



Transmission: Building Alberta's Future

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AESO Stakeholder Conference

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Calgary

Transmission Topics

- Recent EUB approvals and Transmission Update
- Edmonton to Calgary 500 kV transmission development update
- 20-year Transmission Outlook
- Regional transmission planning priorities
- Transmission facility projects ISO rules consultation process and feedback
- Update on stakeholder consultation on loss factors



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Transmission Mandate

Timely approval and construction of required transmission facilities to:

- **Continue to provide safe, reliable and economic open access transmission service**
- **Ensure that transmission is not a barrier to competition**
- **Facilitate an openly competitive wholesale electricity market.**

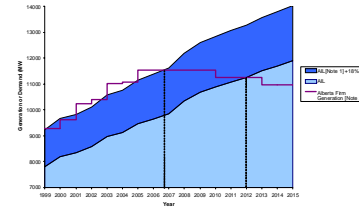


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Transmission Planning Challenges

Load Growth



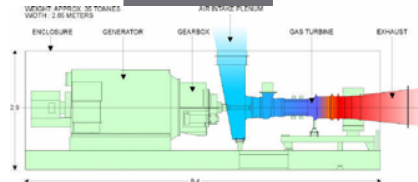
Insufficient Infrastructure investment

Transmission Planning

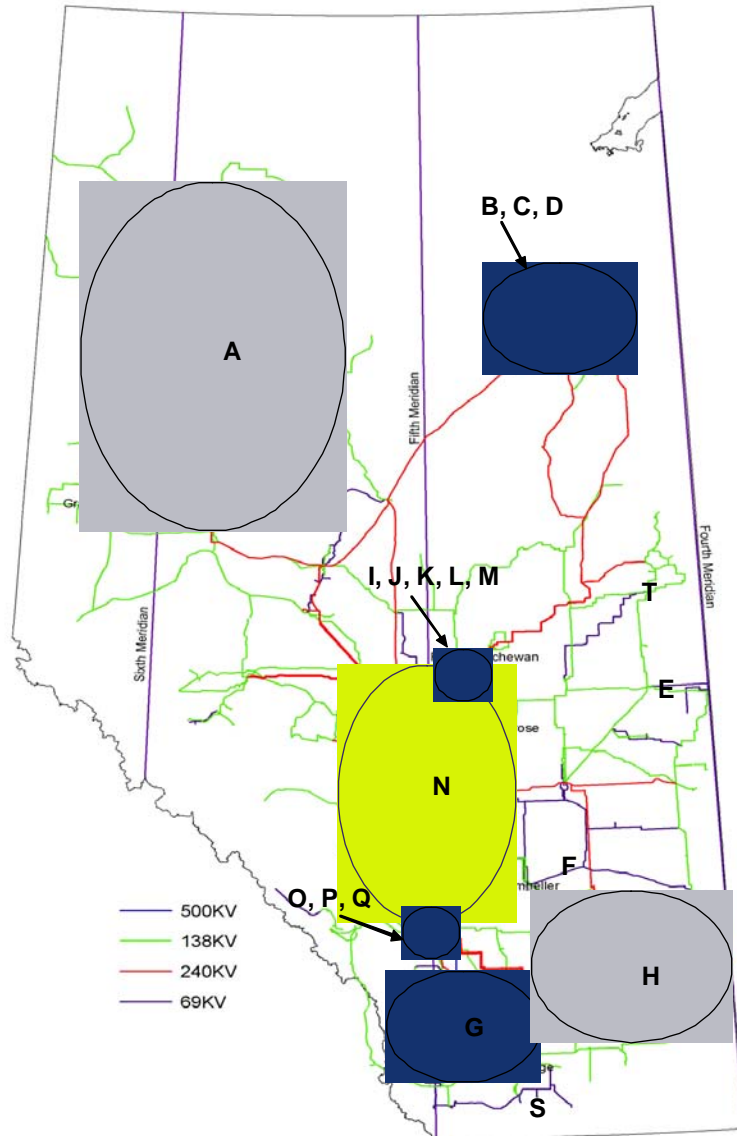
Ensure Reliability and Transmission Adequacy

Merchant Generation Development

Lead times!



