

# Alberta Energy and Utilities Board

## Application to Construct and Operate Transmission Facilities

Albian Sands Energy Inc.  
Muskeg River Mine & Jackpine Mine

August 17, 2007

## **APPLICATION**

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Shell Canada Limited (Shell), as operator, on behalf of Albian Sands Energy Inc. (“Albian”), hereby applies for and requests the following under sections 14, 15, and 16 of the *Hydro and Electric Energy Act (HEEA)*:

Approval and a request for a permit and licence under sections 14 and 15 of the *HEEA* for 260 kV transmission assets described as follows:

- Construct and operate a 10 km double circuit 260 kV transmission line from the ATCO Power substation 847S located at the Muskeg River Mine plant site to the Albian 260/72 kV substation located at the Jackpine Mine plant site.
- Construct and operate a 260 kV substation with line disconnecting switches and breakers at the new Jackpine Mine Plant site.

Exemption from sections 14 and 15 of the *HEEA* under section 16(1) is requested for 72 kV transmission assets as the proposed project will meet the requirements of section 16(1)(a) and 16(1)(b). This application will also provide the Board with information as contemplated under section 16(2) as outlined in Directive 028 for the development of the following within the Albian Lease 13 site:

- Construct and operate two 72 kV (double circuit) overhead lines for power distribution to ore preparation loads, mining, CT booster station and barges.
- Construct and operate a new 72 kV Gas Insulated Switchgear indoor substation to feed overhead 72 kV lines and feeds to new 25 kV indoor Switchgear.

Shell will file a future application to request approval and a Connection Order under section 18 of the *HEEA*, and any other portions of the *HEEA*, as required to approve the connection of the proposed additional transmission facilities.

Shell submits that approval to construct and operate the proposed additional 25 kV distribution assets is not required if the concurrent application (EUB Application 1517843) to amend the Muskeg River Mine Industrial System is approved by the Board. Shell is therefore not making an application under Part 3 of the *HEEA* for the development of the following 25 kV distribution lines within the Albian Lease 13 site:

- Construct and operate 25 kV indoor switchgear to distribute to various plant loads.
- Construct and operate 1 overhead 25 kV line to supply power to the Pleistocene/Basal wells and infrastructure loads.

Attachment 1 contains the completed Directive 028 Schedule 1.

## **INTRODUCTION**

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Shell Canada Limited (Shell) severally owns 60% of Albian and has received approval from the EUB under Decision 2004-009 to expand its operation at the Albian lease site (Lease 13) to

include an oil sands mine and bitumen extraction plant (Application 1271285) at the Jackpine Mine project site (please see Attachment 7, Drawing 1). Shell also received approval for a cogeneration plant under Decision 2004-009 (Application 1271307) as part of the Jackpine Mine. In addition, Shell has received conditional approval to integrate the Muskeg River Mine and the Jackpine Mine under Decision 2006-128 (Application 1398411). Final approval of the integration of the Muskeg River Mine and the Jackpine Mine was provided by Order in Counsel 8512B dated 11 April 2007.

The Jackpine Mine (EUB Approval No. 9756) is an expansion of the Muskeg River Mine project (EUB Approval No. 8512A) and will be fully integrated into the overall oilsands and bitumen extraction operations on Lease 13. Shell's approval from the EUB and the Alberta Government (Application 1398411) to expand operations at the Muskeg River Mine will more fully integrate the two mine sites. Both the Jackpine Mine and Muskeg River Mine Expansion projects will be integrated with the existing Muskeg River Mine facilities.

Attachment 2 is section 12.1 from application 1398411 to the EUB for approval of the Muskeg River Mine Expansion Project which includes the Jackpine Mine. The attachment describes the phased approach that will lead to the initial development of 16,000 m<sup>3</sup>/cd (100,000 bbl/cd) of bitumen from the Jackpine Mine. This next development phase will not include additional cogeneration units at the Jackpine mine, however, provisions will be made to accommodate about 180 MW of addition cogeneration capability in the second 16,000 m<sup>3</sup>/cd (100,000 bbl/cd) expansion phase.

