

AESO Transmission System Projects - Quarterly Report



- see notes at the end of this document for report terminology and definitions

Project #	Project Name	Project Description	Need Description	NID Filed	NID Approved	P and L Filed	P and L Approved	Forecast or Actual ISD	TFO	Year NID Valid	NID Estimate	PPS Estimate	TFO Forecast Cost	Project Status
388	500KV KEG Conversion	Addition of 500kV transformers at Keephills and Ellerslie substations; convert Genesee substation and transmission lines 1203L and 1209L from 240kV to 500kV operation.	Capacity Improvement	2004-05-10	2005-04-22	2006-04-13	2006-06-28	2008-06-15	AML	2004	36,152,000	66,331,373	74,697,644	Awaiting TFO Final Costs
									EPCOR	2004	2,562,000	3,065,768	3,065,766	
416	SW 240 kV Transmission	About 30 km of D/C 240 kV line from Goose Lake to Peigan and 59 km of D/C 240 kV transmission line from Peigan to N. Lethbridge. New Goose Lake substation and 240 kV breaker additions at Peigan and N. Lethbridge. Replacement of existing 138/69 kV transformers with 30/40/50 MVA LTC transformers at Drywood 415S, Pincher Creek 396S and Magrath 225S. Salvage of existing Tempest 403S substation and extension of 820L (138 kV line) to Stirling 67S. At Stirling 67S add 138 kV facilities and 138/69 kV - 30/40/50 MVA LTC transformer.	Capacity Improvement	2004-03-31	2005-05-17	2005-12-21	2009-03-10	2010-05-26	AML	2004	77,000,000	98,881,662	153,618,030	Under Construction
									Leth.	2005		26,899	35,906	
									TransAlta	2004		249,000	249,000	
466	Downtown Edmonton 240 kV Supply	240 kV cable from Castle Downs to new McDougall substation, alterations at Victoria substation and interconnection between Victoria and McDougall substations.	Capacity Improvement	2005-04-08	2005-07-14	2006-06-15	2007-02-05	2008-10-29	EPCOR	2005	34,900,000	54,304,760	83,576,258	Awaiting TFO Final Costs

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537	SE - Lethbridge Area Transmission Development	SE Lethbridge Area Transmission Development	Reliability Improvement	2007-09-27	2008-07-11	2009-03-31		2009-12-16	AML	2006	9,738,004	7,953,000	8,560,955	Awaiting AUC Decision On Facilities Application
									Leth.	2006	4,615,812	5,000,351	5,000,351	
538	SE - Brooks Area Transmission Development	SE - Brooks Area Transmission Development	Reliability Improvement	2007-09-27	2008-07-11	2008-12-18	2009-04-22	2009-11-30	AML	2007	21,264,975	23,423,300	25,794,102	Under Construction
									ATCO	2007	120,000	1,477,000	1,477,000	
539	SE Empress area development	Upgrades to the transmission system in the SE Empress Area.	Reliability Improvement	2007-09-27	2008-07-11	2008-12-12	2009-04-28	2009-09-30	AML	2006	30,287,886	43,543,000	44,455,000	Under Construction
									ATCO	2006	4,859,567	4,653,000	5,427,000	
547	PMU Keephills 320P	Upgrade existing DSM with PMU	Reliability Improvement	2006-10-20	2006-11-16	2007-06-04	2007-07-16	2009-05-31	AML	2006	162,400	226,000	226,000	Awaiting TFO Final Costs
570	Lubicon 780S Install 2-30 MVar cap banks and all associated equipment and material	Lubicon 780S - Install 2 - 30 MVar cap banks, 3-144 kV breakers and all associated equipment and material. Includes CT changes under project P569	Capacity Improvement	2006-03-06	2006-08-17	2007-08-10	2007-10-05	2009-03-12	ATCO	2005	3,300,000	4,083,000	4,083,000	Awaiting TFO Final Costs
575	Little Smoky 813S-install 3-30 Mvar cap banks and all associated equipment and material	Little Smoky 813S Install 3-30 MVar cap banks, 5-144 kV breakers and all associated equipment and material.	Capacity Improvement	2006-03-06	2006-08-17	2008-05-28	2008-09-09	2008-12-16	ATCO	2005	6,050,000	5,463,000	5,463,000	Awaiting TFO Final Costs
577	Cranberry Lake 827S install +/- 30 MVar SVC and all associated equipment and material	Cranberry Lake 827S Install +/- 30 MVar SVC and all associated equipment and material P&L received Apr 30/08	Capacity Improvement	2006-03-06	2006-08-17	2008-02-28	2008-04-30	2009-03-27	ATCO	2005	10,000,000	11,922,000	11,277,000	Awaiting TFO Final Costs
596	Gregg River 476S Decommissioning	Salvage Gregg River 476S and remove a section of transmission line	Decommissioning or Salvage	2007-02-06	2007-03-02	2007-06-11	2007-07-11	2008-07-30	AML	2006	355,925	484,800	561,988	Awaiting TFO Final Costs

