



May 14, 2009

Don Popowich
Director of Facilities
Alberta Utilities Commission
Fifth Avenue Place
4th Floor, 425 1 St SW
Calgary T2P 3L8

Dear Mr. Popowich:

Re: Submission to the Alberta Utilities Commission (Commission) of the Needs Identification Document (NID) for the Kearsley Oil Sands Project (KOSP) 240 kV Line Systemization (the Project)

In accordance with Section 34 of the *Electric Utilities Act* (EUA), Commission Rule 007 "Rule Respecting Use of Applications for Power Plants, Substations, Transmission Lines, and Industrial System Designations" (Commission Rule 007) and the Alberta Electric System Operator's (AESO) needs identification approval process practices, the AESO is hereby submitting the attached NID. The AESO intends to proceed with issuing direction to Imperial Oil Resources Ventures Limited (Imperial) to amend its Industrial Site Designation (ISD) approval and Permits & Licences for the ISD 240 kV line (L9900) subject to approval of this NID.

This Project is to increase the capacity of L9900 and transfer it to the local Transmission Facility Owner (TFO) to be systemized after commissioning. The estimated cost of this Project is \$52.9 million which includes the total cost of L9900 with the upgraded capacity. The proposed in-service date of the enhanced L9900 is February 01, 2010. In order to provide Imperial with enough lead time to modify its line design and procure material, the AESO hereby respectfully request the Commission to render a decision on this application by June 12, 2009.

Both the AESO and Imperial have conducted Participant Involvement Programs (PIPs) for the L9900 Interconnection Application and Permit and License

Application respectively. Imperial has already received approval from the Commission on February 5, 2009 for a Permit and License (Permit and License No. U2009-55) to build and operate L9900.

Please provide written notice confirming that the NID is complete or requesting additional information. Please address such notice to the attention of Deanna Merrick at deanna.merrick@aeso.ca.

Yours truly,

A handwritten signature in blue ink, appearing to read 'P. Toy', is positioned above the typed name.

Pung Toy, P. Eng.

Manager, Customer Interconnection Planning



Kearl Oil Sands Project 240 kV Line Systemization Needs Identification Document

RP-05-828

Date: April 30, 2009



	Name	Signature	Date
Author	Joseph Lee, P.Eng.		April 30, 2009
Approved	Pung Toy, P. Eng.		April 30, 2009
Reviewed	NEIL MILLAR, P.ENG		APRIL 30, 2009

APEGGA Permit to Practice P-08200

Kearl Oil Sands Project 240 kV Line Systemization NID

TABLE OF CONTENTS

1.	PROJECT DESCRIPTION	3
2.	RELATED APPLICATIONS	3
3.	AREA TRANSMISSION SYSTEM	3
3.1	Long Term Development of Area Transmission System	3
4.	NEED FOR INCREMENTAL CAPACITY AND SYSTEMIZATION	4
5.	RECOMMENDATIONS	4
5.1	Capacity Upgrade of the L9900 (Kearl Main Substation 9900S to 9L32 Connection Point)	4
5.2	Cost Recovery for the L9900	5
5.3	TFO Purchase of the L9900	5
5.4	Lump Sum Payment for Incremental Capacity of the L9900	5
	APPENDIX A SINGLE LINE DIAGRAMS	6
	FIGURE A-1: EXISTING AREA TRANSMISSION SYSTEM	7
	FIGURE A-2: NORTH OF FORT MCMURRAY FUTURE SYSTEM PLAN	8
	APPENDIX B IMPERIAL OIL RESOURCES LETTER OF AGREEMENT	9

1. Project Description

Pursuant to Decision 2009-020, Imperial Oil Resources Ventures Limited (Imperial) received approval from the Alberta Utilities Commission (Commission) on January 30, 2009 for an Industrial System Designation (ISD) with respect to its Kearl Oil Sands Project (KOSP).

Imperial also received approval from the Commission on February 5, 2009 for a Permit and License (Permit and License No. U2009-55) to build and operate a 240 kV line (L9900) from a tap point on the 9L32 line to the KOSP main substation (as shown in Figure A-1, Appendix A). The L9900 will be constructed to Imperial's standard with sufficient capacity to serve its own load. The Alberta Electric System Operator (AESO) sees a need to utilize the L9900 due to transmission system growth and to avoid future duplication of facilities.

2. Related Applications

Imperial has applied to the AESO for system access service to the KOSP.

The AESO has filed with the Commission the associated KOSP Interconnection Needs Identification Document (NID) - Commission NID Application No. 1604829 - seeking approval to integrate the L9900, as approved, with the Alberta Interconnected Electric System (AIES).