Major Transmission Initiatives



Ongoing report on website

Edmonton to Calgary Reinforcement

SW Alberta

Downtown Edmonton

NW Alberta

SE Alberta

Fort McMurray

Calgary area



New Approaches

- Enhanced consultation process
 - The “right” process for the “right” project
 - Piloting extensive stakeholder approach in NW Alberta
 - Broader consultation at each stage
 - Greater transparency of process, input and feedback
- Enhanced visibility of planning priorities
 - Quarterly transmission planning reports on AESO website
 - Quarterly project reporting of approved projects
 - Additional tailored project reporting commitments on significant projects



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Summary

- Some major successes in recent EUB approvals
- Making good progress on key priorities
- New methods to consult more effectively with stakeholders – transparent, open, often and early
- Appreciate cooperation and patience from stakeholders in helping us test the new process
- Timely updates for Edmonton to Calgary project



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Overview – 500 kV Project

- Review of scope
- Current activities
- Project schedule and key milestones
- Cost estimate
- Challenges
- Stakeholder communication plan
- AltaLink – landowner consultation process
- Questions and contacts



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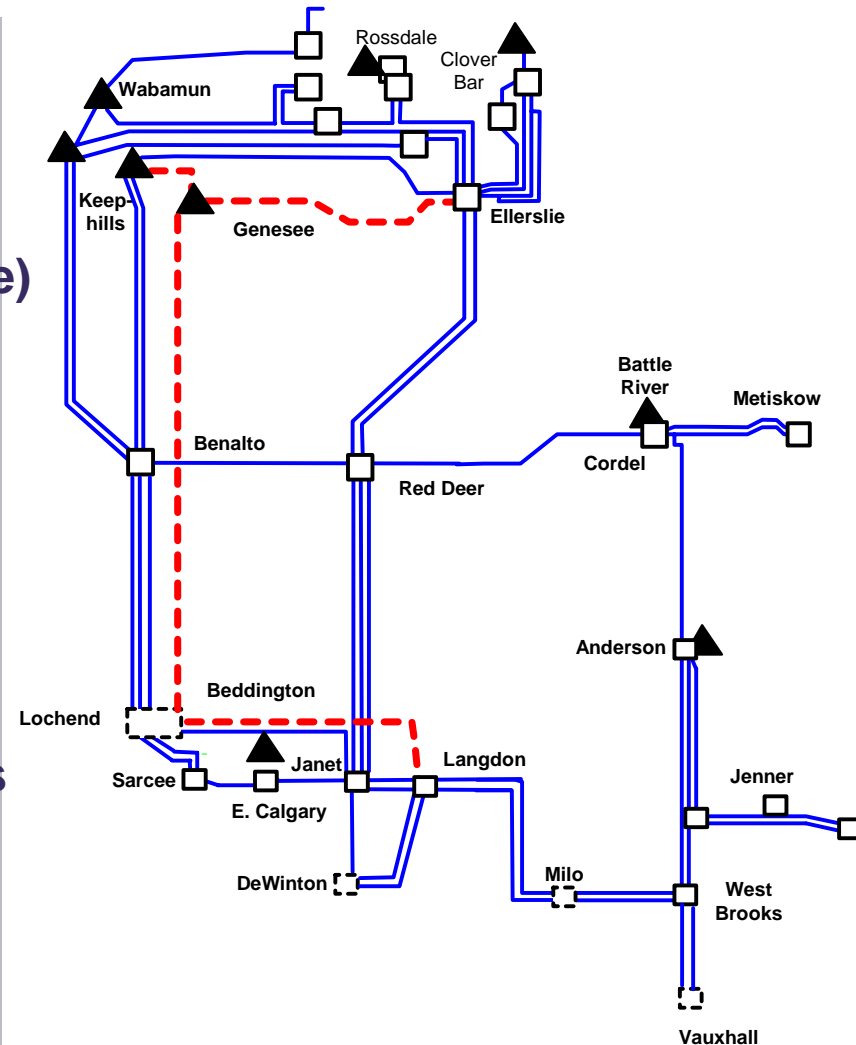
500 kV: Edmonton–Calgary Reinforcement

Key Elements

- S-KEG Lines Conversion to 500-kV (Keephills-Genesee-Ellerslie)
- New 500-kV line (Genesee to Langdon)

Benefits

- Stronger transmission infrastructure
- Remove generation barriers
- Major line loss savings



Current activities

- Direction provided to AltaLink – May 18, 2005
- Discussions with EPCOR - Transmission
- Discussions with EPCOR - Generation
- Engineering studies
- Functional specifications
- Engaged consultants
- Direct Assign Rules



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Key Milestones

- **April 2005** – EUB approves AESO need application
- **Summer 2005** – AESO launches stakeholder project update process
- **1st quarter 2006** – AltaLink and EPCOR file facilities application for South KEG lines
- **3rd quarter 2006** – AltaLink and EPCOR file facilities application for Genesee to Langdon 500 kV line
- **3rd quarter 2006** – Construction start on South KEG
- **4th quarter 2007** – South KEG lines proposed in-service date
- **3rd quarter 2009** – Genesee to Langdon 500 kV line proposed in-service date



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Project Cost Projections

- KEG Conversion
 - \$40 million, +/- 30% (2004 \$)
- Genesee – Langdon 500kV line
 - \$300 million, +/-30% (2004 \$)
- Refine estimates prior to Direct Assign
 - + 20/-10% estimates at time of full Direct Assign and P & L Application
 - + /-10% estimate within six months after P & L