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598	240 kV line 9L15 - Brintnell 876S to Wesley Creek 834S	Single circuit 240 kV line from Wesley Creek 834S to Brintnell 876S. Install 2-300 MVA 240/144 kV transformers at Wesley Creek 834S, modifications at Brintnell 876S	Capacity Improvement	2006-03-06	2006-08-17	2007-06-19	2007-11-23	2009-12-15	ATCO	2005	103,000,000	208,329,000	198,930,000	Under Construction
599	134 km Double circuit 144 kV line 7L131/7L106-Wesley Creek 834S to New Meikle 905S station	Construct 134 km d/c 144 kV line 7L131/7L106-Wesley Creek 834S to a new Meikle 905S. Modifications at Wesley Creek 834S, construct new Meikle 905S station and modifications at Hotchkiss 788S	Capacity Improvement	2006-03-06	2006-08-17	2008-07-29	2008-12-19	2010-09-01	ATCO	2005	64,000,000	193,189,000	193,189,000	Under Construction
600	105 km 144 kV line 7L133-Sulphur Point 828S to High Level 786S	Build 105km of single circuit 144 kV line 7L133 -Sulphur Point 828S to High Level 786S Modifications at Sulphur Point 828S and High Level 786S.	Capacity Improvement	2006-03-06	2006-08-17	2009-05-19		2011-04-01	ATCO	2005	21,402,000	77,558,000	77,558,000	Awaiting AUC Decision On Facilities Application
601	High Level 786S-Install +/- 30 MVAR SVC	High Level 786S-install +/- 30 MVAR SVC and all associated equipment and material	Capacity Improvement	2006-03-06	2006-08-17	2009-04-14		2010-06-15	ATCO	2005	11,890,000	12,298,000	12,298,000	Awaiting AUC Decision On Facilities Application
602	112km single circuit 144 kV line 7L113 - Ring Creek 853S to New Arcenceil 930S station	Construct 112 km single circuit 144 kV line 7L113 from Ring Creek 853S to new Arcenceil 930S. Modifications at Ring Creek and Rainbow Lake 791S	Capacity Improvement	2006-03-06	2006-08-17			2011-11-01	ATCO	2005	28,536,000		120,000,000	Awaiting TFO PPS Estimate
603	Arcenceil 930S Station - Install Synch Cond -30 +50 MVAR Synch condenser and all associated equipment	Arcenceil 930S - install - 30+50 MVAR synch condenser and all associated equipment and material	Capacity Improvement	2006-03-06	2006-08-17			2012-02-01	ATCO	2005	14,268,000		14,268,000	Preparing Functional Spec

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605	Arcenceil 930S- install +/- 30 MVar SVC and all associated equipment and material	Arcenceil 930S - install +/-30 MVar SVC and all associated equipment and material. New Arcenceil substation	Capacity Improvement	2006-03-06	2006-08-17			2011-12-01	ATCO	2005	16,051,000		16,051,000	Awaiting TFO PPS Estimate
606	Little Smoky 813S - install +/- 100 MVar SVC and all associated equipment and material	Little Smoky 813S - Install +/- 100 MVar SVC and all associated equipment and material	Capacity Improvement	2006-03-06	2006-08-17	2008-12-23	2009-06-29	2009-12-15	ATCO	2005	17,240,000	21,554,000	21,554,000	Under Construction
625	East Calgary POW Switch	POW switch to be installed on C1 (C3) and pre-insertion resistor to C2 (C4)	Reliability Improvement	2007-06-27	2007-07-27			2008-06-20	AML	2007	434,500	434,500	434,500	Awaiting TFO Final Costs
626	ENMAX South 69kV Conversion Stage 1	Convert 69 kV transmission in south Calgary to 138 kV Stage 1	Reliability Improvement	2009-04-09		2009-04-16		2010-12-15	AML			841,000	841,000	Awaiting AUC Decision On Facilities Application
									ENMAX		22,242,094	10,475,758	10,475,758	
629	Heartland Bulk Transmission Development	Edmonton area reinforcement	Reliability Improvement					2013-03-21	AML					Planning Stage
									EPCOR					
640	Ellerslie-Clover Bar 240kV	240kV Upgrades in the Edmonton area	Reliability Improvement	2008-04-08	2008-07-16	2009-03-03		2009-09-30	AML	2007	17,155,417	13,703,498	13,703,498	Awaiting AUC Decision On Facilities Application
									EPCOR	2007	1,899,463	4,586,574	4,586,574	
661	Rainbow Area UVLS	Implementation of settings at 786S, 832S, 828S and 791S for proposed under voltage load shedding scheme.	Reliability Improvement	2007-01-22	2007-05-25			2009-06-30	ATCO	2007	66,900	66,700	135,000	Awaiting TFO Final Costs
664	ENMAX CBD - Central Business District 138kV Cable Upgrades	Upgrade the existing underground 138kV cables in downtown Calgary between ENMAX SS-1 and SS-5	Reliability Improvement					2012-11-15	ENMAX	2009	62,369,000	62,368,730	62,368,730	TFO/AESO Preparing Combined Filing
670	Conversion of Gainford 165S to 138 kV.	Address system reliability concerns on 124L and Gainford 165S sub	Reliability Improvement	2007-12-18	2008-10-21	2008-08-19	2008-10-21	2009-01-17	AML	2008	2,844,601	2,803,550	2,803,550	Awaiting TFO Final Costs

