracts.

Stantec Consulting Limited	Consultation and Participation Support	11,000 employees operating from more than 170 locations in North America, including 1,200 Environmental Services staff based in Canada	15 locations in Ontario with 340 Environmental Services staff, experienced in permitting and compliance, program and project management, stakeholder outreach and consultation services, particularly with First Nation and Métis communities
----------------------------	--	--	---

As can be seen from the table above, RES Transmission will be supported by the RES Group, drawing on the experience of past consultation experience and engagement with First Nation and Métis communities, particularly in Ontario. As described in Section 7 of RES Transmission’s First Nation and Métis Participation Plan Report (Application at Exhibit D-2-1), the RES Group has twice been delegated responsibility for conducting the Procedural Aspects of the Crown’s Duty to Consult in Ontario. Through an agreement between Her Majesty the Queen in Right of Ontario, as represented by the Ministry of Energy and Infrastructure, the RES Group led the consultation process for the Greenwich and Talbot Wind Farms, both of which included the construction of 230 kV transmission lines. Both projects were successfully constructed in 2010-2011 with a significant support from the neighbouring First Nation and Métis communities.

The RES Group is also negotiating Participation Agreements with several Ontario First Nations in connection with large-scale wind energy projects. The First Nation partners would have rights to be equity investors in the wind farm projects, effectively becoming owners of the projects, alongside RES. IBAs (Impact Benefit Agreements) would also be signed to compensate for any impact the windfarms have on the members’ traditional use of lands.

## 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)?

### Responses:

Yes, as described in its First Nation and Métis Participation Plan Report, included in its Application at Exhibit D-2-1, First Nation and Métis communities that are affected by the Project will be given an equal opportunity to participate in the Project. These parties will include, but will not be limited to, the 18 parties identified by the Ministry of Energy in its May 31, 2011 letter to the Ontario Power Authority. However, given the diverse nature and varying interests of individual communities, the precise method of participation and sum of benefits offered to each community will not be determined until detailed negotiations have taken place, and will reflect the level of each community’s interest in the Project, as well as the level of impact the Project will have on each community’s traditional lands and rights.

## **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?

### **Responses:**

Yes, as outlined in RES Transmission’s First Nation and Métis Participation Plan, only First Nation or Métis communities affected by the Project will have an opportunity to participate. As indicated in the Plan, and based on current engagement and review, the communities whose interests the Project may affect include, but are not necessarily limited to, the 18 parties identified by the Ministry of Energy in its May 31, 2011 letter to the Ontario Power Authority. RES Transmission anticipates that most, if not all of the identified First Nation and Métis communities will express some level of interest in participation, albeit with notable variances. As it is expected that some communities will be interested in participation through an equity investment, including associated risk, RES Transmission will combine all forms of participation in an overall strategy that accommodates affected parties in a manner that builds consensus for a successful Project. This strategy is outlined further in RES Transmission’s First Nation and Métis Participation Plan Report, included in its Application at Exhibit D-2-1.

## 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.

### Responses:

Yes, RES Transmission will assist prospective First Nation and Métis equity participants in arranging the financing of their equity participation in the Project. RES Transmission's proposal in this regard is described in Section 4.1.2 of its First Nation and Métis Participation Plan Report (Exhibit D-2-1).

“RES Transmission recognizes that when compared, First Nation and Métis communities have very different financial resources and tolerances for risk. Because many of the communities may lack the capacity to acquire an ownership interest in the Project, RES Transmission commits to help those communities by assembling a Participation Implementation Team [as described in Section 7 of the Report and in RES Transmission's response to Interrogatory #5] responsible for supporting and helping Aboriginal communities that wish to acquire an equity ownership stake in the Project.

Experienced in helping First Nation and Métis communities, RES Transmission's Participation Implementation Team possesses broad knowledge of banking and capital markets. The team expects to employ one or a combination of the following financial methods in support of First Nation and Métis equity participation.

- **Aboriginal Loan Guarantee Program.** To increase First Nation and Métis involvement in Ontario's energy sector, the Ontario government launched the Aboriginal Loan Guarantee Program (ALGP) in 2009. Administered by the Ontario Financing Authority (OFA), the ALGP program provides a Province of Ontario loan guarantee for up to 75 percent (to a maximum of \$50 million) of an Aboriginal community's equity investment in an eligible renewable energy or transmission project. On July 30, 2012, the Ontario government announced an increase in the ALGP program from \$250 million to \$400 million because of high demand.
- **Other Loans.** Niche lenders, such as the First Nations Finance Authority and the Business Development Bank of Canada, provide loans to First Nations to make equity investments in qualifying business ventures. Typically, these lenders impose less stringent

lending requirements (for example, minimal or no loan collateral) than large chartered banks.

- **Monetization.** First Nation and Métis communities may convey certain rights or benefits to a project, which can then be monetized. For example, a First Nation may grant a right-of-way across reserve lands to place transmission towers and lines. As consideration for the granted rights, the project entity may contractually agree to make the First Nation a series of regular payments, which could be “monetized” or converted to an upfront payment, through a financial instrument to the First Nation. The First Nation could then use the instrument to buy an equity interest in the project. Alternatively, the project entity could pay a lump sum to the First Nation as consideration for the granted rights, which the First Nation could use to fund an equity investment in the project.”

RES Transmission’s Participation Implementation Team, notably John Beaucage and Coxswain Row Capital Corporation, has extensive experience in working with First Nation and Métis communities to facilitate participation in Ontario’s energy sector. The Participation Implementation Team is described in in Section 7 of RES Transmission’s First Nation and Métis Participation Plan report (Exhibit D-2-1).

## **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?

### **Responses:**

Yes, RES Transmission will undertake an assessment to quantify the potential impacts of the Project on affected First Nation and Métis communities. Based on the results of that assessment, it will develop a mechanism for monetizing impact payments to be applied against the value of a participating community's equity contribution (as described in RES Transmission's First Nation and Métis Participation Plan at Exhibit D-2-1). Section 4.1.1 of RES Transmission's Participation Plan refers to this process, as follows:

“RES Transmission has prepared a menu of benefits to be offered and expects to later outline the Participation available to each community in an IBA to be negotiated with the First Nation and Métis leadership. Each community will have access to a combination of proposed benefits of Participation detailed later in this report. The final method of Participation and sum benefits will reflect the level of each community's interest in the Project, as well as the level of impact the Project will have on each community's traditional lands and rights.”

## **Interrogatory #10**

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

### **Responses:**

RES Transmission does not anticipate that offering equity participation to First Nation or Métis communities will affect its credit rating. If a First Nation fails to make requisite ongoing equity commitments during the course of construction or ownership, the remaining equity owners will have the ability to step in and fund the project's operations, using typical commercial mechanisms and thereby continue with project construction and operations. In this way, the diversity of additional investors will not degrade the credit of the project venture.



## 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.

### Responses:

Each of the 18 First Nation and Métis communities identified by the Ministry of Energy in its May 31, 2011 letter to the Ontario Power Authority, as well as the Kiashke Zaaging Anishinaabek (Gull Bay First Nation), another community identified by RES Transmission as potentially affected by the Project, have been contacted by RES Transmission via email and letters. These communications informed each community of RES Transmission's involvement in the Designation Process for the East-West Tie Line, and decided the relevant details of its Application for Designation, notably its First Nation and Métis Participation Plan.

Additionally, through its pre-development activities and during the preparation of its Application for Designation, RES Transmission had in-person meetings with the following communities:

- Fort William First Nation;
- Ojibways of Pic River; and
- Métis Nation of Ontario.

Furthermore, RES Transmission has received correspondence from the following communities in response to its outreach efforts:

- Bingwi Neyaashi Anishinaabek (Sand Point) First Nation; and
- Ojibways of Garden River

A complete First Nation and Métis Engagement Log, current as of the filing of RES Transmission's Application for Designation, is included in its Application at Exhibit D-3-1. An updated version of the Engagement Log, current as of March 28, 2013, is attached as Appendix 2.

## **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.

### **Responses:**

Yes. RES Transmission's Consultation Plan treats engagement with First Nation and Métis communities whose traditional territories will be crossed by the East-West Tie line, on an equivalent basis. RES Transmission has not, in either its Consultation Plan or in its Participation Plan, differentiated between First Nation and Métis communities in any way whatsoever.

## 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.

### Responses:

RES Transmission's experience in carrying out the procedural aspects of consultation with both First Nation and Métis communities is described in its First Nation and Métis Participation Plan Report, included in its Application at Exhibit D-2-1:

"RES Transmission has gained significant experience in First Nation and Métis issues through its partners – affiliates of the RES Group and the MidAmerican Group. With projects in Ontario and throughout Canada located on Crown Lands, the RES Group has engaged insubstantial consultation with First Nation and Métis communities with Treaty rights on these Crown lands. The RES Group consults with full awareness of the duty to consult enshrined in Canadian law and incorporates First Nation and Métis consultation as an integral part of the development process.