Shell is making a concurrent application to the EUB for approval to amend the Industrial System Designation for the Muskeg River Mine to include the additional transmission and distribution facilities noted above.

## **PROJECT OVERVIEW**

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The following information is provided in response to section 6.1.2 and 6.1.3 of Directive 028:

*7) Provide a description of the proposed project.*

The project involves the electrical interconnection of the existing Muskeg River Mine with the Jackpine Mine which is under development. Shell proposes to tap onto the existing 260 kV lines upstream of the ATCO Power 260/25/13.8 kV transformers (and downstream of the ATCO Power substation) and build 10 km of double circuit 260 kV line to a new 260/72 kV substation at the Jackpine Mine. The provision of a 260 kV source at Jackpine Mine is part of a longer term strategy to install cogeneration units at the Jackpine Mine and provide electric energy to future developments to the north.

From the proposed 260/72 kV substation at the Jackpine Mine 72 kV and 25 kV lines are proposed to distribute electric energy to smaller substations to serve facilities that are part of the Jackpine Mine.

Please also see Attachment 2.

*8) Provide a copy of the AESO Direct Assignment letter pursuant to Section 35 of the EUA.*

Please see Attachment 4.

9) Give the dates by which both the approval and the proposed facilities are required; state the ramifications if they are not available at that time.

Please see Attachment 3. Delays in receiving EUB approval could delay construction of the proposed transmission and distribution facilities which could delay commissioning and start-up of the Jackpine Mine.

10) Describe any transmission line routing alternatives to the proposal and compare the relative impacts (environmental, social, and economic) of these alternatives with the proposal.

Please see Attachment 13.

## **APPLICABLE LEGISLATION**

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The following information is provided in response to section 6.1.1 of Directive 028:

1) Identify the sections of the *Hydro and Electric Energy Act (Revised Statutes of Alberta 2000)* under which the application is made.

### Transmission - Part 2 of the *HEEA*:

This application is made under sections 14, 15 and 16 of the *HEEA*.

Approval and a permit and licence is requested under sections 14 and 15 of the *HEEA* for the 260 kV transmission lines and Jackpine Mine 260 kV to 72 kV substation. The *HEEA* states:

14(1) No person shall construct a transmission line or any part of a transmission line, or undertake any operations preparatory to the construction of a transmission line, unless the person is the holder of a permit issued by the Board.

(2) No person shall make a significant extension or alteration of a transmission line unless the Board has amended the person's permit or issued a new permit to cover the extension or alteration.

(3) Where the Board is considering an application under subsection (1) or (2), the Board shall consider whether the facility for which approval is sought is and will be required to meet present and future public convenience and need.

(4) This section does not preclude a person proposing to apply for a permit or the person's agents from

(a) entering on any Crown or other land lying in the intended route of the transmission line to make surveys or examinations, or

(b) negotiating for the acquisition of interests in land that may be required for the transmission line.

15 No person shall operate a transmission line unless the person is the holder of a subsisting licence to operate the transmission line, issued by the Board.

We submit that the proposed 72 kV transmission facilities should be exempt from section 14 and 15 of the *HEEA*. Section 16(1) of the *HEEA* states:

16(1) Unless the Board otherwise directs, sections 14 and 15 do not apply

(a) to a person transmitting or proposing to transmit electric energy over the person's own land solely for the person's own use by means of a line that does not cross a public highway, or

(b) to the owner of an industrial system transmitting or proposing to transmit electric energy

(i) over land of which the owner of the industrial system is the owner or tenant, or

(ii) across a public highway dividing land that is owned or leased by the owner of the industrial system

for use solely by that industrial system.