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673	ATCO - Fort McMurray 144 kV Reinforcement - Salt Creek 977S	Addition of a new 240/144 kV source near Fort McMurray Salt Creek 977S 144 kV 7L135 line Salt Creek 977S to Hangingstone 820S.	Reliability Improvement					2011-06-15	ATCO	2009	38,489,000		38,489,000	Planning Stage
676	SCC Communication Upgrades	Installation of a reliable dedicated voice communications facilities from the AESO's SSC to the TFO's control centres.	Reliability Improvement	2009-01-27				2009-10-29	AML	2008	2,070,000		2,070,000	Preparing Direction
704	Southern - Alberta Telecom Reliability Enhancement Project	Construction of an alternate tele communication backup link for Southern Alberta	Reliability Improvement	2007-12-05	2008-02-04			2008-12-30	AML	2008	188,800	174,644	174,644	Awaiting TFO Final Costs
736	Foothills Area Transmission Development 240/138kV	240/138kV Foothills substation with 240kV transmission lines north to Janet and Sarcee, and 138kV lines north into the City of Calgary.	Reliability Improvement					2012-12-31	AML ENMAX					Planning Stage
737	Edmonton to Calgary Transmission Reinforcement	TBD	Reliability Improvement					2013-06-01	AML					Planning Stage
784	708L Thermal Capacity Upgrade	Increase the operational thermal capacity of 708L line by replacing 266.8 ACSR segments with 477 ACSR.	Reliability Improvement					2009-12-31	AML			745,000	745,000	Preparing Direction
785	807L Thermal Capacity Increase	Increase the operational thermal capacity of 807L line.	Reliability Improvement					2009-12-31	AML			463,000	463,000	Preparing Direction
786	Edmonton Region 240kV Line Upgrades	Upgrade 240kV lines in Lake Wabamun area, Edmonton area, install one phase shifter in Brintnell or Dover area.	Reliability Improvement	2008-08-26	2009-02-24			2011-03-30	AML ATCO EPCOR	2008 2008 2008	76,259,479 38,676,448 968,060		76,259,479 26,680,491 968,060	TFO Preparing Facilities Application

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791	ATCO Construct 240kV Line from Black Fly to Salt Creek 977S	240kV Single circuit line from new Salt Creek 977S substation to Black Fly 934S	Reliability Improvement					2012-12-01	ATCO					Planning Stage
810	West Central Area Transmission Development	Upgrade West Central Area System Sub areas 31- Wetaskawin, 30-Drayton Valley, 29-Hinton/Edson, 34- Abraham Lake, 38-Caroline, 44-Seebe, 57-Airdrie	Reliability Improvement					2012-12-31	AML ATCO					Planning Stage
811	Central East Area Transmission Development	Sub areas 28-Cold Lake, 56-Vegreville, 13-Lloydminster, 32-Wainwright & 37-Provost	Reliability Improvement					2010-06-30	AML ATCO					Planning Stage
812	Hanna Area Transmission Development	System Upgrade. Sub areas 36-Alliance Battle River, 42-Hanna, 43-Sheerness	Reliability Improvement					2011-09-07	AML ATCO					Planning Stage
813	Red Deer Area Transmission Development	System upgrade Sub Areas 35-Red Deer, 39-Didsbury	Reliability Improvement					2012-06-30	AML					Planning Stage
817	ATCO Slave Lake- High Prairie 144 kV System Upgrade	144 kV transmission system upgrade in the High Prairie Slave Lake - Swan Hills area	Reliability Improvement					2012-12-31	ATCO	2008	51,000,000		51,000,000	Preparing Need Filing
833	Mid & Long Range Airdrie Area System Development	Mid & Long Range Airdrie Area System Development	Reliability Improvement					2011-10-31	AML					Planning Stage
850	South and West of Edmonton Area Upgrades	System Upgrades to Address System Constraints in the Area South and West of Edmonton	Reliability Improvement					2013-06-15	AML	2008	101,450,000		101,450,000	Planning Stage
878	Athabasca Area Telecommunication Upgrade	Athabasca Area Telecommunication Upgrade	Capacity Improvement					2011-02-01	AML					Planning Stage