Twice the RES group was delegated responsibility for conducting the Procedural Aspects of the Crown's Duty to Consult in Ontario. Through an agreement between Her Majesty the Queen in Right of Ontario as represented by the Ministry of Energy and Infrastructure, RES Group led the consultation process for the Greenwich and the Talbot Wind Farms, including 230 kV transmission lines associated with each. Both projects were successfully constructed in 2010-2011 with a significant support from the neighbouring First Nation and Métis communities.

The level of consultation with First Nation and Métis peoples typically depends on historical claims, treaty rights, or traditional land use. The RES Group has achieved successful outcomes on many Canadian projects, including, for instance, the Greenwich Wind Farm located on Lake Superior's northern shores in the direct vicinity of the East-West Tie Line. The RES Group also executed Aboriginal Impact Benefits Agreements that compensate for the affect of the windfarm's construction and transmission line have on traditionally used lands; the IBAs additionally provided capacity funding for services and annual funding for the First Nations to apply to renewable energy or other projects. Finally, the IBAs included an economic implementation plan for two neighbouring First nations that provided Aboriginal construction companies preferred employment opportunities on the construction site. The plan resulted in a significant number of First Nation and Métis members working on the

Greenwich construction site building roads and providing security and other services. The Greenwich project also concluded similar agreements with two Ontario Métis groups based on the north Superior shoreline, following negotiations with the Toronto-based Métis Nation of Ontario (MNO).

The RES Group is negotiating Participation Agreements with several Ontario First Nations concerning participating with RES in the FIT 2.0 process for large-scale wind energy projects. The First Nation partners would have rights to invest equity in the windfarm projects, effectively becoming an owner of the project alongside RES. IBAs would also be signed to compensate for any impact the windfarm has on the members' traditional use of lands."

Both John Beaucage, Special Advisor to RES Transmission, and Stantec Consulting Limited, have extensive experience in Ontario and throughout Canada in carrying out the procedural aspects of consultation with First Nation and Métis communities. The qualifications of each are described in Section 7 of RES Transmission's First Nation and Métis Participation Plan Report (Exhibit D-2-1). Mr. Beaucage's resume and a copy of RES Transmission's First Nation and Métis Consultation Plan, prepared by Stantec, are included in RES Transmission's Application at Exhibits D-2-2 and M-3-1, respectively.

## **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.

### **Responses:**

RES Transmission is not aware of any outstanding claims, applications, reviews or other proceedings brought against it or any of its affiliates or related parties by a First Nation or Métis community.

## 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.

### Responses:

Yes. As described below, the towers and the conductors proposed for both the Reference Design and the Preferred Design have been utilized successfully in Ontario or in jurisdictions with terrain and weather conditions similar to those of northern Ontario.

- **Reference Design**

RES Transmission’s Reference Design proposes double-circuit lattice towers similar to those used on HONI’s existing double-circuit East-West Tie line; moreover, the conductor on HONI’s existing line is also identical to the single 1192.5 kcmil conductor proposed in RES Transmission’s Reference Design.

- **Preferred Design-Towers**

RES Transmission’s Preferred Design proposes a combination of single-circuit lattice towers and tubular steel, H-frame towers. The H-frame towers are designed to meet the specific conditions encountered in northern Ontario.

Similar H-frame towers have been utilized by projects in jurisdictions with terrain and environmental conditions that are similar to those in northern Ontario. These include two projects in Wyoming that were constructed by PacifiCorp, an affiliate of RES Transmission. Both PacifiCorp projects are single-circuit lines that utilize 1557 kcmil ACSS conductors, strung on tubular steel, H-frame towers. The two Wyoming projects were designed in accordance with industry standard weather cases which are similar to the standards specified in “OEB E-W Tie Line Appendix A – Minimum Design Criteria for the Reference Option”. This is demonstrated by the table below:

<b>PacifiCorp Wyoming Projects Structural Design Criteria</b>	<b>OEB E-W Tie Line Structural Design Criteria</b>
NESC 250-B Heavy Loading -20° C, 12.5 mm ice, 190 Pa wind,	C22.3 No. 1-06 Heavy Loading -20° C, 12.5 mm ice, 400 pa wind
NESC 250-C Extreme Wind 15° C, 0 mm ice, 1484 Pa wind,	1/50 Year Return Wind Gust (HONI) 10° C, 0 mm ice, 770 pa Wind
NESC 250-C Heavy Ice -10° C, 25 mm ice, 0 Pa wind,	Static Ice Load (HONI) 0° C, 25 mm ice, 0 Pa wind

Currently, PacifiCorp is constructing a 275 km, 345 kV H-frame line in the Rocky Mountains. This line is being built parallel to an existing, tubular steel H-frame line that has been in service and performed as designed for more than 20 years. The new line will use similar, yet somewhat larger, tubular steel H-frame tangent structures with lattice steel deadend structures.

The steel H-frame designs proposed by RES Transmission have superior durability and design flexibility compared with wood H-frame structures that have also been used in jurisdictions with terrain and weather conditions similar to northern Ontario. Accordingly, H-frame towers present little risk in terms of project development and construction. Nevertheless, RES Transmission has assessed the potential risks associated with its proposed designs; this analysis is included in its Application at Exhibit N-3-6, Table N-2 and at Exhibit P-5-1, Table P-10. Any risks that were identified in the risk analysis were incorporated into RES Transmission's development and construction cost proposals.

- **Preferred Design-Conductors**

RES Transmission's Preferred Design proposes to use 1557 kcmil 45/7 ACSS trapezoidal conductor ("**Trapezoidal Conductors**"). This type of conductor is very well suited to the conditions of northern Ontario for the following reasons:

- its tensile strength versus weight ratio;
- its current carrying ability;
- its self-damping characteristics that reduce Aeolian vibration;
- its configuration;
- its strength capacity; and
- the compact shape of the trapezoidal wire which results in the generation of less wind and ice loading on the towers and foundations.

Different sizes of Trapezoidal Conductors have been successfully used on several of the projects designed and constructed by MidAmerican Group entities, including the two Wyoming projects described above and in the MidAmerican Group projects that are described in RES Transmission's Application at Exhibit E-3-2, Table E-2.

## **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.

### **Responses:**

The lattice tower designs utilized in RES Transmission's Reference Design are similar to the tower designs employed by HONI in respect of the existing East-West Tie line. RES Transmission's Preferred Design employs a combination of lattice structures and tubular steel tangent H-frame structures.

RES Transmission's construction schedule (included at Exhibit N-3-1 and N-3-2) incorporates time for design and full scale testing of the lattice tower structures proposed for both the Reference Design and the Preferred Design. The construction schedule does not incorporate time for full scale testing of the tubular steel H-frame tower structures prepared for the Preferred Design, because such testing is not typically carried out on H-frame towers due to the simplicity of their basic design.



## **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.

### **Responses:**

#### **Risk of Single Loop Galloping**

The occurrence of single loop galloping depends on many variables such as line location, wind speed and direction, conductor type, span lengths, wire sags and structure phase spacing. Galloping, if it occurs, can cause not only line outages, but also conductor and structure damage through flashover damage and/or structure collision damage. The galloping risk is greatest on vertical configuration structures as phases are aligned vertically, which, in the event of galloping, reduces the allowable movement of the conductors. One of the structure configurations employed by utilities to reduce the risk of galloping damage and line outages is a horizontal configuration, as proposed in RES Transmission's Preferred Design. A single-circuit horizontal configuration spaces the wires (2 shield wires and 3 conductors) such that all the wires are vertically offset. This means that the galloping ellipses of each respective conductor do not overlap. This configuration reduces the risk of single loop galloping and adheres to the Board's Minimum Technical Requirements.

RES Transmission has investigated the single loop galloping this phenomenon in connection with the projects that comprise MidAmerican Group's Energy Gateway Transmission Expansion Program. It appears that single loop galloping can occur in locations, similar to northern Ontario, where conductor icing, or more specifically, rime ice, is prevalent during wind conditions.

#### **Cost of Meeting Board Requirement**

Both the Preferred Design and the Reference Design comply with the single loop, CIGRE galloping with a maximum amplitude of 12 meters requirement specified in the Board's Minimum Technical Requirements. Compliance with this design requirement was accomplished by increasing phase spacing to limit overlap of conductor galloping ellipses. Any potential savings achieved from lessening the Board's requirement would be due to changes in the conductor spacing and resulting tower designs.

