



October 29, 2008

Colin Lo  
Alberta Utilities Commission  
First Calgary Place East  
400, 425-1 Street SW  
Calgary, Alberta, T2P 3L8

Dear Sir;

**RE: Application No. 1589281  
Proposed 144 kV Transmission Line 7L114, ATCO Electric Portion, from  
Point of Connection with AltaLink Line 7L114 to Waddell Substation 907S  
Response to the Commissions October 28, 2008 Request for Information**

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ATCO Electric ("ATCO") is pleased to provide the following information in support of ATCO's Application No. 1589281, in response to the Commissions October 28, 2008 information request to AltaLink.

**Alignment**

**Preamble:** *(Alignment1): The AUC seeks an understanding of 7L114 from Leismer to Waddell - Route Segments cross sectional diagram*

**Request:**

1. *Please provide a copy of AltaLink route segments cross sectional diagram for 7L114 from Leismer to Waddell.*

**RESPONSE TO COMMISSIONS REQUEST ON ALIGNMENT**

As requested in the Commissions October 28, 2008 information request to AltaLink, ATCO has provided cross-section drawings for each segment of the route within ATCO's service area from the point of interconnection with AltaLink 7L114 to Waddell Substation 722S as Dwg-A-05A and Dwg-A-05B (Attachment 7).

**ADDITIONAL AMMENDMENTS**

Following further route refinement, the length of the distribution underbuild has been amended. The Transmission Line Route Map, Drawing RS-7L114-A-04, has been revised to show the new nodes and is included as RS-7L114-A-04-R1 (Attachment 8). Section 4.0 'Project Description' of the application text has been amended accordingly and is included below.

#### 4.0 PROJECT DESCRIPTION

The ATCO Electric portion of the proposed transmission line 7L114 would extend approximately 19 km from the points cited in section 2.0, and as shown on the proposed transmission line route map drawing **RS-7L114-A-04-R1 (Attachment 8)**. The line would be a single-circuit 144 kV design as described in section 6 of AltaLink's Application No. 1588514. An approximately **5.7-km** segment of the 144 kV line would be under-built with new 25 kV distribution power line, with structures as illustrated on AltaLink's drawing X1, filed with AltaLink's Application No. 1588514. The location of this under-built segment is shown on ATCO Electric's route map (**Attachment 8**). **Cross-section drawings are provided as Dwg-A-05A and Dwg-A-05B (Attachment 7).**

Details of the line specifications, right-of-way requirements and routing rationale are provided in AltaLink's Application No. 1588514. Upon completion of construction, AltaLink will hand over the transmission line to ATCO Electric, and will have transferred the right-of-way to ATCO Electric.

ATCO Electric expects that AltaLink will design and build the line in accordance with AESO's direction letters and final functional specification document, and with all applicable laws, regulations and good utility practice.

##### **Proposed Route Description**

The proposed route and reference nodes are shown on the ATCO Electric route map (**Attachment 8**). The proposed route would start at the point of interconnection with AltaLink's portion of line 7L114 at node KM12 in LSD 1, SE 2-78-9-W4M, and extend north for approximately 8.8 km to node KM21 in SW 34-78-9-W4M. The route would follow the Waddell Road with the power line structures located 1 m within the west boundary of the road plan. This segment would cross the Christina River in SE 2-78-8-W4M.

At node KM21 the line would turn west and follow an Al-Pac road for approximately 8.3 km to node KM29 in SW 1-79-10-W4M. For this segment the power line structures would be located 1 m within the north boundary of the road plan. **The 3.1-km segment (KM 21 to KM 24) would be single circuit 144-kV line and the 5.2 km segment from KM-24 to KM-29** would be under-built with a new ATCO Electric 25 kV distribution line. This segment would cross the Christina River again at NW 31-78-9-W4M.

At node KM29 the transmission line would turn north and then west, **offset 10 m from StatoilHydro's pipeline and lease boundaries**, to Waddell substation in LSD 10, NE 2-79-10-W4M. This segment is approximately 1.8 km in length. The first 0.5 km portion, from node KM29 to node KM30 in NW 1-79-10-W4M, would be under-built with a new ATCO Electric 25 kV distribution line.

For the entire length, the transmission line would require an easement with a minimum width of 20 m. The easement would overlap the existing road plans/clearings by 10 m, and extend 10 m onto adjacent Crown land. Most segments would require additional right-of-way as a vegetation control easement for up to 15 m of additional clearing. **Details may vary slightly following survey and final design.**

Please contact the undersigned at 780-733-2800 if further information is required.

