Introduction to TransCanada Keystone Pipeline

By Aaron Ha
Crude Oil Quality Association

October 28, 2010
Forward-Looking Information

This presentation may contain certain information that is forward looking and is subject to important risks and uncertainties. The words "anticipate", "expect", "believe", "may", "should", "estimate", "project", "outlook", "forecast" or other similar words are used to identify such forward-looking information. Forward-looking statements in this document are intended to provide TransCanada shareholders and potential investors with information regarding TransCanada and its subsidiaries, including management’s assessment of TransCanada’s and its subsidiaries’ future financial and operations plans and outlook. Forward-looking statements in this document may include, among others, statements regarding the anticipated business prospects and financial performance of TransCanada and its subsidiaries, expectations or projections about the future, and strategies and goals for growth and expansion. All forward-looking statements reflect TransCanada’s beliefs and assumptions based on information available at the time the statements were made. Actual results or events may differ from those predicted in these forward-looking statements. Factors that could cause actual results or events to differ materially from current expectations include, among other things, the ability of TransCanada to successfully implement its strategic initiatives and whether such strategic initiatives will yield the expected benefits, the operating performance of the Company’s pipeline and energy assets, the availability and price of energy commodities, regulatory processes and decisions, changes in environmental and other laws and regulations, competitive factors in the pipeline and energy industry sectors, construction and completion of capital projects, labour, equipment and material costs, access to capital markets, interest and currency exchange rates, technological developments and the current economic conditions in North America. By its nature, forward-looking information is subject to various risks and uncertainties, which could cause TransCanada’s actual results and experience to differ materially from the anticipated results or expectations expressed. Additional information on these and other factors is available in the reports filed by TransCanada with Canadian securities regulators and with the U.S. Securities and Exchange Commission (SEC). Readers are cautioned to not place undue reliance on this forward-looking information, which is given as of the date it is expressed in this presentation or otherwise, and to not use future-oriented information or financial outlooks for anything other than their intended purpose. TransCanada undertakes no obligation to update publicly or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.
Topics

1. Desired Outcome
2. TransCanada Organization
3. Keystone Project Update
5. Crude Oil Quality Practices
Desired Outcome

• To provide an overview of TransCanada to COQA members

• To share Keystone business and pipeline operations

• To introduce Keystone’s crude oil quality practices
TransCanada Organization
Corporate Facts

- Total Assets: 43.8 Billion
- Shares Outstanding: 634 million
- Operating Income: 2.8 Billion
- Net Income: 1.4 Billion
- Employees: > 4500
Our Competitive Position

North America’s Largest Natural Gas Pipeline Network
- 37,000 miles (wholly-owned)
- 5,500 miles (partially-owned)
- Average volume of 14 Bcf/d

North America’s 2nd Largest Natural Gas Storage Operator
- 380 Bcf of capacity

Canada’s Largest Private Sector Power Generator
- 20 power plants, 11,700 MW

Premier North American Oil Pipeline Under Construction
- 1.1 million Bbl/d
$22 Billion Capital Program

- Invested approximately $12 billion in projects that start contributing to earnings and cash flow in near term
- Approximately $1 billion in additional EBITDA expected in 2011
- Projects contributing include: Keystone, Groundbirch, Bison, Guadalajara, Halton Hills, Kibby, Coolidge and Bruce re-start
Keystone Oil Pipeline

- 1,090,000 b/d in capacity; 910,000 b/d in contracts (83% of total capacity)
- Approx. U.S.$12 billion
- Phase I to Patoka in service – Q2 2010
- Operations to Cushing expected to start in Q1 2011
- Operations to Gulf Coast expected to start in Q1 2013
- Montana crude transportation being offered for 2013 in service
- Cushing crude transportation being offered for 2013 in service
Keystone will connect Canadian supply with US demand

- Links growing supply in Western Canada with the largest refining markets in North America
- Approximately 1.1 million Bbl/d of capacity; expandable to approximately 1.5 million Bbl/d of capacity
- 910,000 Bbl/d committed for an average term of 18 years
Economic Benefits of Keystone XL – U.S.