RES Transmission has not performed a study or a detailed cost analysis to determine the incremental cost of complying with the Board's Minimum Technical Requirements with respect to single loop galloping. What can be said is that the cost of compliance with the galloping requirement, for RES Transmission's Preferred Design, is minimal (estimated at \$3 million or less) because the Preferred Design is inherently less susceptible to the risks and damage associated with conductor galloping, due to use of

single conductors and horizontal conductor phase spacing as described above. Stated differently, lessening or elimination of the Board's requirements would provide for a minimal cost saving (estimated at \$3 million or less) on RES Transmission's Preferred Design, as it was selected because of the low cost of adhering to the Board's requirements.

## **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?

### **Responses:**

No. All structures will be designed for hotline work per OEB and CSA criteria.

## 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?

### Responses:

RES Transmission has identified two potential routes for the Project: the Reference Route, a 401 km long, 50 m wide corridor, that parallels and is adjacent to the corridor for HONI's existing East-West transmission line (the "**Reference Route**"); and the Preliminary Preferred Route, a 409 km long, 50 m wide corridor, that parallels HONI's existing corridor for approximately 279 km and then departs from the existing corridor for approximately 130 km, between White River and Wawa (the "**Preliminary Preferred Route**").

RES Transmission's design assumptions with respect to tower height, span length, foundations, protection against cascading failure and access are described in Exhibits H-1-1, H-2-1, H-5-1 through H-5-4, and H-6-1 through H-6-4 for its Preferred Design, and at Exhibits I-1-1, I-2-1, and I-5-1 through I-5-2 for the Reference Design.

In the unlikely event of a catastrophic failure, the new line would be positioned at a sufficient distance from the existing HONI line, with a 48-50 m centerline offset. Accordingly, a catastrophic failure would not adversely impact HONI's existing line, even in circumstances where the new corridor is adjacent to HONI's existing corridor.

The table on the following page summarizes several key design assumptions that bear on the issue. The Preferred Design employs a horizontal configuration which reduces structure height compared to a double circuit configuration. This decreases the sideways tipping distance required between centerlines, which is advantageous *vis-à-vis* the existing HONI line, in the event of a catastrophic failure.

	<b>RES Transmission Designs</b>		
	<b>Referenced Design</b>	<b>Preferred Designs</b>	
<b>Structure Type</b>	Double Circuit Lattice Tower	Single Circuit Lattice	Tubular Steel H-Frame
<b>Tower Spacing</b>	410 m	410 m	335 m
<b>Conductor</b>	1192.5 kcmil 54/19 ACSR Grackle	1557.4 kcmil 45/7 ACSS/TW HS285 Potomac/TW	1557.4 kcmil 45/7 ACSS/TW HS285 Potomac/TW
<b>Right-Of-Way Width</b>	50 m	50 m	46 m
<b>Typical Centerline Distance from HONI Existing Centerline</b>	50 m	50 m	48 m
<b>Foundations</b>	(4) 1/Leg	(4) 1/Leg, Somewhat smaller than Reference Design	(2) 1/Leg, Direct embed opportunity

Neither RES Transmission’s Reference Route nor its Preliminary Preferred Route will utilize or overlap with any of HONI’s existing right-of-way, except in isolated and localized instances, where it may be necessary to cross the existing East-West Tie line. These instances will not be identified until the Development Phase of the Project. Moreover, RES Transmission does not intend to enter into any land agreements for new right-of-way that preclude access by HONI to its existing facilities or that supersede HONI’s existing land agreements. Accordingly, HONI’s access to its existing transmission infrastructure will not be affected, in any way, by either the Reference Route or the Preliminary Preferred Route.

## **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?

### **Responses:**

RES Transmission describes the measures it intends to take to protect against cascading tower failure in respect of its Preferred Design, at Exhibit H-2-1, page 4 of 7 and in respect of its Reference Design, at Exhibit I-2-1, page 3 of 6. These measures include installing full, deadend structures at intervals of 20 km or less, and installing a strain-type structure or another full, deadend structure at a point that is halfway between the two deadend structures. This design will result in a frequency of deadend structures that is equivalent to or greater than the frequency of deadend structures on the existing HONI line. It is RES Transmission's opinion that these measures are more than sufficient to prevent catastrophic failure of the new line. Notwithstanding this, and as stated in its response to Interrogatory #19, RES Transmission's new line will be positioned at a sufficient distance so as not to adversely affect HONI's existing line, in the unlikely event of a catastrophic failure.

Finally, RES Transmission does not intend to utilize or overlap any HONI right-of-way line, except in localized instances where it may be necessary to cross the existing East-West Tie line, nor does it intend to enter into any land agreements for new right-of-way that preclude access by HONI to its facilities or supersede any existing land agreements. Accordingly, access by HONI to its existing transmission line will not be impacted in any way.

## 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 exposure 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?

### Responses:

#### **Beneficial attributes of RES Transmission single circuit Preferred Design**

Yes. There are beneficial attributes of the single circuit option that are unrelated to cost savings. RES Transmission describes these in its Application at Section E of Exhibit B-1-1 and, in greater detail, in Exhibits G, H and I. These advantages of RES Transmission’s single circuit Preferred Design are summarized below.

- It can be constructed and put into service more quickly than can the Reference Design.
- It allows, by simple design, for increments of transfer capacity to be installed in five discrete stages, in the form of station upgrades, in order to meet system requirements as they materialize, thereby offering greater flexibility in addition to cost savings.
- It will have lower operations and maintenance requirements due to the significantly reduced level of transmission line and station equipment installed. Specifically, there are inherently less operations and maintenance requirements (approximately 50% less) for line component(s) and less substation equipment

failure risk compared to the Reference Design, thus requiring less personnel and work to operate and maintain the Preferred Design.

- The single-circuit Preferred Design allows for better system voltage control, especially under light load system conditions when the flows on the East-West Tie lines are lower than the rated capacity of the lines.

Section 14 of the IESO Feasibility Study Report (IESO\_REP\_0748), (included at Exhibit I-2-2) provides details about the reactive compensation requirements for a lightly loaded case. It is evident that in the Reference Case, the existing SVC and the new SVC required at Marathon must absorb additional reactive power, compared with the single-circuit alternative cases presented in the IESO Report. Specifically, the IESO Report states as follows (at Exh. I-2-2, p. 29): “[f]or the Reference Case, with the Marathon SVC absorbing 97 MVar pre-contingency, the loss of the SVC would result in voltages of 255kV at Marathon TS and 254kV at Wawa TS, which would exceed the permitted maximum of 250kV.” On the other hand, the IESO concludes that the single-circuit alternative cases remained within the permitted maximum operating voltage following the loss of the SVC (Exh. I-2-2, p. 29). RES Transmission’s Preferred Design uses a single conductor, not the bundled conductor assumed for the single-circuit alternative cases in the IESO study. A single conductor produces less reactive power, thus further reducing the potential for over voltage issues following the loss of the Marathon SVC.

Finally, an East-West Tie flow duration curve, for the year 2020, was provided by the Ontario Power Authority in its June 30, 2011 Long-Term Electricity Outlook for the Northwest Report. This curve indicates that the flow on the East-West Tie line would not be at its rated capacity for approximately 95 percent of the time in any one year; in these circumstances, it becomes important to manage reactive power and, in-turn, have ease of voltage control by the IESO during lower power flows on the East to West interface. RES Transmission’s Preferred Design assists with voltage control and in the management of reactive power.

- RES Transmission’s single-circuit Preferred Design provides better system operability and flexibility, especially under light transfer conditions because the series capacitors can be bypassed to control the power flows on the tie and this enhances the IESO ability for discrete system voltage control.



## 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)?

### Responses:

RES Transmission's Reference Design is based on the IESO's August 2011 Feasibility Study for the Reference Case, which utilized the circuit parameters contained therein.

For RES Transmission's Preferred Design, the IESO used the positive sequence circuit parameters set out in the table below (Exhibit H-2-3). The IESO stated as follows: "[t]hese parameters are consistent with 1557 kcmil ACSS/TW conductors in a horizontal configuration with the outer conductors 7.92m (26 feet) from the central conductor" (Exhibit H-2-3, page 4).

<i>New Circuit Positive Sequence Parameters</i>		<i>On a 220 kV, 100 MVA base</i>		
Line Section	km	R1(pu)	X1 (pu)	B1 (pu)
Wawa x Marathon	168.3	0.014523	0.17148	0.275369
Marathon x Lakehead	229.4	0.019518	0.232046	0.376419

In both IESO Feasibility Studies, the IESO concluded that both RES Transmission's Reference Design and its Preferred Design, met all applicable reliability criteria.

## **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.

### **Responses:**

In its Application, RES Transmission did not propose an alternate route that varies 40 km or more in length from the 400 km Reference Route.