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882	Peigan to Foothills Transmission Line	240kV lines from Peigan s/s to Foothills Substation	Reliability Improvement	2008-12-30				2012-07-02	AML	2008	301,994,000		301,994,000	Awaiting AUC Decision On Need
883	Milo Junction Switching Station	240kV Switching Station at Milo	Reliability Improvement	2008-12-30				2011-02-02	AML	2008	24,700,000		24,700,000	Awaiting AUC Decision On Need
884	Additions to Coleman Substation	New Phase Shifting Transformer and related switchgear at Coleman 799S Substation	Reliability Improvement	2008-12-30				2012-07-31	AML	2008	13,300,000		13,300,000	Awaiting AUC Decision On Need
886	West Brooks to Medicine Hat Transmission Line and New East Medicine Hat Substation	240kV double circuit line from West Brooks to new East Medicine Hat 244S substation	Reliability Improvement	2008-12-30				2012-06-18	AML	2008	182,675,000		182,675,000	Awaiting AUC Decision On Need
887	East Medicine Hat Substation to Whitla Transmission Line and New Whitla Substation	New 240kV Whitla 251S and 240kV lines from East Med Hat 244S	Reliability Improvement	2008-12-30				2012-10-24	AML	2008	183,744,000		183,744,000	Awaiting AUC Decision On Need
888	Medicine Hat 138kV Transmission Line Developments	New 138 kV lines and reconfiguration of 138kV lines in Medicine Hat Area	Reliability Improvement	2008-12-30				2012-11-05	AML	2008	90,700,000		90,700,000	Awaiting AUC Decision On Need
905	North Calgary System Reinforcement	Enmax to perform detailed studies with the AESO and determine the course of action. Help prepare NID and NID estimates	Reliability Improvement					2013-12-31	ENMAX					Planning Stage
906	Dover Substation Capacitor Bank	Add 100 MVar 240kV Capacitor Bank at Dover Substation	Capacity Improvement											Planning Stage
907	Dover Capacitor Bank	Add 100 Mvar 240 kV Capacitor Bank at Dover Substation	Capacity Improvement					2010-09-30	ATCO					Planning Stage

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908	Whitefish Lake Capacitor Bank	Add 100 Mvar 240 kV Capacitor Bank at Whitefish Substation	Capacity Improvement					2010-09-30	ATCO	2009	5,000,000		5,000,000	Planning Stage
909	Hinton / Edson Area Transmission Development	Hinton / Edson Area Transmission Development Modifications to 745L and Bickerdike 39S	Reliability Improvement	2009-06-09				2011-11-01	AML	2008	28,000,000		28,000,000	Awaiting AUC Decision On Need
910	Cold Creek 602S 138 kV, 27 MVAR Capacitor Bank	Cold Creek 602S 138 kV, 27 MVAR Cap Bank.	Reliability Improvement	2009-06-09				2010-11-01	AML	2008	2,000,000		2,000,000	Awaiting AUC Decision On Need
911	Cherhill Substation and 240 kV Interconnectoin	Cherhill Substation and 240 kV Interconnection to 913L	Reliability Improvement	2009-06-09				2010-12-15	AML	2008	20,000,000		20,000,000	Awaiting AUC Decision On Need
912	Drayton Valley Area 138 kV Transmission Development	Drayton Valley Area Transmission Development - rebuild 129L to 138kV, modifications to Moon Lake 131S, Entwistle 235S, Violet Grove 283S and salvage Drayton Valley 46S	Reliability Improvement	2009-06-09				2010-12-15	AML	2008	38,000,000		38,000,000	Awaiting AUC Decision On Need
916	Leismer Capacitor Bank	Addition of 2 x 30 MVAR Capacitor Banks at Leismer Substation	Reliability Improvement					2010-09-30	AML					Planning Stage
918	Fort McMurray Area Transmission Bulk System Reinforcement Stage 1	500kV line from Thickwood Hills to Brintnell, operated at 240kV	Reliability Improvement					2012-09-30	ATCO					Planning Stage
919	Fort McMurray Area Transmission Bulk System Reinforcement Stage 2	500kV line from Genesee to Brintnell	Reliability Improvement					2013-10-30	ATCO					Planning Stage