- ~118,000 - person years of employment during construction
- $600 Million - Government revenue during construction
- $5.2 Billion - cumulative property taxes paid during operational life of the pipeline
- Stable and secure source of crude oil
- Significant and ongoing stimulus to U.S. business activity

Summary

- The Keystone system is a key link between Canadian Supply and US Demand
- Flat US demand until 2030
- Steep declines in conventional US production
- Declines in traditional US supply sources
- Growing and secure oil supply in Western Canada exists, despite economic slow down in Alberta oil sands
- US will remain a key market for Canadian crude oil and Canada will remain a key source of supply for US demand for the foreseeable future
- The Keystone and Keystone XL projects will bring significant economic benefits to the US
- The Keystone project is on schedule to meet US Demand
Keystone Project Update
Keystone Oil Pipeline

- 1,090,000 Bbl/d
- Expandable to 1,500,000 Bbl/d
  - 910,000 Bbl/d committed for an average term of 18 years (83% of total capacity)
- Commercial operations to Wood River and Patoka to commence in July
- Commercial operations to Cushing expected to commence in Q1 2011
- Commercial operations to Gulf Coast Expansion expected to commence Q1 2013
Keystone Construction Update

- **Cushing Extension:**
  - Steele City, NE to Cushing, OK
  - 100% of all pipeline construction contracts and material supply procured
  - All regulatory permits in place
  - Construction has begun
  - In-Service Q1 2011

- **Keystone Gulf Coast Expansion:**
  - Hardisty, AB to Port Arthur, TX
  - Canadian regulatory approval received Q1 2010
  - U.S. draft EIS received April 2010
  - Over 97% land acquisition complete in Canada
  - 57% land acquisition complete in U.S.
  - 100% line pipe procured
  - 90% pump station materials procured
  - Shovel-ready project
Keystone Operations
Keystone Pipeline System Overview

- **Keystone system extends 2,980 km (1,850 miles) from Hardisty, AB to Patoka, IL**

- **Initial Capacity 435,000 b/d**
  - 39 pump stations, 101 pump units, 482,000 installed horsepower
  - 2,114 km (1,313 miles) of 30 inch pipe
  - 864 km (537 miles) of 34 inch pipe

- **Expanded Capacity 591,000 b/d**
  - 48 pump stations, 166 pump units, 791,000 installed horsepower

- **Receipt Interconnections at Hardisty**
  - Three (Enbridge, Husky and Gibsons)
  - Custody Transfer point into the Keystone system

- **Delivery Points**
  - Two (Hartford, IL – ConocoPhillips, Patoka, IL – Plains)
  - Custody transfer points out of the Keystone system

- **Commercial operations commenced July 2010**
Keystone Pipeline System – Cushing Extension

- Keystone system extended 500 km (298 miles) from Steele City, NB to Cushing, OK
- **Initial Capacity 591,000 b/d**
  - 36 inch diameter pipe
  - 3 pump stations, 9 pump units, 58,500 installed horsepower
  - Matches Keystone capacity
- **Commercial operations scheduled to commence Q1 of 2011**
Hardisty Area Crude Oil Hub
Keystone Pump Station - Typical
Crude Oil Quality Practices
Keystone Transit Times

- Transit time is one of the value propositions for Keystone shippers
  - Absence of breakout tankage and throughput result in short transit times to Hartford and Patoka
  - Short transit times result in less inventory and lower carrying cost for shippers
- Linefill Hardisty to Canada/US Border
  - 652,900 m³ (4.1 million barrels)
- Linefill US Border to Patoka
  - 762,160 m³ (4.8 million barrels)
Keystone Transit Time
Hardisty to Wood River/Patoka

Average Flow Rate [kbpd]

Transit Time [days]

H to P curve fit

Hardisty to Patoka
• **Petroleum quality is another of the value propositions for Keystone shippers**
  - The value of crude oil batches delivered to customers is maximized when quality deterioration is minimized

• **Keystone manages quality with the following pipeline operations**
  - Minimizing start/stop operations
  - Maximizing batch size
  - Arranging “quality” trains when possible
  - No requirement for breakout tankage
  - Operating the pipeline in turbulent flow when possible

• **Deliveries on the Keystone system are completed on a midpoint volume cut**
  - Equal volume of contamination between batches
Concluding Comments

• To date, delivered quality has been very favorable with Keystone’s value proposition

• Interface and crude quality has been in line with modeled calculations
Discussion and Questions