## **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.

### **Responses:**

Yes, RES Transmission's Preferred Design and Reference Design proposals will both be capable of maximum continuous operation at 250 kV for all system equipment with a nominal voltage rating of 230 kV as per Appendix 4.1 – IESO Controlled Grid Performance Standards. All other applicable system components will be designed to meet all required standards, including the referenced IESO Market Rules.

## **Interrogatory #25**

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

### **Responses:**

RES Transmission is unaware of any differences between the inputs that went into the Feasibility Study on record for its Preferred Design (Exh. H-2-3), the inputs that went into the Feasibility Study for its Reference Design (Exh. I-2-2), and its proposed designs for its Preferred Design and its Reference Design, respectively. RES Transmission's Reference Design is based on the IESO's Reference Case; put another way, it is the same as the IESO "Feasibility Study on record". The IESO conducted a separate Feasibility Study for RES Transmission's Preferred Design (Exhibit H-2-3). IESO's criteria, methodology and process for both feasibility studies were, to the best of RES Transmission's knowledge, the same.

## 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.

### Responses:

Since RES Transmission's costs were prepared in late 2012, they are considered as 2012 dollars and remain unchanged from the Application.

### **RES TRANSMISSION'S PREFERRED DESIGN & PRELIMINARY PREFERRED ROUTE**

Development Activity	Estimated Cost (\$CAD Millions)	Reference in filed application
Engineering, design, and procurement activity	9.59	Ex. P Tab 4 Sch. 2 pg 3/6
Materials and equipment	0	Ex. P Tab 4 Sch. 2 pg 3/6
Permitting and licensing	0	NA <sup>1</sup>
Environmental and regulatory approvals	1.56	Ex. P Tab 4 Sch. 2 pg 3/6
Land rights (acquisition or options), including consultation and negotiation with landowners	2.78	Ex. P Tab 4 Sch. 2 pg 3/6
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)	0.29	Ex. P Tab 4 Sch. 2 pg 3/6
First Nation and Métis consultation	0.76	Ex. P Tab 4 Sch. 2 pg 3/6
Other consultation (community, stakeholder)	0.86	Ex. P Tab 4 Sch. 2 pg 3/6
IDC or AFUDC (if included in estimates)	0	NA <sup>1</sup>

<b>Development Activity</b>	<b>Estimated Cost (\$CAD Millions)</b>	<b>Reference in filed application</b>
Contingency <sup>2</sup>	1.4	Table P-5 Ex. P Tab 3 Sch. 1 pg 3/4
Other <sup>3</sup> (explain in detail) – see note below	4.29	Ex. P Tab 4 Sch. 2 pg 3/6
<b>Total</b>	<b>21.53</b>	

1. NA: Not applicable during the development phase
2. Contingency: RES calculated contingency using a risk assessment model; see response to IR #28 for further details
3. Other: project management costs

<b>Construction Activity</b>	<b>Estimated Cost (\$CAD Millions)</b>	<b>Reference in filed application</b>
Engineering, design, and procurement activity	12.84	Ex. P Tab 4 Sch. 2 pg 3/6
Materials and equipment	189.51	Ex. P Tab 4 Sch. 2 pg 3/6
Permitting and licensing	0.47	Ex. P Tab 4 Sch. 2 pg 3/6
Environmental and regulatory approvals	5.7	Ex. P Tab 4 Sch. 2 pg 3/6
Land rights (acquisition or options), including consultation and negotiation with landowners	12.47	Ex. P Tab 4 Sch. 2 pg 3/6
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)	0.04	Ex. P Tab 4 Sch. 2 pg 3/6
First Nation and Métis consultation	0.06	Ex. P Tab 4 Sch. 2 pg 3/6
Other consultation (community, stakeholder)	0.68	Ex. P Tab 4 Sch. 2 pg 3/6
Site clearing and preparation	11.27	Ex. P Tab 4 Sch. 2 pg 3/6
Construction	76.22	Ex. P Tab 4 Sch. 2 pg 3/6
Site remediation	4.2	Ex. P Tab 4 Sch. 2 pg 3/6
IDC or AFUDC (if included in estimates)	0	Not Estimated

<b>Construction Activity</b>	<b>Estimated Cost (\$CAD Millions)</b>	<b>Reference in filed application</b>
Contingency <sup>1</sup>	50.2	Table P-7 EX. P Tab 4 Sch. 1 pg 2/4
Other <sup>2</sup>	28.24	Ex. P Tab 4 Sch. 2 pg 3/6
<b>Total</b>	<b>391.9</b>	

1. Other: project management, financial and legal services, inspection services, spare parts facility, establish & maintain construction camps
2. Contingency: RES calculated contingency using a risk assessment model; see response to IR #28 for further details.

<b>Operations and Maintenance Activity<sup>1</sup></b>	<b>Estimated Cost (\$CAD Millions)</b>	<b>Reference in filed application</b>
Major activities (please list, but cost estimate may be bundled)	2.125	Ex. P Tab 6 Sch 2 pg 1/1
Administration and general costs related to O&M	.05	Ex. P Tab 6 Sch 2 pg 1/1
Regulatory costs	.025	Ex. P Tab 6 Sch 2 pg 1/1
Contingency <sup>2</sup>	0	Not Estimated

1. RES Transmission's Application states that costs associated with ongoing land rights, systems operations & communications, First Nations impacts and NERC compliance changes would be determined during the development phase and are, accordingly, excluded from the cost estimates (Exhibit P. Tab 6, Schedule 2, page 1 of 1).
2. Contingency: RES calculated contingency using a risk assessment model; see response to IR #28 for further details.

**RES TRANSMISSION'S REFERENCE DESIGN & REFERENCE ROUTE**

Development Activity	Estimated Cost (\$CAD Millions <sup>0</sup> )	Reference in filed application
Engineering, design, and procurement activity	9.41	Ex. P Tab 4 Sch. 2 pg 6/6
Materials and equipment	0	Ex. P Tab 4 Sch. 2 pg 6/6
Permitting and licensing	0	NA <sup>1</sup>
Environmental and regulatory approvals	1.56	Ex. P Tab 4 Sch. 2 pg 6/6
Land rights (acquisition or options), including consultation and negotiation with landowners	2.78	Ex. P Tab 4 Sch. 2 pg 6/6
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)	0.29	Ex. P Tab 4 Sch. 2 pg 6/6
First Nation and Métis consultation	0.76	Ex. P Tab 4 Sch. 2 pg 6/6
Other consultation (community, stakeholder)	0.86	Ex. P Tab 4 Sch. 2 pg 6/6
IDC or AFUDC (if included in estimates)	0	NA <sup>1</sup>
Contingency <sup>2</sup>	1.40	See note below
Other <sup>3</sup>	4.31	Ex. P Tab 4 Sch. 2 pg 6/6
<b>Total</b>	<b>21.37</b>	

1. NA: Not applicable during the development phase
2. Contingency: RES calculated contingency using a risk assessment model; see response to IR #28 for further details
3. Other: project management



<b>Construction Activity</b>	<b>Estimated Cost (\$CAD Millions)</b>	<b>Reference in filed application</b>
Engineering, design, and procurement activity	12.59	Ex. P Tab 4 Sch. 2 pg 6/6
Materials and equipment	241.01	Ex. P Tab 4 Sch. 2 pg 6/6
Permitting and licensing	0.47	Ex. P Tab 4 Sch. 2 pg 6/6
Environmental and regulatory approvals	5.7	Ex. P Tab 4 Sch. 2 pg 6/6
Land rights (acquisition or options), including consultation and negotiation with landowners	13.02	Ex. P Tab 4 Sch. 2 pg 6/6
First Nation and Métis participation (direct and indirect costs, including impact mitigation if applicable)	0.04	Ex. P Tab 4 Sch. 2 pg 6/6
First Nation and Métis consultation	0.06	Ex. P Tab 4 Sch. 2 pg 6/6
Other consultation (community, stakeholder)	0.68	Ex. P Tab 4 Sch. 2 pg 6/6
Site clearing and preparation	11.27	Ex. P Tab 4 Sch. 2 pg 6/6
Construction	97.97	Ex. P Tab 4 Sch. 2 pg 6/6
Site remediation	4.3	Ex. P Tab 4 Sch. 2 pg 6/6
IDC or AFUDC (if included in estimates)	0	
Contingency <sup>1</sup>	59.64	Extrapolated from Table P-3 Ex. P Tab 1 Sch 1 pg 4/8
Other <sup>2</sup>	29.89	Ex. P Tab 4 Sch. 2 pg 6/6
<b>Total</b>	<b>476.64</b>	

1. Contingency: RES calculated contingency using a risk assessment model; see response to IR #28 for further details.
2. Other: project management, financial and legal services, inspection services, spare parts facility, establish & maintain construction camps.

