7th Annual Maine Natural Gas Conference



Pipeline Expansion

Moderator: Randall Rich, Pierce Atwood LLP

Panelists:

- Cynthia Armstrong, Portland Natural Gas Transmission System
- Rob Furino, Unitil
- Erin Petkovich, Enbridge
- Mosby Perrow, IV, Tennessee Gas Pipeline





2019 Maine Natural Gas Conference Portland Natural Gas Transmission Update

October 1, 2019

10001



Portland Natural Gas Transmission System

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 presentation are intended to provide information regarding TransCanada and its subsidiaries, including management's assessment of PNGTS' 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 PNGTS, expectations or projections about the future, and strategies and goals for growth and expansion. All forwardlooking 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 others, the ability of PNGTS to successfully implement its strategic initiatives and whether such strategic initiatives will yield the expected benefits, the operating performance of PNGTS, the availability and price of energy commodities, capacity payments, regulatory processes and decisions, changes in environmental and other laws and regulations, competitive factors in the pipeline and energy sectors, construction and completion of capital projects, and the current economic conditions in North America. By its nature, forward looking information is subject to various risks and uncertainties, which could cause actual results and experience to differ materially from the anticipated results or expectations expressed.. PNGTS 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.

Portland Natural Gas Transmission System



> 1999 (In Service): > Delivered Western Canadian Sedimentary Basin ("WCSB") gas from conventional wells, to New England markets at Dracut

>Now:

Delivers WCSB (conventional and shales) and Marcellus gas to New England markets at Dracut and Maine/Atlantic Canada markets at Westbrook

Increasing Demand for PNGTS Capacity

Average Receipts into PNGTS at Pittsburg



PNGTS Projects

- <u>C2C (2017)</u>
 - 82k Dth/day
- <u>Portland XPress</u> (2018-2020)
 - 183k Dth/day
- Westbrook XPress I <u>& II (2019-2021)</u>
 - 108k Dth/day
- Westbrook XPress
 <u>III (2022)</u>
 - 18k Dth/day





For More Information, Contact:

Cynthia L. Armstrong

Marketing Director Portland Natural Gas Transmission System One Harbour Place, Suite 375 Portsmouth, NH 03801 <u>www.pngts.com</u> Office: (603) 559-5527 Fax: (603) 427-2807 Cell: (603) 498-0782 Email: <u>cynthia_armstrong@transcanada.com</u> AOL IM: cynthiarmstrong LinkedIn: www.linkedin.com/in/cynthiarmstrong/





PIPELINE ROUNDTABLE Northern Utilities

Rob Furino October 3, 2019

ABOUT UNITIL

Company Overview

- Natural gas and electric distribution utility with operations in three states serving ~188,000 customers; ~33,000 gas customers in ME
- **Growing** operations and customer base
 - Robust natural gas system expansion
 - ~ 500 full-time employees with dual storm roles
- We provide energy for life, safely and reliably delivering natural gas and electricity in New England



Near Term Focus

Operating an Efficient Natural Gas LDC

- Excellence in safety, reliability of distribution system
- Serving customer demand adding customers (1200/year)
 - ME still heavy Oil (61%), light Natural Gas (8%)
 - Savings of \$1100/year, 25% emissions reductions (no SOx)
- New peak day Jan 21, 2019 (146,749 Dth at 70 EDD)
- Seek gas supply resources to meet current / near term demand
 - Commitments to 3 pipeline capacity projects under development
 - Exploring LNG and alternative projects

Longer Term Focus Sustainability Efforts Underway

- First Unitil ESG Report issued in 2019
- Exploring RNG viability / Green Tariff
 - Interconnection standards focus, Expand market for RNG projects
- Exploring non-pipeline solutions
 - Security of supply, Cost effectiveness
- Exploring certifications for best practices in production of conventional gas, such as TrustWell
 - Can paying premiums for best practices incent emissions reductions?

Delivering Energy to the Northeast



Erin Petkovich Maine Natural Gas Conference: Focus on the Future October 4, 2019







Maritimes & Northeast Maine Footprint



- 280 miles of pipe & 7 compressor stations
- Serving Maine Natural Gas, Bangor Gas, Summit Natural Gas, Northern Utilities, Calpine Westbrook Energy Center, Casco Bay Energy, XNG, Woodland Pulp

Incremental deliveries to New England and Atlantic Canada Atlantic Bridge



Project Scope:

 ~135 MMcf/d expansion of the Algonquin and Maritimes Pipelines

ÉNBRIDGE

Customers:

 Various local distribution and industrial companies in New England and Atlantic Canada

Project Status:

- Received FERC certificate Jan 2017
- Placed 40 MMcf/d into service Nov 2017
- Place full project volumes into service Oct 2019
- Place full project path into service 2020

Connecting abundant gas supply to northern New England and Atlantic Canada markets

Energy Growth Drives Need for Incremental Capacity

Infrastructure for Peak Demand





16

Enbridge Enabling Carbon Reduction

22.000

Developing all-of-theabove energy solutions

- Natural gas partners with renewables and supports their 18,000 growth
- Considering renewable technology as part of our northeast portfolio:
 - Renewable Natural Gas
 - Combined Heat and Power
 - Energy Storage
 - Solar & Wind Generation



Winter Peak Demand (MWs)

Hourly Demand



Peak power demand

6 -7 PM



MAINE NATURAL GAS CONFERENCE OCTOBER 3, 2019

MOSBY G. PERROW

VICE PRESIDENT AND DEPUTY GENERAL COUNSEL



KINDER MORGAN: LEADER IN NORTH AMERICAN ENERGY INFRASTRUCTURE

Largest natural gas transmission network

- ~70,000 miles of natural gas pipelines
- 657 Bcfd of working storage capacity
- Connected to every important U.S. natural gas resource play and key demand centers
- Move ~40% of natural gas consumed in the U.S.