As noted, Albian is the person that is "proposing to transmit electric energy over" Albian's "own land solely for" Albian's "own use by means of a line that does not cross a public highway." Further, Albian has concurrently applied to the EUB to expand the existing Muskeg River Mine industrial system. If the ISD amendment is granted, then Albian will be the "owner of an industrial system transmitting or proposing to transmit electric energy over land of which the owner of the industrial system is the owner or tenant" and no transmission lines are proposed to cross a public highway.

Section 16(2) of the *HEEA* states:

(2) Notwithstanding subsection (1), a person transmitting or proposing to transmit electric energy solely for the person's own use shall, where required by regulation to do so, immediately notify the Board of the use or proposed use and provide any details of the transmission and use that the Board requires.

Shell will respond fully to Directive 028 to ensure that the requirements of section 16(2) are provided to the EUB.

Approval under Part 2 of the *HEEA* is requested to affect the installation of the transmission facilities noted. In a future application Shell will seek approval under section 18 of the *HEEA* to connect the 260 kV lines to the assets under the existing Muskeg River Mine Industrial System Designation. Shell submits that expansion of the Muskeg River Mine will not have an adverse effect on the interconnection electric system as evidenced by the interconnection proposal provided by the AESO (see Attachment 4).

2) *Identify any other acts (e.g., Electric Utilities Act, Environmental Protection and Enhancement Act) that may affect the proposed project.*

- Electric Utilities Act
- Water Act
- Environmental Protection and Enhancement Act
- Public Lands Act

3) *State the approvals that you are applying for from the EUB.*

Shell is requesting approval and a permit and licence to construct and operate 260 kV transmission facilities and an exemption from sections 14 and 15 of the *HEEA* for 72 kV transmission facilities, all of which are proposed to be part of the expanded Muskeg River Mine Industrial System (Shell has filed application 1517843 seeking approval to include these additional assets as part of the Muskeg River Mine Industrial System) *HEEA*. Please pages 2 and 3 above.

4) *Where existing facilities are being altered, state the existing EUB Board orders (i.e., approvals, permits, and licences) for each facility.*

The following approvals, permits, and licences have been issued by the EUB:

- Order No. 2004-144, Muskeg River Mine Industrial System Designation
- Joint panel Decision 2006-128

5) *Provide a copy of your application for approval to local jurisdictions (e.g., municipal districts, counties).*

Shell is in the process of preparing an application. A copy will be made available to the Board upon request.

6) *Provide a list of companies that may be affected by your project, confirm that these companies have no concerns regarding your application, and indicate which other agreements are necessary to carry out your project.*

**ATCO Electric:** The electric distribution system owner in the area whose service area the existing and proposed expanded industrial system will reside has provide Shell with a letter of non-objection for the instillation of the additional transmission and distribution facilities (see Attachment 5).

Shell accepts the conditions noted in ATCO's Electric's letter of July 3, 2005 filed as Attachment 5 as they appear to be consistent with current statues and regulations. Shell notes that under condition 4 that the AESO has the ability under section 40(2) and (3) of the Electric Utilities Act to request the use of transmission facilities that have been designated under an Industrial System via a Board order.

**ATCO Power:** Shell intends to expand the contractual agreements with ATCO Power for the supply of hot water and electric energy from the two cogeneration units. ATCO Power has no concerns with the proposed expansions.

**ATCO Utility Services:** ATCO Utility Services is proposed to own and operate the 260 kV facilities. ATCO Utility Services has no concerns with the proposed expansions.

**Kinder Morgan Canada / Corridor Pipelines:** Kinder Morgan Canada is proposing to expand the capacity of the Corridor Pipeline system to transport the additional product that will be produced by the Muskeg River Mine by July 2009. The new pipelines will be installed adjacent to the existing pipelines. Within Lease 13, the proposed 260 kV line will cross over the existing and proposed bitumen/diluent and diluent return pipelines. Kinder Morgan has no concerns with the proposed expansions.