<b>Operations and Maintenance Activity (not estimated in original application)</b>	<b>Estimated Cost (\$CAD Millions)</b>	<b>Reference in filed application</b>
Major activities (please list, but cost estimate may be bundled) Annual inspections Vegetation Management Spare Parts Unplanned outage response	2.65	Ex. F-5-1 and P-6-1; P Tab 6 Sch 2 pg 1/1
Administration and general costs related to O&M	.08	Ex. P Tab 6 Sch 2 pg 1/1
Regulatory costs	.031	Ex. P Tab 6 Sch 2 pg 1/1
Contingency	0	

RES Transmission's Application states that costs associated with ongoing land rights, systems operations & communications, First Nations impacts and NERC compliance changes would be determined during the development phase and are excluded from the cost estimates (Exhibit P-6-2, page 1 of 1).

Detailed O&M costs for the East-West Tie line will be determined during the Development Phase, when the design and route have been finally determined (Exhibit F-5-1).

## **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.

### **Responses:**

- a) The re-aggregated totals in the tables provided in response to Interrogatory #26 are consistent with the overall estimates included in RES Transmission's Application.
- b) The cost totals for each of the development, construction and operations phases, as set out in the tables provided in response to Interrogatory #26, correspond to the cost totals provided for each phase, in Exhibit P of RES Transmission's Application. Accordingly, no reconciliation is required.

## **Interrogatory #28**

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

### **Responses:**

As described in Exhibits N-3-3 and P-5-1 of RES Transmission's Application, for each of the development, construction and operation phase, the contingency amounts were calculated based on the following factors:

1. identification of possible risks;
2. allocation of estimated cost to each risk;
3. allocation of estimated probability of occurrence of each risk;
4. allocation of estimated severity of impact of each risk if it occurred;
5. calculation of overall risk value by risk value x probability x severity; and
6. development of mitigation plan for each risk.

## **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.

### **Responses:**

RES Transmission's estimated operation, maintenance and administration costs are presented in its Application on a standalone basis.

## 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?

### Responses:

On the basis of information presented by Board Staff in its January 10, 2012 and March 23, 2012 stakeholder meetings and in the Board's Phase 1 Decision and Order of July 12, 2012, RES Transmission understood that designation applications were to pertain, exclusively, to the transmission line segments of the East-West Tie line and not to station upgrades. It was RES Transmission's understanding that HONI would be responsible for all station upgrades, including the provision of related operations and maintenance ("**O&M**") services. RES Transmission relied upon these assumptions when it prepared its Application.

Subsequent to filing its Application, RES Transmission learned that while HONI would provide O&M services in respect of any upgrades to its transformer stations for the Reference Case, it would not provide O&M services for the series compensation facilities that would need to be installed in order to accommodate RES Transmission's Preferred Design. RES Transmission's responses to the specific questions posed in this interrogatory are set out below:

- (a)-(c) On the basis of information provided to it, RES Transmission assumed that HONI would be responsible for all O&M services, including O&M services in respect of upgrades to HONI's existing transformer stations and to the series compensation facilities that would need to be installed in order to accommodate RES Transmission's Preferred Design.

RES Transmission has not estimated the costs of providing O&M services in respect of upgrades to HONI's existing transformer stations or the series compensation facilities that would need to be installed in order to accommodate RES Transmission's Preferred Design.

- d) If HONI will not provide O&M services for the series compensation facilities required to implement RES Transmission's Preferred Design, then RES Transmission is prepared to provide these services. This may increase the

estimate of O&M costs provided in RES Transmission's Application (at Exhibits P-6-1 and P-6-2) on the order of \$0.5 million per year, depending on when and what series compensation facilities are installed. Such costs could be more accurately estimated during the Development Phase of the Project. In the event that RES Transmission is designated, it would endeavor to engage HONI in discussions about providing such O&M services on an incremental basis to the O&M services it already provides for the existing East-West Tie line which may be less than stand-alone costs that would be incurred by RES Transmission.

## Interrogatory #31

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

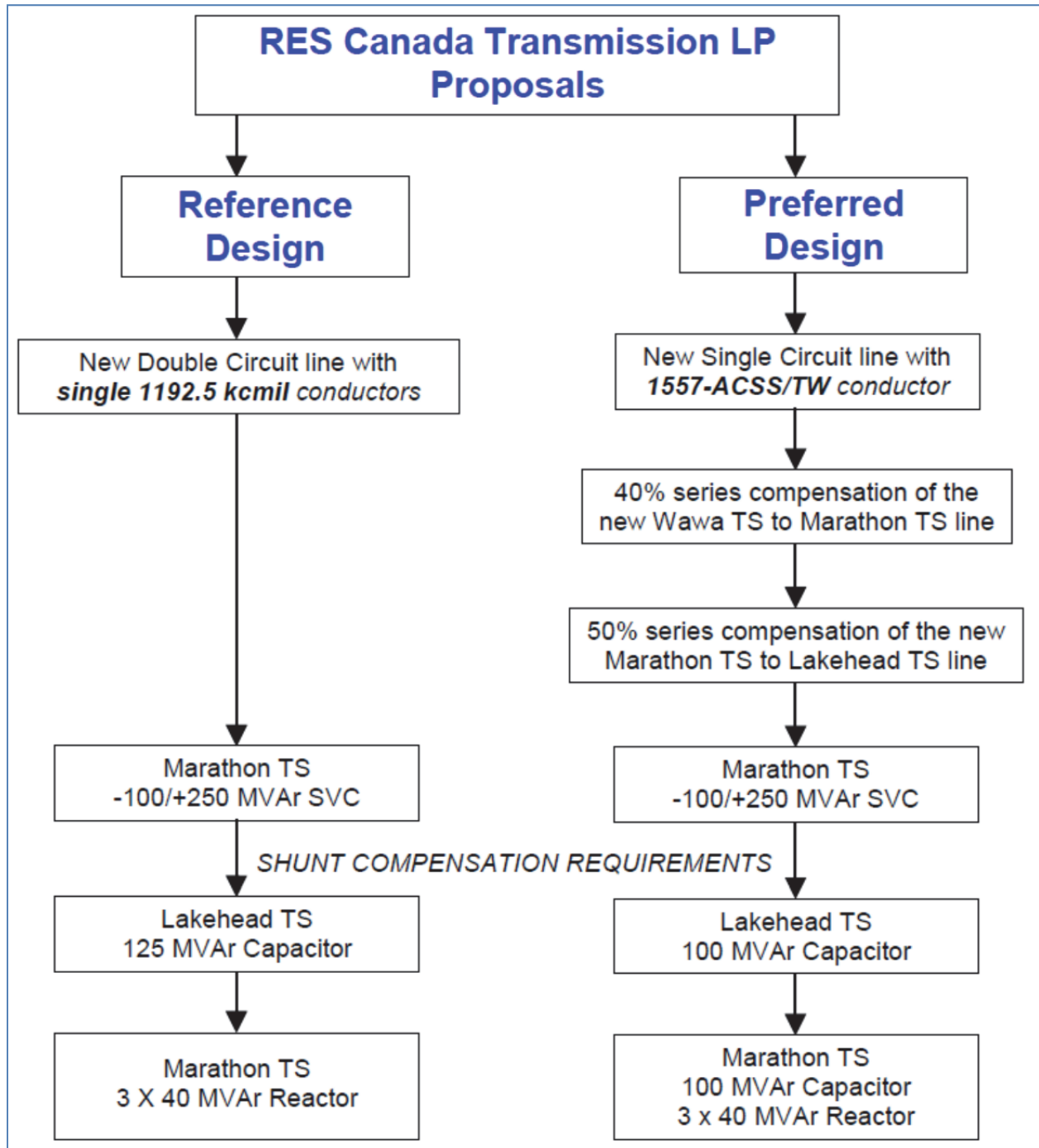
- a) What specific uses, modifications or expansions were assumed in the application?
- b) What were the assumed associated costs?
- c) In the absence of any input from Hydro One, on what basis were these assumptions made?
- d) What is the impact on the application if the assumed uses, modifications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

### Responses:

Based on the Project Definition for Designation for the East-West Tie Line attached to the Information Package issued by the Board on December 20, 2011, and on Board Staff presentations during stakeholder meetings on January 10, 2012, and March 23, 2012, RES Transmission understood that designation applications were to pertain, exclusively, to the transmission line segments of the East-West Tie Line and that HONI would be responsible for all upgrades and interconnections to its existing transformer stations. Further, from Section 8.8 of the Filing Requirements in Appendix A of the Board's Phase 1 Decision and Order, RES Transmission understood that "if the Plan [was] not based on the Reference Option, evidence as to the difference in cost (positive or negative) of work required at the transformer stations to which the line connects, and at any other location identified by the IESO" should be included in the Application. RES Transmission relied on all of this information in preparing its Application.

