

No.	Region of Province	Map Code	Title	Description	Status	Study Schedule	Stakeholder Consultation	Comments
1	NW	A	Northwest Area Planning Study	Preparation of a 10-year transmission plan.	Shared detailed evaluation/recommendation with stakeholders	Need Assessment Revision - complete Alternative Screening Revision - complete Evaluation/Recommendation – Jan 06 Need Application - Feb 06	Broad stakeholder consultation	Need Application being developed.
2	NE	B	Fort McMurray Local Area Study (144 kV & 72 kV)	Transmission development on the 144 kV and 72 kV systems in order to accommodate Fort McMurray city and nearby area load growth.	Preparation of need applications.	Need Assessment – complete Alternative Screening – complete Evaluation/Recommendation - complete Need Applications – Feb 06 to Jul 06	Focused to input from the TFO/DFO; need is driven by load growth & relatively few options to consider.	Received interconnection proposals from ATCO Electric for capacity increases.
3	NE	B	North of Fort McMurray Oil Sands Project Interconnections (240kV)	Develop a conceptual plan for the 240 kV transmission system in order to accommodate major oil sands projects connecting to the 240 kV system north of Fort McMurray.	Preliminary regional system plan complete to 2015. Implementation pending customer interconnections.	Consultation with customers on the conceptual development. Need Application – Timing is customer driven	Focused stakeholder consultation with impacted customers on the conceptual plan.	The development in oil sands region north of Fort McMurray will be driven by individual customer connections.
4	NE	C	Northeast Intermediate Need (Existing Edmonton - Fort McMurray Corridor Enhancements)	Rapid on-site load and generation growth due to oil sands production requires transmission line capacity for both high import and export from Alberta's NE region. Analyze current system capabilities under various load scenarios and determine the system reinforcements required to meet future need.	Forecasts of on-site, plant and distribution loads completed; system modeling completed; need analysis completed.	Need Assessment - Completed Alternative Screening – Apr 06 Evaluation/Recommendation – Jun 06 Need Applications – Q3 06	Focused to input from TFO/DFO and information provided to broader industrial interests; enhancements to existing system.	The Need Assessment for project nos. 4, 13 & 14 will be co-ordinated with each other. More than one Need application will likely result. Alternative Screening co-ordinated with project no. 14.
5	NE	D	Long-Term Northeast Area Planning Study	Onsite load and generation growth for oil sands expansions over the long-term; Additional growth due to pipelines, industries and local infrastructure; long term potential for surplus generation; 20-yr outlook forecasts significant development of cogeneration.	Generation and load forecast to 2015 completed.	Stakeholder Information – Jan 06 Stakeholder Consultation on Key Assumptions – Feb 06 to Mar 06 Need Assessment – Q2 06 Alternative Screening – Q3 06 Evaluation/Recommendation – Q4 06 Need Application – Q4 06	Broad stakeholder consultation	Unique stakeholder information and education process anticipated in Jan 06 prior to release of the preliminary need assessment results. Generation fuel technologies will impact what is required.

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6	EC	T	Cold Lake Area Planning Study	Reinforce transmission to eliminate need for the existing RAS schemes in the area; plan to accommodate future generation growth in the area by CNRL at Primrose.	Need Application filed on October 14, 2005.	Need Assessment - complete Alternative Screening - complete Evaluation/Recommendation - complete Need Application – filed Oct 14/05 Need Application Withdrawn – Jan 18 2006	Completed	Due to changed customer requirements, the Need Application was withdrawn by the AESO on January 18, 2006.
7	EC	E	Vegreville, Lloydminster, Wainwright and Provost Area Planning Study	To address low voltage and overloading issues.	Preparing/finalizing Need Application.	Need Assessment – complete Alternative Screening – complete Evaluation/Recommendation – complete Need Application – Mar 06	Focused to input from the TFO/DFO	Finalizing cost information for need application.
8	EC	F	Hanna and Sheerness Area Planning Study	To identify any voltage or overloading issues.	Proceeding with need analysis in Q2 2006.	Need Assessment – Q2 06 Alternative Screening – Q3 06 Evaluation/Recommendation – Q4 06 Need Application – Q4 06	Focused to input from the TFO/DFO	
9	South and Calgary	G & Q	South Area Planning Study	To prepare a combined South Area transmission planning study incorporating the development plans in the SW and the SE.	Scope of study under development.	Stakeholder Information – Mar 06 Need Assessment – Q2 06 Alternative Screening – Q3 06 Evaluation/Recommendation – Q4 06/Q1 07 Need Application – Q1/Q2 07	Broad stakeholder consultation	
10	SE	H	Southeast Area Planning Study	The southeast area plan will identify the transmission development in the region that is required to support load growth, generation development and restoration of the Alberta-Saskatchewan inter-tie capacity. The Need Application will cover the components of the Area Plan that are required immediately.	Completed Need Assessment consultation and proceeding with consultation on the Alternative Screening document.	Need Assessment - complete Need Assessment Revision – Feb 06 Alternative Screening – Jan 06 Evaluation/Recommendation – Q2, 06 Need Application – Q3 06	Broad stakeholder consultation	
11	Edmonton	I	Edmonton-Lake Wabamun-Drayton Valley-	Potential equipment thermal loading issues (138 kV) have been identified in the Wabamun and	Need Assessment underway.	Need Assessment – Mar 06 Alternative Screening – Jun 06	Broad stakeholder consultation contemplated	

