Joint CCQTA/COQA Meeting
CCQTA & Alberta Energy Linkages

Prepared by Alberta Energy

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Agenda

• Alberta Energy
• Internal and External Linkages
• CCQTA Linkages to Oil Sands Royalty
• CCQTA Linkages to Market Access
• Business Priorities (2015-18)
• Summary of CCQTA Benefits
• Questions
Disclaimer

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Any questions about this presentation should be directed to:

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Alberta Energy

• Develop policy for and manage development of Alberta’s non-renewable resources and renewable energy.
• Collect revenues from the development of Alberta’s energy and mineral resources.
• Advocate market access in key global markets.
• Grant exploration rights.
• Establish, administer and monitor the effectiveness of Alberta’s fiscal and royalty systems.
• Promote energy efficiency and conservation.
• Encourage investment in Alberta’s energy industry to create jobs and economic prosperity for Albertans.
Internal and External Linkages

- Oil Sands Royalty
- Market Access
- Market Analysis & Forecasting
- Policy
- Industry
- Public/Media
- AER
CCQTA Project Participation

1. Crude Oil Flammability
2. Heavy Oil Compatibility/Stability
3. TAN
4. Condensate Quality
5. Oil Sands Processability
6. Bitumen Dewatering and Volumetric Correction
7. TVP-RVP
8. Pipeline Corrosion
9. H₂S PVT
11. Bitumen & Diluent Blend Viscosity
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Alberta
Oil Sands Royalty

- Majority of Oil Sands owned by Alberta.
- Royalty collected on bitumen.
- 2.5 million bpd bitumen produced (2015).
- ~$5.1 billion in bitumen royalties for 2014-15 (56% of all royalty revenue – Alberta Energy 2014/15 annual report).
Bitumen Valuation Methodology (BVM)

- Over 50% of Alberta bitumen is not sold to third parties and considered non-arms length (NAL) transactions
- NAL bitumen is valued with a bitumen valuation methodology (BVM)
- Sole BVM crude quality parameter is bitumen density
- 1kg/m$^3$ ~ $11$ million/year in oil sands royalties (2015)
CCQTA Linkages to Oil Sands Royalty

Bitumen Dewatering

Bitumen Assay Program (BAP)

Royalty Volumes

OIL SANDS ROYALTY

TAN
Metrohm Test Method & Autoclave Corrosion Testing)

Volumetric Correction

Bitumen & Diluent Blend Viscosity

Condensate Quality (Quality Specifications)

Bitumen Valuation Methodology (BVM)

Allowed Costs
Bitumen Assay Program (BAP)

- Objective is to generate detailed assays of bitumen obtained from Alberta’s oil sands projects.
- Assays shared with operator for review and feedback.
  - Maxxam Analytics and CQI successful vendors in RFP process.
- Generated 47 oil sands project assays to date.
- Aggregate assays based on:
  1. oil sands region, and
  2. technology
  - Publically available on Alberta Energy website.

http://www.energy.alberta.ca/Initiatives/1439.asp
Key Oil Sands Royalty Focus Areas

• Oil Sands Royalty Review
  – Should alternate crude benchmarks be considered?
• BVM Regulation Review
  – Should other crude qualities be incorporated into BVM?
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Alberta
Market Access

- 1 $US/bbl increase in light-heavy oil price differential ~ decrease of $70 million revenues (Alberta 2016-19 Fiscal Plan)

- Upstream GHG emissions estimates for:
  - Enbridge Pipelines Inc. Line 3 Replacement Program
  - Kinder Morgan Trans Mountain Pipeline Expansion Project
  - TransCanada Energy East Pipeline Project

- Key market access issues include:
  - Safety & Handling
  - Environment
CCQTA Linkages to Market Access

Crude Oil Flammability
  TVP/RVP
  Pipeline Corrosion
  H₂S PVT

Heavy Oil Compatibility/Stability
  Properties of Thermally Processed Materials (Olefins)
  Oil Sands Bitumen Processability
  TAN (Autoclave Corrosion Testing)
  Condensate Quality (Mercury in Crude)

Safety & Handling

MARKET ACCESS

Refinery Operations Impacts
Key Market Access Focus Areas

• Safety & Handling
  – Lac-Mégantic disaster
  – Pipeline corrosivity
  – Oil spill response

• Refinery Operations Impacts
  – Partial upgrading
  – Refinery corrosion
  – Mercury in crude
Business Priorities (2015-18)

1. Albertans benefit from responsible energy and mineral development and access to global markets
   • Oil Sands Royalty Review
   • Market Access

2. Effective stewardship and regulation of Alberta’s energy and mineral resources
   • Oil Sands Regulation
   • GHG Policy & Implementation

3. Albertans benefit from safe and reliable energy-related infrastructure and innovative energy technologies
   • Value-Added Technologies
Summary of CCQTA Benefits

• Enhanced knowledge of oil sands resource

• Network of technical experts and access to information
  – Provides technical input to market access issues (e.g., GHG intensity studies)
  – Provides technical input to Alberta oil sands regulation reviews (e.g., BVM)
  – Provides technical input to environmental performance standards (e.g. *Alberta Climate Leadership Plan*)