- a) Assumptions with respect to the specific uses, modifications, and expansions to HONI's existing stations for the Reference Design and the Preferred Design are addressed in RES Transmission's Application at Exhibit G-1-1 and, in particular, in Table G-1. This is also represented graphically in RES Transmission's Application at Exhibit G-2-1, which is reproduced on the following page. Additional and more comprehensive information regarding the facilities required to implement RES Transmission's Preferred Design is included in the IESO Feasibility Study for the Preferred Design (Exhibit H-2-3).





b) RES Transmission’s Application provided estimates of costs that would be incurred by HONI to accommodate both the Preferred Design and the Reference Design, at Exhibit B-1-1, Table B-2 (reproduced on the following page), as well as in Exhibit P-4-3, pages 1 through 4 of 4 and Figure P-3. As shown, RES Transmission estimates that the cost, to HONI, of upgrades and interconnections

to its existing transformer stations to achieve at least 650 MW of transfer capacity are \$103 million for the Reference Design and \$128 million for the Preferred Design (i.e., a \$25 million cost difference). Included in these estimates are costs for series compensation facilities for the Preferred Design which are estimated at \$15 million for 40% compensation between Wawa and Marathon, and an additional \$25 million for 50% compensation between Marathon and Lakehead, when and if more than 614 MW of transfer capacity is required.

Table B-2 from RES Transmission’s Application

Design Scenario for Preliminary Preferred Route	Circuits	Transfer Capacity (MW)	Bid Amount	Other Costs (Hydro One) (\$M)	Total Costs (\$M)	Avoided Costs (\$M)	Incremental Cost (\$M/MW)
Reference Design	2	650	\$493	\$103	\$596	Base	NA
Preferred Design (Stage 1)	1	387	\$413	\$20	\$433	\$163	NA
Preferred Design (Stage 2)	1	436	\$413	\$35	\$448	\$148	\$0.31
Preferred Design (Stage 3)	1	484	\$413	\$43	\$456	\$140	\$0.17
Preferred Design (Stage 4)	1	614	\$413	\$103	\$516	\$80	\$0.46
Preferred Design (Stage 5)	1	684	\$413	\$128	\$541	\$55	\$0.36

- c) The cost estimates set out above are based on and informed by RES Transmission’s affiliates’ extensive experience in designing, procuring, and constructing interconnections and upgrades to existing transformer stations, including series compensation facilities, comparable to the ones included in the Preferred Design for the East-West Tie line.
- d) At Exhibit N-1-1, page 6 of 7, lines 3-7 of its Application, RES Transmission states that “[t]he Applicant will coordinate with Hydro One who will be responsible for installing the physical interconnections into the stations. This substation connection work will need to be completed on or before November 2, 2018 in order to allow for testing of the transmission line.” RES Transmission’s assessment of schedule risks identified “untimely decisions or actions by regulatory agencies and Hydro One” as a moderate schedule risk for both the development and construction phases of the Project, as described at Exhibit N-2-3, page 2 of 3 and Exhibit N-3-3, page 3 of 7.

If HONI does not assume the responsibility for designing, constructing, owning, and operating series compensation facilities to accommodate the Preferred Design, RES Transmission is prepared to separately design, procure, and construct the facilities at the costs indicated in the response to Question 2 (b) above (i.e., currently estimated at \$15 million for 40% compensation;

approximately 36 Ohms between Wawa and Marathon and another \$25 million for 50% compensation; and approximately 62 Ohms between Marathon and Lakehead). Such costs would be in addition to the Development and Construction Cost Proposal described in RES Transmission's Application at Exhibit B-1-1, pages 18-21 of 35 and Exhibit P-5-1, pages 7-12 of 12. In any event, the combined cost of the line, interconnections, and substation upgrades remains unchanged from RES Transmission's Application – only the responsibility for the series compensation portion of such costs could change.

## 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.

### Responses:

#### 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
Populus-Terminal	345kV Double Circuit, 217km	\$885M	After permitting	\$832M	-\$53M	Savings on land and right-of-way acquisition and partnership with another entity subsequent to budget approval.
Mona-Oquirrh	500kV Single Circuit, 108km & 345kV Double Circuit, 51km	\$402M	After permitting	\$373M	-\$29M	Savings on land and right-of-way acquisition and regulatory approval of AFUDC.
Sigurd-Red Butte	345kV Single Circuit, 278km	\$370M	After permitting	\$370M*	\$0*	

\*Forecasted. Project is under construction.

#### b) Schedule Variance Table

Name of project	Details of project	Estimated development and construction time	Stage of process at which estimate created	Actual development and construction time	Variance	Reason for variance
Populus-Terminal	345kV Double Circuit, 217km	May '06 to Feb. '09	At project initiation	May '06 to Nov '10	21 months	Management of public opposition to line route siting required extensive and repeated route alternative

Name of project	Details of project	Estimated development and construction time	Stage of process at which estimate created	Actual development and construction time	Variance	Reason for variance
						analysis. Reduced load growth and overall reductions in forecasted customer demand for energy.
Mona-Oquirrh	500kV Single Circuit, 108km & 345kV Double Circuit, 51km	Jan. '07 to Oct.'10	At project initiation	Jan '07 to Jun. '13	32 months	Management of public opposition to line route siting required extensive and repeated route alternative analysis. Additional state regulatory process was added outside of the permit plan. Reduced load growth and overall reductions in forecasted customer demand for energy.
Sigurd-Red Butte	345kV Single Circuit, 278km	Dec. '09 to Jun. '14	At project initiation	Dec. '09 to Jun. '15	12 months	Changes in the United States National Environmental Policy Act permitting process. Extensive interagency coordination among several impacted federal agencies was required.

# **Appendix 1**

## Expertise

- Civil Engineering
- Business Administration
- Portfolio Management
- Project Management
- Transmission Line Design

## Education

- B.S. Civil Engineering, Iowa State University, 2000
- MBA, University of Iowa, 2004

## Organizations

- Beta Gamma Sigma Honors Society
- Big Brothers and Big Sisters of America

## Certifications/Affiliations

- American Society of Civil Engineers

## Registration

- Professional Engineer, Civil Engineering

## Honors and Activities

- Beta Gamma Sigma Honors Society graduate

## Total Years of Experience

- 12

Mr. Weber is Director – Transmission Joint Ventures for MidAmerican Transmission, LLC. He is responsible for business development and commercial negotiation functions relative to acquiring business opportunities for the company. His efforts have resulted in the company acquiring over \$1.5 billion in opportunities to date. In addition, Brian is MidAmerican Transmission's lead in finance and accounting, as well as regulatory functions. He also leads policy advocacy for regulatory and political initiatives affecting electric transmission.

### Representative Experience:

*MidAmerican Transmission, LLC (a subsidiary of MidAmerican Energy Holdings Company)*

**Director – Transmission Joint Ventures: November 2008 – present**

*MidAmerican Energy Holdings Company (MEHC)*

**Vice President: March 2009 – June 2012**

Mr. Weber served as Vice President in a joint venture between MEHC and American Electric Power. In this capacity he performed the following functions:

- Led business development and negotiations for commercial transmission valued at over \$100 million. Directed financial, legal and regulatory teams to support project development, regulatory initiatives and commercial transactions.
- Led policy advocacy efforts for regional transmission organizations and other regional forums.

*PacifiCorp (a subsidiary of MidAmerican Energy Holdings Company)*

**Manager – Transmission, Strategy and Policy: August 2006 – November 2008**

In this capacity, Brian performed the following functions:

- Led economic planning, regulatory, and regional and federal electric transmission policy functions.
- Led economic analysis and established business cases for expansion and acquisition projects including the \$6 billion PacifiCorp Energy Gateway program.
- Led Federal Energy Regulatory Commission rate filings and regulatory analysis for the transmission business unit.
- Led negotiations for large joint projects, and completed joint development agreements representing over \$2 billion in joint project initiatives.



**Brian David C. Weber**  
*Director – Transmission Joint Ventures*

*MidAmerican Energy Company (a subsidiary of MidAmerican Energy Holdings Company)*

**Investment Portfolio Manager (Delivery Services): January 2006 – August 2006**

In this capacity Mr. Weber performed the following functions:

- Provided budget recommendations for the delivery business unit representing a ten-year plan of over \$1 billion.
- Provided independent review and recommendation for all delivery services capital projects over \$100 thousand in total expenditures.
- Established database mechanisms and tools used to track approvals for expenditures and amounts, and causes of actual variances from authorized levels.
- Initiated various new technology initiatives to evaluate aging assets and to prioritize expenditures for replacement and mitigation activities.