## **STAKEHOLDER CONSULTATION**

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Shell has followed Directive 056 to engage in a stakeholder consultation process with interested parties.

The following information is provided in response to section 7.3 of Directive 028:

*21) Describe the participant notification and involvement programs that you have conducted.*

Stakeholder consultation is part of the ongoing, long term business activities of Albian Sands Inc. Consultation with Stakeholders have been held in conjunction with the Muskeg River Mine Expansion to identify and address any concerns or issues and is documented in Section 14 Public Consultation of the Application 1398411. Last year a EUB/Federal Joint Panel conducted public hearings into the Muskeg River Expansion and the stakeholders participated. In addition, notification was given through one on one discussions and through telephone conversation. Each stakeholder was given a documents to review and discuss. E-mails to stakeholders including the information was also given. Follow-up with the Stakeholders was also undertaken to ensure no outstanding issues were present.

*22) List all stakeholders that you contacted as part of your participant notification and involvement program.*

- Athabasca Chipewyan First Nation
- Fort McKay First Nation
- Mikisew Cree First Nation
- Fort McKay Metis Local # 63
- Fort Chipewyan Metis Local #125

*23) Supply a mailing list of those in (22) above, complete with two sets of mailing labels.*

Please see Attachment 14.

*24) Identify any parties who expressed concerns about the application and the specifics of their concerns.*

No specific concerns were expressed.

*25) Summarize discussions held with potentially directly and adversely affected parties.*

Mikisew Cree First Nation, Fort McKay First Nation and Athabasca Chipewyan First Nation: Face to face meetings took place in Fort McMurray and Fort Chipewyan. Each group was asked to develop a process for discussion on how to communicate the changes in the future. Then discussions were given on this specific change. A brief paragraph was developed by Shell and given to the stakeholders along with information and maps of the changes. Each stakeholder then asked question if there were any to be discussed. Follow-up was also done to ensure no questions existed after the meeting. Please also see Attachment 17.

*26) If potentially directly and adversely affected parties raised any concerns, describe how you dealt with or will deal with them.*

No concerns raised.

27) *For those potentially directly and adversely affected parties identified above, include a confirmation of resolution of the concerns, if applicable.*

No concerns raised.

## **ELECTRICAL FACILITIES AND EQUIPMENT**

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Transmission service is provided to Lease 13 via a single circuit 260 kV line labeled 9L09 that emanates from the Dover Substation 888S and terminates at the ATCO Electric Muskeg River 847S substation located adjacent to the Muskeg River Mine plant site. When the new Joslyn Creek 849S substation that serves the Canadian Natural Resources Horizon Project is placed into service the line from Joslyn Creek 849S to Muskeg River 847S will be renamed 9L66.

Next to the ATCO Electric 847S substation is a second substation owned by ATCO Power that contains two 260/25/13.8 kV transformers and related equipment. The 25 kV facilities that emanate from the ATCO Power substation are owned by Albian and are used to provide electric energy to all the Albian mine and plant facilities. Electric energy is generated at 13.8 kV.

The proposed 260 kV lines to the Jackpine Mine will connect to the existing 260 kV lines that interconnect the ATCO Power and ATCO Electric substations.

The following electrical assets are proposed to be built to interconnection the Jackpine Mine with the Muskeg River Mine as listed on Attachment 6 and described in general below.

- Albian double circuit 10 km 260 kV transmission lines from the ATCO Power substation located at the Muskeg River Mine plant site to the Albian 260/72 kV substation located at the Jackpine Mine plant site.
- Albian substation and transmission facilities consisting of two 260/72 kV 90/120/150MVA transformers and associated equipment located at the Jackpine mine plant site
- Albian substation and transmission facilities consisting of two 72/25 kV 50/65 MVA transformers and associated equipment located at the Jackpine mine plant site
- 72 kV Gas Insulated Substation
- two new 25 kV substations one at the existing base plant at the Muskeg River Mine and one at the Jackpine Mine Site.
- two separate 72 kV (double circuit) overhead lines for power distribution to ore preparation loads, mining, CT booster station and barges.
- one overhead 25kV line to supply power to the Pleistocene/Basal wells and infrastructure loads.