3. Area Transmission System

The single line diagram of existing and proposed transmission development north of Fort McMurray is attached as Appendix A, Figure A-2. The L9900 will interconnect with circuit 9L32 which will be extended four kilometers to the north to a proposed future switching substation site. Circuit 9L32 originates at Joslyn Creek 849S and extends to the end of double-circuit construction just beyond the Athabasca River. Circuit 9L32 is not presently energized.

3.1 Long Term Development of Area Transmission System

The L9900 will be located north of Fort McMurray in an area that is experiencing transmission system growth due to increased oil sands mining and secondary industries. The AESO has identified several potential customers with mining leases in the region that will require power supply, including Total, UTS/TECK, Value Creation Group and Shell. The AESO anticipates that a new high voltage transmission line will be needed along the same right-of-way as the L9900 within the next five to ten years.

4. Need for Incremental Capacity and Systemization

As shown in Figure A-2 of Appendix A, the AESO's planned 240 kV system in the area follows a similar route to the L9900. If each of these 240 kV lines were constructed in accordance with the respective standards, two high-voltage transmission lines would exist within close proximity: the L9900 serving Imperial's ISD and the Transmission Facility Owner (TFO) 240 kV line serving area customers. The AESO recognizes that such duplication of facilities, particularly in an area with high load growth potential and limited rights-of-way, interferes with the provision of efficient transmission system access. As a consequence, the AESO has concluded that an upgrade of the L9900, as described herein, is required to economically and effectively meet the transmission system access needs of the region.

In addition, Husky has delayed the Sunrise project in-service date to 2012. The AESO could potentially supply Husky from the proposed L9900 if it were constructed to system capacity and the Muskeg River to Black Fly line could either be delayed or cancelled.

5. Recommendations

The AESO has identified that an enhancement of the L9900 from the AIES interconnection point on 9L32 to the proposed switching substation site west of KOSP, would meet the requirements of future system access customers.

The estimated project cost (+/-30%) of the L9900 is set out below:

1. L9900 with 1x795 kcmil conductors:	\$ 33.8 million
2. Incremental cost for the 2x795 kcmil conductors:	\$ 19.1 million
3. Total Project Cost:	\$ 52.9 million

The proposed in-service date of the enhanced L9900 is February, 2010.

5.1 Capacity Upgrade of the L9900 (Kearl Main Substation 9900S to 9L32 Connection Point)

Imperial designed the L9900 with a 1x795 kcmil conductor to meet the specific needs of its ISD. In the event the Commission approves this application, the AESO and Imperial have agreed in principle to the following:

- The L9900 will be engineered and constructed with 2x795 kcmil conductors and summer/winter ratings of 753/966 MVA, which meet all applicable codes, utility practices and standards (see Appendix B); and
- Imperial will amend its ISD approval and Permit & Licence for the L9900.

5.2 Cost Recovery for the L9900

Cost recovery for the incremental capacity on the L9900 will include the purchase price of the L9900 paid by a TFO or alternatively, a lump sum payment by the AESO to Imperial for the incremental capacity of the L9900, subject to the approval of the Commission.

5.3 TFO Purchase of the L9900

The sale of the L9900 to a TFO would occur upon successful commissioning and energization of the L9900, and would be conditional upon the following:

- Agreement by the TFO to the purchase of the L9900, including the purchase price, more particularly described in section 5.4 below;
- Approval by the Commission of the purchase and sale of the L9900;
- Approval by the Commission of Imperial's amendments to the ISD approval; and
- Approval by the Commission of the transfer of the Permits and Licences for the L9900 from Imperial to a TFO.

5.4 Lump Sum Payment for Incremental Capacity of the L9900

The AESO would provide a lump sum payment to Imperial for the incremental capacity on the L9900 for future system access in the event the sale of the L9900 to a TFO did not occur for any reason.

The lump sum payment would be conditional upon the following:

- Approval by the Commission of the lump sum payment for the incremental capacity on the L9900; and
- Approval by the Commission of Imperial's amendments to the Permit and Licence to account for the incremental capacity.