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920	Fort McMurray Area Transmission Bulk System Reinforcement Stage 3	500kV line from Heartland to Thickwood Hills	Reliability Improvement					2014-05-30	ATCO					Planning Stage
922	Enmax South Calgary Source	240 kV substation in south Calgary	Capacity Improvement					2014-12-31	ENMAX					Planning Stage
929	Foothills to Janet 240kV Transmission Line	Foothills to Janet 240kV Transmission Line, Foothills 240/138kV substation & Janet Upgrade	Capacity Improvement					2012-12-31	AML					Planning Stage
930	East Calgary 5S and Enmax SS-2 Upgrade	East Calgary 5S and Enmax SS-2 Upgrade	Capacity Improvement					2013-03-31	AML ENMAX					Planning Stage
931	Enmax South 69 kV Conversion Phase II	Enmax South 69 kV conversion to 138 kV Ph II	Reliability Improvement	2009-04-09				2010-12-01	ENMAX					Awaiting AUC Decision On Need
932	Enmax South 69 kV Conversion to 138 kV Phase III	Enmax South 69 kV Conversion to 138 kV Phase III	Reliability Improvement	2009-04-09				2011-12-01	ENMAX					Awaiting AUC Decision On Need
933	Prepare S37 to pre-order Equipment	Prepare S37 to pre-order Equipment	Reliability Improvement					2099-12-15	AML					Planning Stage
936	Fidler 312S 240/138 kV Interconnection	Fidler 312S 240/138 kV Substation and Interconnection	Capacity Improvement					2011-12-15	AML					Awaiting TFO PPS Estimate

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Notes:

1. Project Number: This is a number that is assigned by the AESO to each project that could potentially be Direct Assigned to a TFO by the AESO.
2. NID Filed: This is the date that the AESO submits to the AUC a Need Information Document (NID) for approval as per the requirement of Section 34(1) of the Act.
3. NID Approved: This is the date the NID is approved by the AUC.
4. P and L Filed: This is the date that the TFO's Permit and License application (sometimes referred to as the Facility Application) is registered with the AUC. For Projects with mutiple applications, this is the date the first application is registered.
5. P and L Approved: This is the date that the TFO's Permit and License application is approved by the AUC. For Projects with mutiple applications, this is the date the last application is approved.
6. Forecast or Actual ISD: This is the most recent information the TFO has provided to the AESO on the expected ISD. This information is typically provided to the AESO in the PPS (Proposal to Provide Service) or Project Monthly Reports provided by the TFO.
7. TFO: These are the Transmission Facility Owners (TFO) who have provided and are responsible for the estimates, schedule, construction and costs for the project. The TFO's eligible are designated by service territory as defined in ISO Rule 9.1. Eligible TFO's are as follows;
 - AML: Altalink L.P.
 - ATCO: ATCO Electric Ltd
 - EPCOR: EPCOR Transmission Inc.
 - ENMAX: ENMAX Power Corporation
 - TAU: TransAlta Utilities Corp
 - Leth: City of Lethbridge
 - RD: City of Red Deer
8. Year NID Valid: This indicates the year of validity of the NID estimate (i.e. an estimate may be completed in 2006 \$'s but should include escalation to put the estimate in the year the Project is expected to go in service)
9. NID Estimate: Is a +/- 30 % estimate that is provided by the TFO and accompanies the NID submitted to the AUC. The AESO uses the estimate to assist with project scope decisions. The TFO's are required to submit the estimate in the format as per the requirements of the ISO Rule 9.1 available on the AESO WEB site.
10. PPS Estimate: Is a +20/-10% estimate that accompanies the TFO's Proposal to Provide Service's (PPS) document. Prior to the AESO Direct Assigning a project to a TFO, the TFO must submit a PPS to the AESO for review. The AESO will review the document c/w the estimate to ensure that the scope of the services provided in the PPS are as per request. The TFO's are required to submit the PPS and estimate in the format as per the requirements of the ISO Rule 9.1 available on the AESO WEB site.
11. TFO Forecast Cost: This is the most recent cost estimate provided by the TFO. This could come from the TFO provided NID Estimate, PPS Estimate, Monthly Project Report (for projects over \$1 million), Project Variance Report or Final Cost Report.
12. Project Status: This provides a brief status of the project.