Attachment 7, Drawing 2 shows the location of these facilities.

The following information is provided in response to section 6.2 of Directive 028:

18) *Describe the design and operating voltage of the transmission line and/or substations.*

For the 260 kV lines, the voltage range is 247 kV to 273 kV with an operating voltage is 260 kV. Please see Attachment 9 and Attachment 11. For the 72 kV lines the operating voltage is 72 kV and for the 25 kV lines the operating voltage is 25 kV.

*19) Describe the capacity of the transmission line for the spectrum of expected operating conditions and the expected transmission line losses.*

Design capacity for the 260 kV lines is 765 Amps. The spectrum of operating conditions will be from 0 to 756 Amps. The expected transmission line losses are 0.04 MW at normal operating conditions. Shell has not estimated the line losses on the 72 and 25 kV lines - given the short distances the line losses are anticipate being relatively small.

*20) Describe conductor size and arrangement selected and the basis for conductor selection.*

The 260 kV lines will have a conductor size of 795 kcmil 26/7 ACSR "Drake". Please see Attachment 9. The 72 kV lines will have a conductor size of 795 kcmil ACSR "Drake". The 25 kV lines will have a conductor size of 266 kcmil ACSR "Partridge".

*21) Describe the proposed structure type, including height and spacing; if more than one type of structure is proposed, state where each type will be used.*

For the 260 kV line, the structures will be steel lattice with a nominal height of 34.5 meters and 300 meter spacing. Please see Attachment 7, Drawing 5 and Attachment 9.

For the 72 kV lines, the structures will be wood poles with varying heights to allow for clearances of 5.4 to 23.3 meters to accommodate equipment crossing underneath. Please see Attachment 10. Proposed structures on the double circuit are single pole tangents using side post insulators. Angle and deadends will be 2 pole per circuit structures and switches and transitions will be 2 pole H-Frames. Please note that portions of the 72 kV lines will be moved as the mine face progresses.

For the 25 kV lines, the structures will be wood poles with a single cross arm, typical of the utility standards in Alberta.

*22) State the right-of-way width and the basis for determining the width.*

The right of way width for the 260 kV power line is 30 meters. The 260 kV power line right of way is adjacent to a minimum 100 meter set back from the Muskeg River and also adjacent to a 30 meter Intersite Pipeline Right of Way. The 260 kV power line right of way width was chosen to ensure adequate access for maintenance and to comply with good industry practice. Please see Attachment 7, Drawing 3 - Right of Way Layout and Drawing 4- Right of Way Layout Cross Sections.

The right of way width for the 72 kV power lines are 20 and 30 meters, which are adjacent to each other. The 20 meter Right of Way will be adjacent to a Slurry Conditioning Pipeline and the 30 meter Right of Way will be adjacent to a 55 meter setback. Please see Attachment 10, page 19 of 33.

*24) Describe the switching and protection features of the proposed facilities.*

All lines will have industry standard switching and protection features. Please see Attachment 12.

25) *Describe the electrical interaction of proposed lines with other facilities, such as pipelines, telephone, radio, and television transmission facilities, and surface structures.*

A pipeline induction study will be performed as the proposed transmission lines and pipelines will have adjacent rights of way. There will be no telephone, radio, and television transmission facilities or surface structures within close proximity to the proposed transmission lines.

26) *Describe the changes to existing facilities that would be required to accommodate the proposed facilities.*

The two proposed 260 kV power lines will emanate from the existing ATCO Power 847S substation (the electrical assets within the ATCO Power 847S substation are contained within the Muskeg River Mine Industrial System Designation). Taps off the existing 260 kV lines on the upstream side of the ATCO Power 260/25/13.8 kV transformers will be installed with switching and protection equipment.