Yours truly,

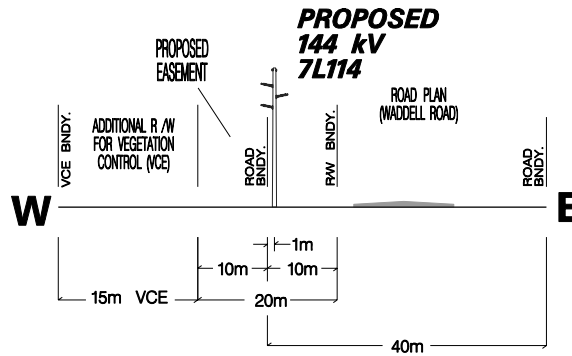
[ Original signed by ]

**Ryan Smart**

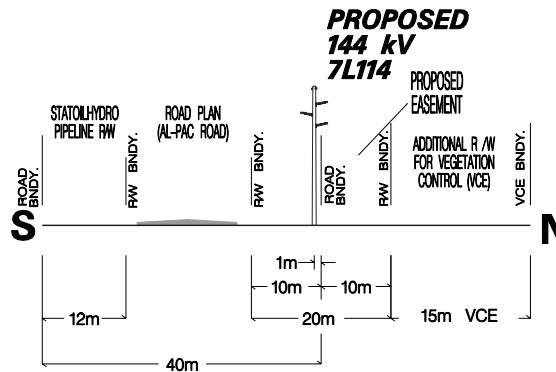
Environmental / Right-of-Way Planner

CC: H. Ng / F. Ritter, AESO, Calgary  
M.Jackson / R. Desrosier, AltaLink, Calgary  
B. Blattler, StatoilHydro, Calgary

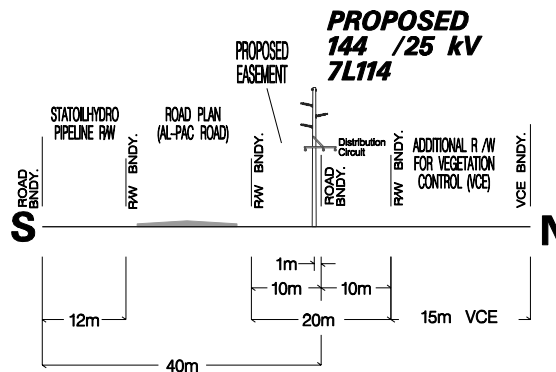
7L114 CROSS – SECTION "AE-A"  
 SEGMENT: NODE KM-12 TO KM-21



7L114 CROSS – SECTION "AE-B"  
 SEGMENT: NODE KM-21 TO KM-24



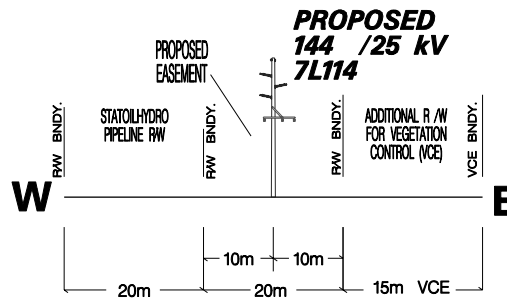
7L114 CROSS – SECTION "AE-C"  
 SEGMENT: NODE KM-24 TO KM-29



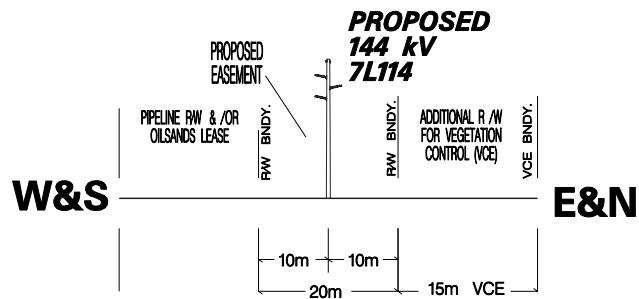
Waddell Substation  
 144 kV Transmission Project