*MidAmerican Energy Company (a subsidiary of MidAmerican Energy Holdings Company)*

**Senior Engineer – High Voltage Engineering: June 2000 – January 2006**

In this capacity Mr. Weber performed the following functions:

- Lead designer and project manager for over 200 transmission line projects involving new construction, rebuilds and relocations.
- Led creation of a company-wide transmission risk management program. Project manager for rating and clearance analysis of over 2,500 miles of electric transmission lines.
- Established an estimating and expenditure tracking database and internal rate of return analysis tools to optimize construction techniques and to evaluate construction standards.
- Led public informational meetings for new transmission lines for multiple projects, and supplied testimony as an expert witness in state regulatory siting, as well as determination of need hearings.



## RESUME

**NAME:** Stephen Cookson

**NATIONALITY:** Canadian

**EMPLOYER:** Renewable Energy Systems Canada Inc.  
300 Léo-Pariseau, Suite 2516  
Montréal, Québec, H2X 4B3  
Tel: (514) 515-2113

**CURRENT POSITION:** Senior Development Manager

**EDUCATION:** Graduated 2001 – Mechanical Engineering  
Graduated 1998 – B.A. (Spanish)  
Dalhousie University, Halifax, Nova Scotia

**PROFESSIONAL** Professional Engineer – Order of Engineers of Quebec

### PROFESSIONAL EXPERIENCE:

2007 to date      **Renewable Energy Systems Canada Inc.** – Senior Development Manager

- Originally focused on the development of Ontario and Quebec utility-scale wind energy projects. Responsibilities included management of the environmental assessment process, land acquisition, permitting, budgeting, planning, and stakeholder relationships. Successfully closed a 100MW project on Crown lands in Ontario (Greenwich) and a 150MW project on Crown and private lands in Quebec (Massif du Sud).
- Currently focused on supporting strategic development activities of RES Canada in Ontario, Quebec, and British Columbia. Responsibilities include providing guidance to RES Canada staff on greenfield wind developments, identifying and managing partnership/acquisition opportunities, financial screening of projects, high-level stakeholder and Aboriginal relationships, policy/lobbying initiatives, and interaction with OEMs and industry players.

2002-2006      **Seneca Engineering Consulting** – Project Manager

- Provided consulting engineering and project management services to world-class manufacturing companies for capital initiatives totaling over \$20M. Managed the implementation of energy, industrial-process, and plant infrastructure projects.

# **Appendix 2**

## First Nation and Métis Engagement Log – East West Tie Line designation process

**Last Updated:  
March 28<sup>th</sup> 2013**

Item #	Date	Organization/ Department	Contact Name(s)	Title	Contact Information	Note
1.	May 2 <sup>nd</sup> 2012	Fort Williams First Nation	Ian Bannon Edmond Colins	n/a	90 Anemki Dr., Suite 200, Thunder Bay, ON, P7C 4Z2	<ul style="list-style-type: none"> <li>• REST met with Fort Williams contacts to explain REST potential involvement in upcoming East West designation process.</li> <li>• REST presented company and brief overview of planned activities for the designation and development of the East West tie.</li> </ul>
2.	May 3 <sup>rd</sup> 2012	Odjibways of Pic River	Chief Roy Michano	Chief	PO Box 193 Heron Bay ON P0T 1R0	<ul style="list-style-type: none"> <li>• REST met with Pic River Chief to explain REST potential involvement in upcoming East West designation process.</li> <li>• REST presented company and brief overview of planned activities for the designation and development of the East West tie.</li> </ul>
3.	May 3 <sup>rd</sup> 2012	Michipicoten First Nation	n/a	n/a	RR1, PO Box 1, Site 8, Wawa, ON, P0S 1K0	<ul style="list-style-type: none"> <li>• REST dropped in Michipicoten FN to provide REST company brochures and basic company information, no meeting was held with representatives as none were available.</li> </ul>
4.	May 3 <sup>rd</sup> 2012	Red Rock	n/a	n/a	PO Box 1030, 2 Main St. Lake, Helen Reserve Nipigon ON P0T 2J0	<ul style="list-style-type: none"> <li>• REST dropped in Red Rock Nation to provide REST company brochures and basic company information, no meeting was held with representatives as none were available.</li> </ul>
5.	July 18 <sup>th</sup> , 2012	Fort Williams First Nation	Chief Peter Collins	Chief	90 Anemki Dr., Suite 200, Thunder Bay, ON, P7C 4Z2	<ul style="list-style-type: none"> <li>• REST invited Chief Collins to discuss potential FN engagement for the development plan for the East West tie designation process.</li> <li>• Due to the NDA in place between Bumkashwada and EWT meeting was</li> </ul>

						refused on grounds of non-disclosure requirements
6.	July 18th, 2012	Michipicoten First Nation	Chief Joe Buckell	Chief	RR1, PO Box 1, Site 8, Wawa, ON, P0S 1K0	<ul style="list-style-type: none"> <li>• REST invited Chief Buckell to discuss potential FN engagement for the development plan for the East West tie designation process.</li> <li>• Due to the NDA in place between Bumkashwada and EWT meeting was refused on grounds of non-disclosure requirements</li> </ul>
7.	July 18th, 2012	Pays Plat First Nations	Chief Xavier Thompson	Chief	10 Central Place Pays Plat ON P0T 3C0	<ul style="list-style-type: none"> <li>• REST invited Chief Thompson to discuss potential FN engagement for the development plan for the East West tie designation process.</li> <li>• Due to the NDA in place between Bumkashwada and EWT meeting was refused on grounds of non-disclosure requirements</li> </ul>
8.	August 9 <sup>th</sup> 2012	Fort Williams First Nation	Chief Peter Collins	Chief	90 Anemki Dr., Suite 200 Thunder Bay ON P7C 4Z2	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
9.	August 9 <sup>th</sup> 2012	Michipicoten First Nation	Chief Joe Buckell	Chief	RR1, PO Box 1, Site 8 Wawa ON P0S 1K0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in</li> </ul>

						<p>forum deemed most appropriate to FN.</p> <ul style="list-style-type: none"> <li>• A copy of the letter is included in the log</li> </ul>
10.	August 9 <sup>th</sup> 2012	Odjibways of Pic River	Chief Roy Michano	Chief	PO Box 193 Heron Bay ON P0T 1R0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
11.	August 9 <sup>th</sup> 2012	Pays Plat First Nations	Chief Xavier Thompson	Chief	10 Central Place Pays Plat ON P0T 3C0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
12.	August 9 <sup>th</sup> 2012	Pic Mobert	Chief Johanna Desmoulin	Chief	PO Box 717 Mobert ON P0M 2J0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in</li> </ul>

						forum deemed most appropriate to FN. <ul style="list-style-type: none"> <li>• A copy of the letter is included in the log</li> </ul>
13.	August 9 <sup>th</sup> 2012	Red Rock	Chief Arlene Wawia	Chief	PO Box 1030, 2 Main St. Lake, Helen Reserve Nipigon ON P0T 2J0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
14.	September 10 <sup>th</sup> 2012	Métis Nation of Ontario (MNO)	Jason Taylor Maden (legal) and Cameron Burgess	Legal and Chair of Consultation Committee		<ul style="list-style-type: none"> <li>• Meeting was held at JTM Law office in Toronto between MNO representatives and REST</li> <li>• Lunch followed</li> <li>• Minutes of the meeting are attached to the log</li> </ul>
15.	September 13 <sup>th</sup> 2012	Métis Nation of Ontario (MNO)	Jason Taylor Madden (legal) and Cameron Burgess	Legal and Chair of Consultation Committee		<ul style="list-style-type: none"> <li>• Follow up e-mail was sent requesting one-pager to initiate consultation framework discussions</li> </ul>
16.	September 27 <sup>th</sup> 2012	Animbiigoo Zaagi'igan Anishinaabek First Nation (Lake Nipigon Ojibway)	Chief Yvette Metansinine	Chief	PO Box 120, Beardmore, ON, P0T 1G0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
17.	September	Biinjitiwabik Zaaging	Chief Velda	Chief	General Delivery,	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and</li> </ul>

	27 <sup>th</sup> 2012	Anishnabek First Nation (Rocky Bay)	Lesperance		Macdiarmid, ON, P0T 2B0	<p>regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</p> <ul style="list-style-type: none"> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
18.	September 27 <sup>th</sup> 2012	Bingwi Neyaashi Anishinaabek (Sand Point) First Nation	Chief Paul Gladu	Chief	146 Court Street South, Thunder Bay, ON, P7B 2X6	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
19.	September 27 <sup>th</sup> 2012	Ginoogaming First Nation	Chief Ceila Echum	Chief	PO Box 89, Long Lac, ON, P0T 2A0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
20.	September	Long Lake No. 58	Chief Allen	Chief	PO Box 609, Long Lac, ON,	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and</li> </ul>