27) *Provide a legible map defining the study area and state the reasons for the chosen area.*

Please see Attachment 7, Drawing 3. The study area consists of the lands between the Muskeg River Mine and the Jackpine Mine. Two route options were considered – along existing pipeline rights of way or along Muskeg River and Jackpine Creek. Although more direct, a route paralleling the existing pipeline rights of way was discounted as these rights of way overly mineable ore and will have to be moved during the life of the project. The route along side Muskeg River and Jackpine Creek will not require the transmission lines to be moved during the life of the project.

28) *Provide legible maps and drawings of the proposed facilities showing*

- *the preferred transmission line route and any alternative routes;*
- *right-of-way widths;*
- *location of the transmission line on the right-of-way;*
- *location of the transmission line relative to property lines; and*
- *mile (kilometre) points along each transmission line route.*

Please see Attachment 7, Drawing 3 and Drawing 4.

29) *Provide legible maps and/or air photo mosaics upon which the proposed transmission line route or routes have been imposed and showing the residences, landowner names, and major land-use and resource features (e.g., vegetation, topography, soil type, existing land use, existing rights-of-way, existing or potential archaeological sites, and superficial and mineable resources).*

Please see Attachment 7, Drawing 3. The proposed right of way is a minimum of 100 meters from Muskeg River and Jackpine Creek. There are no residences or other land uses in the area.

30) *Provide a legible map of the project area suitable for use in a public notice.*

Please see Attachment 16.

31) *Provide an electric single-line diagram or switching map showing new facilities in place in the system. In the case of a substation, provide an electric single-line diagram and a substation layout, including major items of equipment and the fenced boundaries of the station.*

Please see Attachment 7, Drawing 6 and Attachment 15.

32) *Discuss the construction schedule, equipment and method of construction, and method of eventual right-of-way maintenance.*

Please see Attachment 3 for the proposed construction schedule. All equipment will be industry standard as specified in Attachment 9, Attachment 10 and Attachment 11. Right of way maintenance will be performed by ATCO Utility Services to a good utility practices standard.

33) *For right-of-way clearing and maintenance, provide a copy of the Conservation and Reclamation Plan, as required by AENV (if applicable).*

A copy of the Conservation and Reclamation Plan is included in the application for Muskeg River Mine Expansion that was approved on 11 April 2007.

34) *Landscape plan—indicate those areas that require screening or landscaping, and the measures to be used.*

Not applicable. The proposed facilities are on an industrial site.

35) *Aesthetics—indicate those areas that have been identified as significant viewpoints, and describe the measures proposed to minimize the impact of towers and rights-of-way within the view area.*

Not applicable. The proposed facilities are on an industrial site.

36) *Tower location—indicate the flexibility available in locating towers to reduce the inconvenience to residents and their day-to-day activities.*

Not applicable. The proposed facilities are on an industrial site and there are no residents in the area.

37) *Archaeological and historical impacts—confirm that consultation has taken place with Alberta Community Development. If a historical and/or archaeological impact assessment is required, briefly describe any historical or archaeological sites and parks along the routes, with emphasis on major features close to or traversed by the route.*

A Historical Resource Assessment was completed and clearance was received from Alberta Community Development on 18 July 2006.

38) *For proposed route(s) and possible alternatives that will result in significant environmental impacts:*

*i) Describe the environmental evaluation of the study area, identifying the environmental factors leading to the selection of the proposed route(s).*

*ii) Show the major land-use and resource features (e.g., agriculture, residences, recreation, forestry, fish, wildlife, and visual and sensitive areas) for each route in a table in*

*appropriate units (by kilometre, total number, etc.). Provide supporting written discussion showing the s*

- iii) Present an overall comparison of the environmental impacts and costs associated with the alternative routes and proposed route and identify the environmentally preferred route.*
- iv) Summarize any discussions with municipalities held to ensure compatibility of the proposed facility with various municipal services if a proposed transmission line passes through or immediately adjacent to an urban centre.*

An Environmental Impact Assessment (EIA) was conducted on the Muskeg River Mine Expansion that included the transmission line and distribution facilities. No significant environmental impacts were identified from the assessment.