APPENDIX A Single Line Diagrams

Kearl Oil Sands Project 240 kV Line Systemization NID

Figure A-1: KOSP ISD Interconnection

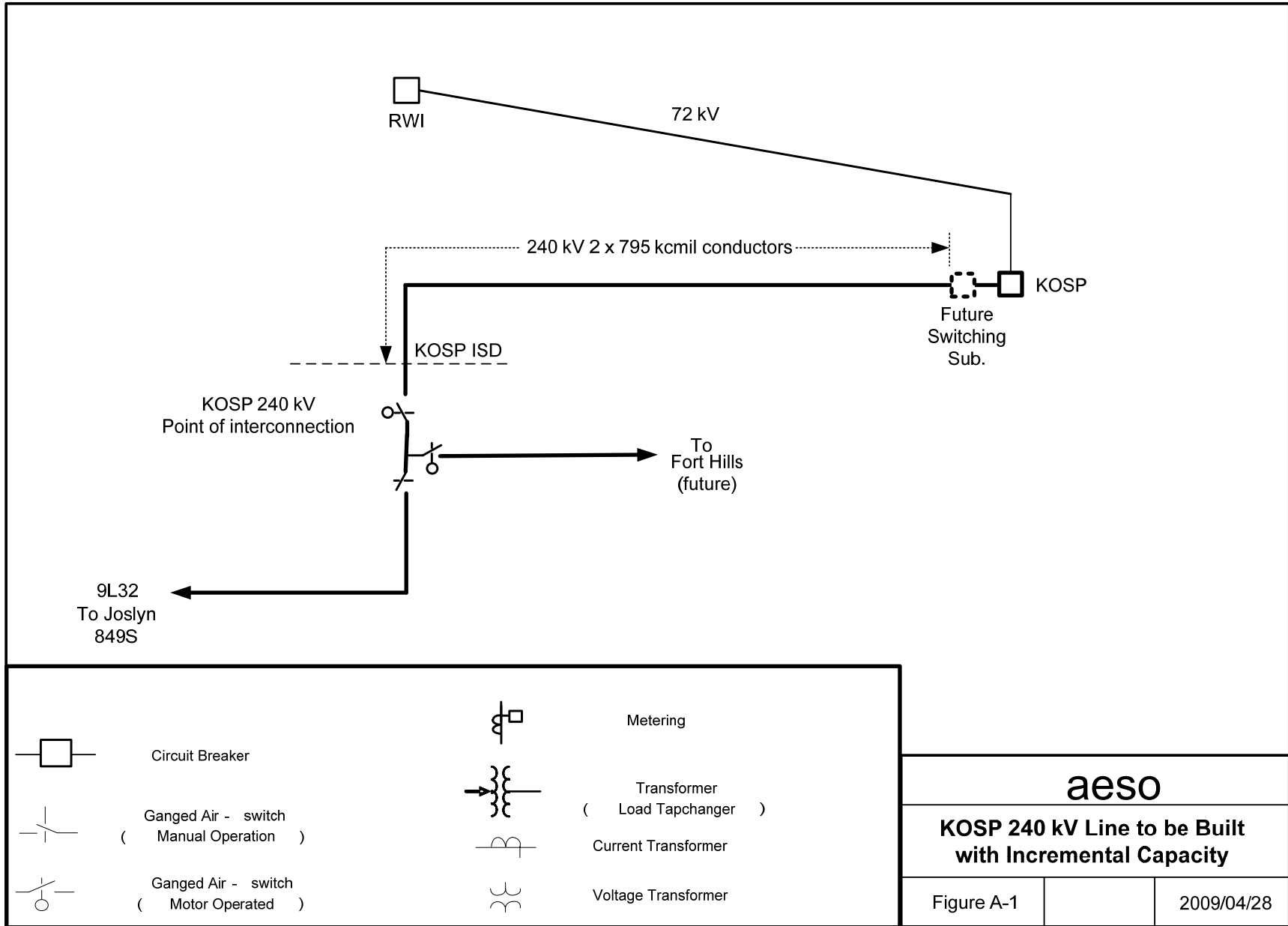
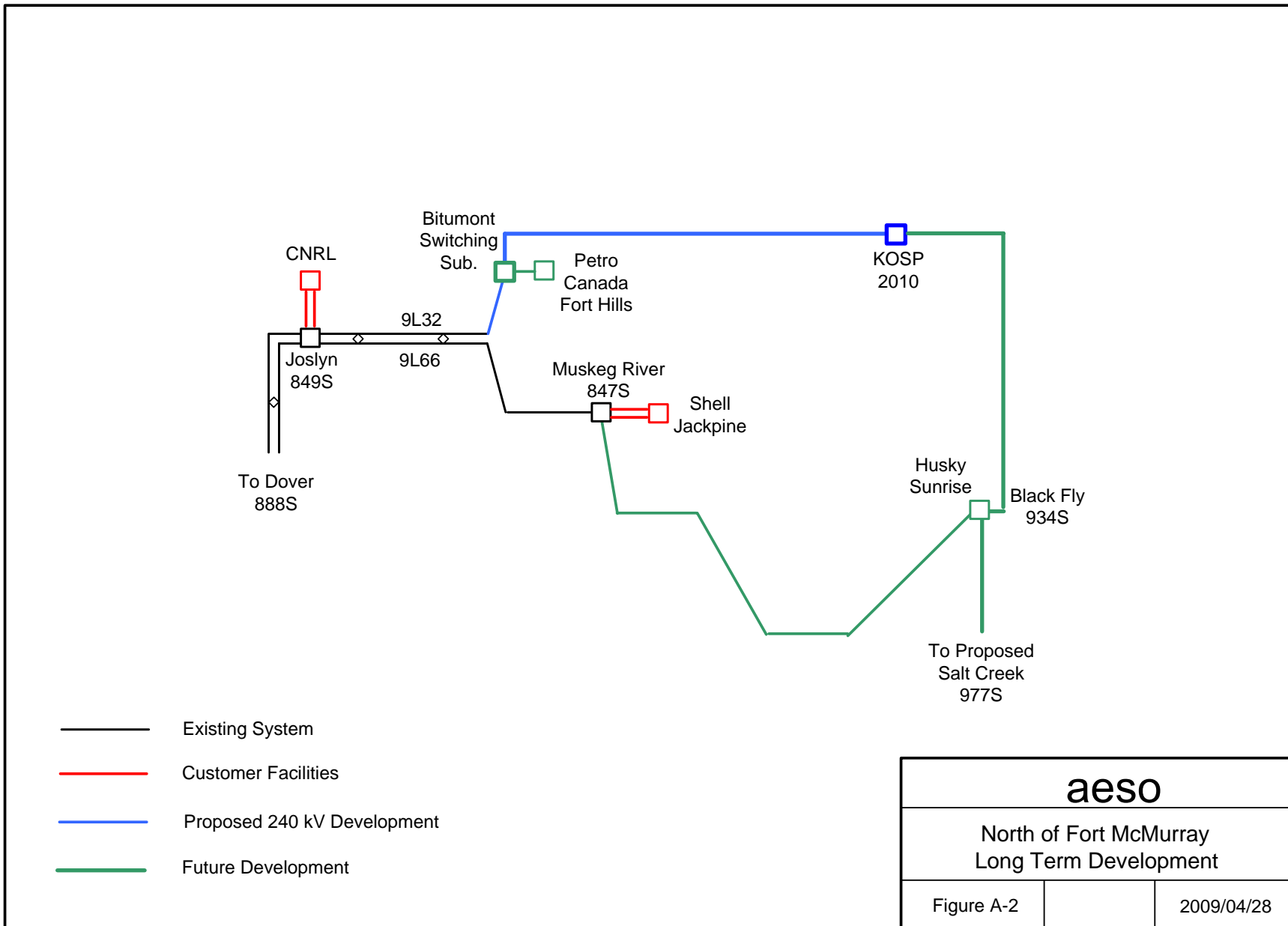