	27 <sup>th</sup> 2012	First nation	Towegishig		P0T 2A0	<p>regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</p> <ul style="list-style-type: none"> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
21.	September 27 <sup>th</sup> 2012	Missanabie Cree First Nation	Chief Kim Rainville	Chief	174B highway 17 East, Bells Point, Garden River, ON, P6A6Z1	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
22.	September 27 <sup>th</sup> 2012	Ojibways of Batchewana	Chief Dean Sayers	Chief	236 Frontenac Street, Sault Ste Marie, ON, P6A 5K9	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
23.	September	Ojibways of Garden	Chief Lyle Sayers	Chief	RR4, 7 Shingwauk Street,	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and</li> </ul>



	27 <sup>th</sup> 2012	River			Graden River, ON, P6A 6Z8	<p>regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</p> <ul style="list-style-type: none"> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
24.	September 27 <sup>th</sup> 2012	Kiashke Zaaging Anishinaabek (Gull Bay First Nation)	Chief Miles Nowejejick	Chief	188 General Delivery, Gull Bay, ON, P0T 1P0	<ul style="list-style-type: none"> <li>• REST sent out letter, by e-mail and regular mail, informing FN of participation in the OEB designation process for the East-West Tie transmission line.</li> <li>• Request was made to meet in order to discuss potential concerns including treaty rights, potential impacts and mitigation strategies</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
25.	October 3 <sup>rd</sup> 2012	Bingwi Neyaashi Anishinaabek (Sand Point) First Nation	Jordan Hatton	Director of Lands and Resources	<a href="mailto:jhatton@shawbiz.ca">jhatton@shawbiz.ca</a> Phone: 807-623-2724 Fax: 807-623-2764 Cell: 807-472-9619	<ul style="list-style-type: none"> <li>• Received e-mail from BNA indicating support for the EVT project.</li> <li>• E-mail indicated that verbal agreements between BNA and Red Rock and Pays Plat First Nation indicate that RR and PPFN should be approached.</li> <li>• E-mail is attached to the log.</li> </ul>
26.	October 11 <sup>th</sup> 2012	Métis Nation of Ontario (MNO)	Jason Taylor Madden (legal) and Cameron Burgess	Legal and Chair of Consultation Committee	<a href="mailto:jason@jtmlaw.ca">jason@jtmlaw.ca</a> <a href="mailto:cameronb@metisnation.org">cameronb@metisnation.org</a>	<ul style="list-style-type: none"> <li>• Follow up e-mail requesting follow up call or meeting from September meeting.</li> </ul>
27.	October 22 <sup>nd</sup> 2012	Ojibways of Garden River	Chief Lyle Sayers	Chief	RR4, 7 Shingwauk Street, Graden River, ON, P6A 6Z8	<ul style="list-style-type: none"> <li>• Received letter from GRFN in response to September introduction letter</li> <li>• GRFN expressed support for the</li> </ul>

						<ul style="list-style-type: none"> <li>project and appreciates RES outreach.</li> <li>Indicated interest in partnering in the economic development in the area.</li> <li>The letter is attached to the log.</li> </ul>
28.	January 18 <sup>th</sup> 2013	Fort Williams First Nation	Chief Peter Collins	Chief	90 Anemki Dr., Suite 200 Thunder Bay ON P7C 4Z2	<ul style="list-style-type: none"> <li>REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>A copy of the letter is included in the log</li> </ul>
29.	January 18 <sup>th</sup> 2013	Michipicoten First Nation	Chief Joe Buckell	Chief	RR 1, PO Box 1, Site 8 Wawa ON P0S 1K0	<ul style="list-style-type: none"> <li>REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>A copy of the letter is included in the log</li> </ul>
30.	January 18 <sup>th</sup> 2013	Odjibways of Pic River	Chief Roy Michano	Chief	PO Box 193 Heron Bay ON P0T 1R0	<ul style="list-style-type: none"> <li>REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>A copy of the letter is included in the log</li> </ul>
31.	January 18 <sup>th</sup>	Pays Plat First Nations	Chief Xavier	Chief	10 Central Place	<ul style="list-style-type: none"> <li></li> </ul>

	2013		Thompson		Pays Plat ON P0T 3C0	
32.	January 18 <sup>th</sup> 2013	Pic Mobert	Chief Johanna Desmoulin	Chief	PO Box 717 Mobert ON P0M 2J0	•
33.	January 18 <sup>th</sup> 2013	Red Rock	Chief Arlene Wawia	Chief	PO Box 1030, 2 Main St. Lake, Helen Reserve Nipigon ON P0T 2J0	•
34.	January 18 <sup>th</sup> 2013	Animbiigoo Zaagi'igan Anishinaabek First Nation (Lake Nipigon Ojibway)	Chief Yvette Metansinine	Chief	PO Box 120, Beardmore, ON, P0T 1G0	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
35.	January 18 <sup>th</sup> 2013	Biinjitiwabik Zaaging Anishnabek First Nation (Rocky Bay)	Chief Velda Lesperance	Chief	General Delivery, Macdiarmid, ON, P0T 2B0	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
36.	January 18 <sup>th</sup> 2013	Bingwi Neyaashi Anishinaabek (Sand Point) First Nation	Chief Paul Gladu	Chief	146 Court Street South, Thunder Bay, ON, P7B 2X6	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to</li> </ul>

						FN. <ul style="list-style-type: none"> <li>• A copy of the letter is included in the log</li> </ul>
37.	January 18 <sup>th</sup> 2013	Ginoogaming First Nation	Chief Ceila Echum	Chief	PO Box 89, Long Lac, ON, P0T 2A0	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
38.	January 18 <sup>th</sup> 2013	Long Lake No. 58 First nation	Chief Allen Towegishig	Chief	PO Box 609, Long Lac, ON, P0T 2A0	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
39.	January 18 <sup>th</sup> 2013	Missanabie Cree First Nation	Chief Kim Rainville	Chief	174B highway 17 East, Bells Point, Garden River, ON, P6A6Z1	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
40.	January 18 <sup>th</sup> 2013	Ojibways of Batchewana	Chief Dean Sayers	Chief	236 Frontenac Street, Sault Ste Marie, ON, P6A 5K9	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> </ul>

						<ul style="list-style-type: none"> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
41.	January 18 <sup>th</sup> 2013	Ojibways of Garden River	Chief Lyle Sayers	Chief	RR4, 7 Shingwauk Street, Graden River, ON, P6A 6Z8	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
42.	January 18 <sup>th</sup> 2013	Kiashke Zaaging Anishinaabek (Gull Bay First Nation)	Chief Miles Nowegejick	Chief	188 General Delivery, Gull Bay, ON, P0T 1P0	<ul style="list-style-type: none"> <li>• REST sent out letter, by regular mail, informing FN of REST submission to the designation process.</li> <li>• Proposed participation plan and article describing the various submissions was included in the letter.</li> <li>• Follow up meetings were offered in forum deemed most appropriate to FN.</li> <li>• A copy of the letter is included in the log</li> </ul>
43.	February 5 <sup>th</sup> 2013	Odjibways of Pic River	Chief Roy Michano	Chief	PO Box 193 Heron Bay ON P0T 1R0	<ul style="list-style-type: none"> <li>• REST received voicemail from Chief Michano indicating they received January 18<sup>th</sup> 2013 letter and forwarded to person responsible for EWT corridor management.</li> <li>• REST returned call and left message with offer to meet with OPR for further discussions</li> <li>• On further call REST received</li> </ul>

						confirmation that a meeting at this stage would be premature given OPR involvement in EWT LP through the Bumkushwada LP.
44.	February 21 <sup>st</sup> 2013 (Letter dated February 5 <sup>th</sup> 2013)	Odjibways of Pic River	Chief Roy Michano	Chief	PO Box 193 Heron Bay ON P0T 1R0	<ul style="list-style-type: none"> <li>• REST received letter from OPR indicating that a meeting at this stage would be premature given OPR involvement in EWT LP through the Bumkushwada LP.</li> </ul>
45.	February 26 <sup>th</sup> 2013 (Letter dated January 24 <sup>th</sup> 2013)	Batchewana First Nation of Ojibways	Chief Dean Sayers	Chief	236 Frontenac Street, Sault Ste Marie, ON, P6A 5K9	<ul style="list-style-type: none"> <li>• REST received letter from BFN sent to all prospective designees.</li> <li>• Letter indicates that any activities involving water, lands, and resources in BFN original reserve must meet with BFN before they proceed.</li> <li>• Letter indicates that BFN is governed by it's Law and Policies which include consultation policy and detailed permitting process that cultivate positive working relationships with proponents.</li> <li>• Through letter, BFN asserts interest in the project and expects to be key player in activities taking place on BFN original land.</li> <li>• Letter indicates that BFN Letter of Assertion and map of BFN Original Reserve Map is included but no letter or map was included.</li> </ul>