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Project Challenges

- Project Schedule
 - Looking at advancement where possible to gain early benefits
- Siting of Genesee to Langdon line
 - Route selection and landowner engagement
- Outage co-ordination for S-KEG conversion
 - Coordination with Genesee turnarounds



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Stakeholder Communication Plan

- AESO committed to keep stakeholders informed
- Establishment of a stakeholder update forum
 - AESO, AltaLink, EPCOR, and AEUB key implementing parties
 - Open invitation to interested parties
 - Meetings every 2-months starting Sept. 2005
 - Identify key concerns interested parties have and try to effectively address these key concerns
- Regular web site updates and communications
- One-on-one discussions as requested



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Line Route Planning - AltaLink

Two Segments:

- Single-circuit 500kV Genesee to Lochend (N of NW Calgary)
- Double-circuit 500kV from Lochend to Langdon (E of SE Calgary)



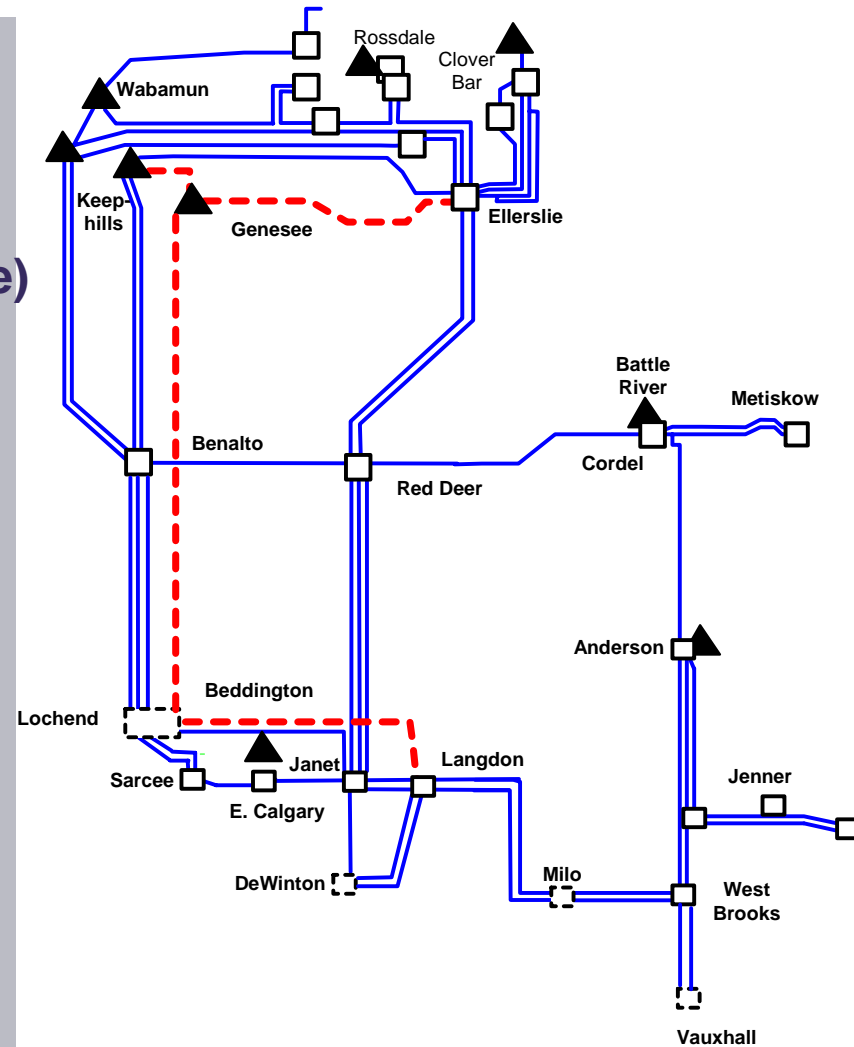
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500 kV: Edmonton–Calgary Reinforcement

Key Elements

- S-KEG Lines Conversion to 500-kV (Keephills-Genesee-Ellerslie)
- New 500-kV line (Genesee to Langdon)



Line Route Planning - AltaLink

- **Genesee to Lochend area (N of NW Calgary):**
 - Generally two routes are being evaluated
 - Both avoid towns, villages, areas of higher residential density, and recreational areas



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Line Route Planning - AltaLink

- **Lochend area to Langdon (East of S Calgary)**
 - Generally two routes, with connectors, are being evaluated
 - Running east, (north of Airdrie), and then south (to the east of Chestermere area)
 - Avoids country residential, and subdivisions



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Line Route Planning - AltaLink

- Will start contacting landowners and agencies within about a week
- First round of consultations will be finished around year end
- MLA's in area already aware of project
- Landowner and agency input will help AltaLink determine the best line route for the 500kV
- Input will be incorporated into AltaLink's EUB application



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Contacts and Questions

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