Right of Way Cross – Section Drawings  
 ATTACHMENT 7

7L114 CROSS – SECTION "AE-D"  
 SEGMENT: NODE KM-29 TO KM-30

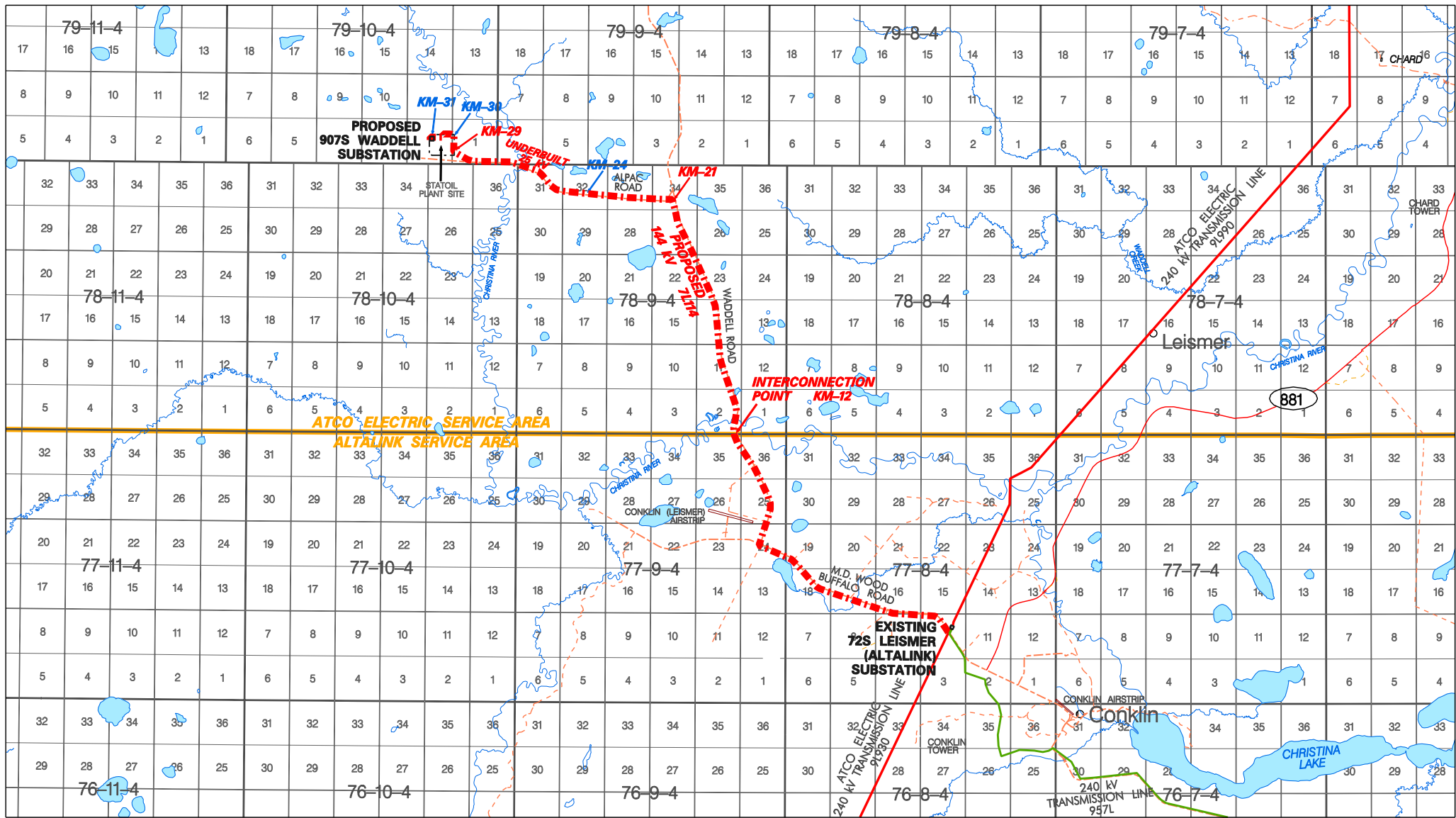


7L114 CROSS – SECTION "AE-E"  
 SEGMENT: NODE KM-30 TO KM-31



Waddell Substation  
 144 kV Transmission Project

Right of Way Cross – Section Drawings  
 ATTACHMENT 7



**LEGEND**  
 Proposed Transmission Line Route  
 Existing Transmission Line  
 Reference Node  
 Existing Transmission Facilities (Not ATCO Owned)



**ATCO Electric**

Waddell Substation  
 144 kV Transmission Project  
 REFERENCE MAP  
 ATTACHMENT 8