Shell filed a MRME Limited Scope request to Alberta Environment dated 22 January 2007 (Attachment 18) and was provided with an Alberta Environment Limited Scope EPEA Approval for Applications 004-20809 (Attachment 19). Shell has engaged Alberta Environment and discussions with Alberta Environment and the First Nation communities are ongoing. Shell expects EPEA approval by the end of September, 2007.

- 39) Provide a detailed cost breakdown of all alternatives on a common basis. Where identifiable, include costs to be borne by persons other than the applicant and the applicant's customer(s) in the comparison.*

Considering that the applied for transmission and distribution assets are proposed to be owned by Albian with no tariff impact on other Alberta Electric energy consumers, the development of detailed cost breakdowns for alternatives were not prepared.

Two route options were considered – along existing pipeline rights of way or along Muskeg River and Jackpine Creek. Although more direct, a route paralleling the existing pipeline rights of way was discounted as these rights of way overlay mineable ore and the pipelines will have to be moved during the life of the project. The selected route along side Muskeg River and Jackpine Creek will not require the transmission lines to be moved during the life of the project.

The base design was to extend the existing 260 kV service from the Muskeg River substation to the Jackpine Mine. Any voltage other than 260 kV would have required additional transformation assets at a higher cost and the requirement for additional land use. 72 kV distribution to the mine sites was deemed to be the most economic option. Smaller loads fed by 25 kV was deemed to be the most economic option and consistent with distribution at the Muskeg River Mine plant site and Alberta standards.

## **CONCLUSION**

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The proposed transmission and distribution assets from the Muskeg River Mine plant site to the Jackpine Mine plant site are required for the Jackpine Mine facilities, which have been approved by the EUB for construction and operation. The proposed facilities meet the requirements of the HEEA.

**Attachment 1 - Directive 028 Schedule 1**

**Attachment 2 - Section 12.1 of April 2005 Application for Approval of the Muskeg River Expansion, Project volume 1: Proposed Integration Approach**

**Attachment 3 - Schedule**

**Attachment 4 - AESO Direct Assignment letter**

**Attachment 5 – ATCO Electric Letter of Non-Objection**

**Attachment 6 – Transmission and Distribution Equipment List**

**Attachment 7 – Drawings**

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1. Jackpine Mine Area
2. Site Overview
3. Right of Way Layout
4. Right of Way Layout Cross Sections
5. 260 kV Double Circuit Line (0° - 1°) Tangent Tower Design Requirement
6. Single Line Diagram
7. include layout drawings – which ones??

**Attachment 8 – Mineral Surface Lease**

**Attachment 9 – AOSP 260 kV Transmission Line Design Criteria**

**Attachment 10 – Specifications for 72 kV Overhead Power Line**

**Attachment 11 – Specifications for 260 kV Interconnection**

**Attachment 12 – Line Protection Drawings**

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## **Attachment 13 – Route Alternatives**

## **Attachment 14 – Mailing Labels**

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Blair Whenham, Director

Fort McKay  
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Melody Lepine, Director

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Ron Quintal, President

Metis Local 125  
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Sonny Flett, President

## **Attachment 15 – 72 kV Single Line Diagrams**

## **Attachment 16 - Public Notice Map**

## **Attachment 17 - Participant Involvement Summary Form**

## **Attachment 18 - MRME Limited Scope EPEA Request**

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**Attachment 19 – MRME Limited Scope EPEA Amendment Approval 20809-00-03 2007-2009**

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