Figure A - 2: North of Fort McMurray Future System Plan



APPENDIX B Imperial Oil Resources Letter of Agreement

Imperial Oil Resources
237 Fourth Ave SW
PO Box 2480 Stn M
Calgary AB T2P 3M9

Mike A. Checkland
Manager,
Power Services

Tel: (403) 237-3400
Fax: (403) 232-5870

March 7, 2009

Alberta Electric System Operator
2500, 330 - 5 Avenue SW
Calgary, AB T2P 0L4

Attention: Mr. Dean Patterson

**Re: Need Identification Document (NID)
Kearl Transmission Line (L9900)**

Dear Mr. Patterson;

Imperial Oil Resources Ventures Limited (IORVL) has received from the Alberta Utilities Commission (AUC) Industrial System Designation (ISD) Order No. U2009-39 as well as Permit and Licence Order No. U2009-55 for the aforementioned 240 kV transmission line.

As we indicated in the ISD application and in our ongoing discussions with the AESO, subject to the completion of the required agreements and regulatory approvals IORVL is interested in increasing the thermal capacity of the transmission line and, after commissioning, transferring the asset to the AESO assigned Transmission Facility Owner (TFO).

Please consider this letter authorization for the AESO to proceed with a NID application for L9900 in anticipation of the system need for the additional capacity. If the NID is approved by the AUC, IORVL is prepared to proceed with an application to amend the above Permit to facilitate the installation of the additional conductor.

Yours truly,



Mike A. Checkland
Manager, Power Services