Largest independent transporter of refined products

- Transport ~1.7 mmbbld of refined products
- ~6,900 miles of refined products pipelines
- ~5,800 miles of other liquids pipelines (crude and natural gas liquids)

Largest independent terminal operator

- I 57 terminals
- I6 Jones Act vessels

Largest transporter of CO₂

Transport ~1.2 Bcfd of CO₂





201

200 Line

TGP SYSTEM MAP

- ~II,750 miles of pipe
- > ~700 active supply/delivery meters
- ~112 Bcf storage capacity
- > ~27,740 MW direct connected power
- ~550 MDth/d deliveries to LNG facilities
- > ~942 MDth/d exports to Mexico
- > ~650 MDth/d exports to Canada via Niagara

100 Line

Colden 245 32 Hebron-Ellisburg-Harriso Riverval **300 Line** Jahwah 19 200 Line 204 **Bear Creek** 500 Line 800 Line **Tennessee Gas Pipeline** Company, L.L.C.

a Kinder Morgan company



BUSINESS DEVELOPMENT NORTH EAST MACRO DRIVERS

- Appalachia growth slowing, competition from Permian and Haynesville
 - TGP supply connectivity remains strong and attracts power gen
- Local supply will serve local demand in pipe constrained areas like New England
 - TGP meeting LDC customer growth needs with discrete, executable projects
- Power Market
 - Pennsylvania & Ohio

LINE 261 UPGRADE - REGULATORY / PERMITTING PHASE

Details

Commercial Driver:

 Residential/commercial gas demand growth

Capacity: 101,400 Dth/d

Customer:

- Columbia Gas of Mass (96,400 Dth/d)
- Holyoke (5,000 Dth/d)

Phased In-service: 2019-2020 timeframe

Project Scope:

- HP Replacement at Station 261
- 2 miles of looping Springfield Lateral

Project Status:

- FERC 7C Application filed October 2018
- Federal Permit applications filed -October 2018



NEW ENGLAND AND NEW YORK / NEW JERSEY HOW ARE WE RESPONDING?

Project Planning

- Extended timelines from filing to inservice
- Thorough risk identification & planning
- Stakeholder engagement and outreach
- Safety and security
- Relationship with Customers
 - Stronger partnerships
 - Earlier engagement
 - Setting expectations
 - Combined outreach and communication

Contracting

- Recognition of risks
- Risk allocation
- Account for potential schedule impacts







PIPELINES IN THE COURTS

- <u>PennEast Pipeline v A permanent easement for 1.74 acres</u> and <u>Columbia Gas</u> <u>Transmission v. 0.12 Acres of Land</u>. Sovereign immunity challenge to pipelines exercising eminent domain.
- <u>City of Oberlin v. FERC (NEXUS)</u>. Precedent agreements for export supporting public convenience and necessity.
- Atlantic Coast Pipeline v. FERC, US Forest v. Cowpasture Preservation Association., and Defenders of Wildlife v. US Fish and Wildlife Services. Myriad challenges to ACP.
- <u>Wild Virginia v. US Department of Interior (Mountain Valley)</u>. Challenge to Fish Endangered Species Act authorization.
- Lori Birckhead v. FERC (Tennessee Gas Pipeline). Dicta on FERC review of indirect emissions.
- <u>NYSDEC v FERC (Northern Access</u>). New York challenge to FERC order finding state water quality review waived.

CONTRIBUTION TO METHANE EMMISSIONS REDUCTION

- 25+ years of commitment to reducing methane emissions helped to achieve a 16% decline in U.S. methane emissions since 1990 while U.S. natural gas production has increased more than 50%
- Contributed to a 12% reduction in U.S. greenhouse gas emissions over the last 10 years, including a 28% reduction in emissions from electricity generation
- As a founding member of ONE Future, we have committed to a methane emission intensity target of 0.31% across our transmission and storage operations by 2025
- Rated by EDF in top quartile of midstream sector for methane disclosures and establishing quantitative methane targets
- Released first Environmental, Social and Governance Report (ESG) in October 2018 with plans to file 2 degree C scenario analysis in 2019 ESG report
- Multiple on-going energy management programs to reduce our electricity usage and Scope 2 GHG emissions



Source: EPA Inventory of U.S. Greenhouse Gas Emissions & Sinks: 1990-2017 (published 04/11/2019). Emissions reductions statistics refer to changes through 2017, the latest available.

Kinder Morgan's EPA Natural Gas STAR Summary Report (September 2018)