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			Wetaskiwin Regional Planning Study (138 kV)	Edmonton areas.		Evaluation/Recommendation – Aug 06 Need Application – Oct 06		
13	Edmonton	K	Edmonton Area Reactive Power Supply Reinforcement Study	Voltage stability concerns in the area; Wabamun generators reactive power output concerns.	Need Assessment completed. Proceeding with capacitor site selection.	Need Assessment – Jan 06 Alternative Screening – Mar 06 Evaluation/Recommendation – Apr 06 Need Applications – May 06	Focused to working with the TFO/DFO and information provided to broader stakeholder audience in Jan 06.	
14	Edmonton	L	Sundance-Wabamun 240 kV Reconnection Study	Previously identified problem of 240 kV line overload between Sundance and Wabamun. Retirements of Wabamun units has and will alter the balance of flows on the system. Future plans for Wabamun, given its advanced age, need to be identified.	Need Assessment completed. Planning of alternatives with Project No.11.	Need Assessment – Jan 06 Alternative Screening – Jun 06 Evaluation/Recommendation – Aug 06 Need Application – Oct 06	Focused to working with the TFO/DFO and information provided to broader stakeholder audience in Jan 06.	The Need Assessment for project nos. 4, 13 & 14 will be co-coordinated with each other. Alternative Screening will be co-coordinated with Project No. 4
15	Edmonton	M	Keephills-Ellerslie-Genesee (KEG) Remedial Action Scheme (RAS)	Remedial action scheme to cover category C3 events as much as practically possible for 1202L, 1203L and 1209L. Double line outages (C5) may also be covered as practically possible.	Initial work performed by Operations Planning to define the need. A consultant will be engaged to perform the detailed study to plan for facilities.	Complete schedule to be determined once a consultant has been engaged to perform the study.	Focused to working with the TFO/DFO and specific generators.	
16	Calgary	O	Calgary Area Study	Transmission development to accommodate the City of Calgary and nearby area load growth and increased bulk transfer demand. Difficulties taking maintenance outages of circuits in south Calgary.	<u>Regional:</u> Draft Need Assessment document completed for Regional portion of study. <u>Bulk:</u> Draft Need Assessment document completed for Bulk portion of study.	<u>Regional:</u> Need Assessment – Jan 06 Alternative Screening – Mar 06 Evaluation/Recommendation – Jun 06 Need Application – Aug 06 <u>Bulk:</u> Need Assessment – Jan 06 Alternative Screening – Feb 06 Evaluation/Recommendation – Apr 06 Need Application – Aug 06	Focused to working with the TFO/DFO, specific generators and local municipal authorities. Focused to working with the TFO/DFO, specific generators and local municipal authorities.	Once bulk system improvements are completed, will proceed to the regional system improvements.
18	Entire System	N/A	NERC C and D Contingencies	Conduct studies to become compliant with NERC standard I.A.S3.M3 and I.A.S4.M4. Conduct dynamic studies to observe how the system reacts to major disturbances in the C & D categories.	Need Assessments are being done on a region by region basis.	<u>Category C:</u> Need Assessment – Apr 06 Detailed Analysis – Q3 06 Need Application – Q4, 06 <u>Category D:</u> Need Assessment – Mar 06 Detailed Analysis – Q3 Need Application – Q4 06	Information will be provided to a broad stakeholder audience when it is available.	Scope and schedule will be determined following need assessment.

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				Develop mitigation plans as required.				
19	Inter-tie	S	Montana Alberta Tie Line Study	Merchant project; 240kV tie between Lethbridge AB and Great Falls, Montana.	Detailed studies being conducted by the developers' consultant; schedule dependent on the timing of those results.	Need application for interconnection facilities Feb 06, as per customer.	Stakeholder meeting driven by developer with support from the AESO held in November, 05	NEB Application filed by MATL in Dec 05. WECC Stage II path rating initiated by MATL in 2005 and currently underway.