Northwest Pipeline – LNG/Infrastructure Update

Xan Kotter, Business Development Project Manager
March 13, 2014
< Northwest Pipeline
- Interconnect with seven interstate pipelines in the Rockies
- 3.7 MMDth/d peak design capacity
- 14 MMDth of storage capacity (716 MDth/d deliverability)
- Bi-directional system with access to abundant domestic and Canadian gas supplies
- History of expanding the system to meet customers growth needs
LNG Opportunities in the Pacific Northwest
Northwest Pipeline Business Development Update

> Major Expansion to Serve PNW Market Growth

> Major Expansion to Serve West Coast LNG
  - Pacific Connector Gas Pipeline to serve Jordan Cove (2018);
  - Washington Expansion Project (2018);
  - Plymouth LNG truck loading service (2014)
Washington Expansion Project (WEP)

- Incremental expansion from Sumas to markets in the Pacific Northwest I-5 corridor as far south as Molalla, OR
  - Oregon LNG is the anchor customer requesting 750 MDth/d of incremental transportation to serve their proposed LNG export terminal
  - An earlier phase of WEP is not dependent on OLNG
    - Project can be scaled to meet smaller regional needs
- The WEP is an expansion of the Northwest Pipeline system that will be operated in accordance with its FERC Gas Tariff
Oregon LNG

Project Sponsor: LNG Development Company
Suppliers: Unknown – Discussions with Canadian suppliers
Market: Unknown – Discussions with Asian buyers

Project Description

Liquefaction
Located on Skipanon peninsula in Warrenton, Oregon
New Berth – Columbia River
Up to 2 – 4.5 MTPA trains (~625 MDth/d each)
2 – 160,000 m3 storage tanks (3.4 Bcf)

Pipeline (Oregon Pipeline)
86-mile, 36-inch pipeline from NWP Woodland to Warrenton

Project Status:
> Filed FERC application June 2013 for the WEP
> 2018 estimated in-service date
Project Sponsor: Veresen
Suppliers: Unknown – Discussions with Rockies/Canadian suppliers
Market: 6 parties representing various free trade and non free trade countries have officially expressed interest

Project Description:
Liquefaction
Located on 200-acre site on the North Spit of Coos Bay
New berth/slip
Liquefaction Capacity of 6 million Metric Tonnes per Annum
2 – 160,000 m3 storage tanks (3.4 Bcf)
New gas processing and power plant facilities on site

Pipeline (Pacific Connector Gas Pipeline)
232-mile, 36-inch pipeline from Malin to Coos Bay site
Compressor station located at Malin

Project Status:
> Export terminal and PCGP filed FERC applications in June 2013
> Received DOE export license for FTA countries – license application for non-FTA countries currently 1st in DOE queue
> Entered into 6 non-binding expressions of interest with customer representing in excess of 237% of capacity
> 2018 estimated in-service
Plymouth LNG Delivery Services
Existing Plymouth LNG Operations

Existing Liquefaction

Existing Vaporization

Northwest Mainline

Existing

Plymouth Yard

Existing
Market Driven Opportunity

> The option to liquefy gas year-round to serve the VNG market
  – Access to I-84, I-82, I-90, and I-5

> Introduction of a non-jurisdictional truck loading service for a new third party that is constructing a stand-alone LNG tank and truck loading facility

> Introduction of a non-jurisdictional truck loading service for existing Plymouth capacity holders
New Plymouth LNG Delivery Services Overview

Plymouth Yard (Jurisdictional Facility)

- Existing Vaporization
- Existing Liquefaction
- Existing Storage
- Existing Storage
- LS-3F LNG Directly From Tanks
- LD-4I LNG Directly From Liquefiers

Non-Jurisdictional Facility
Plymouth LNG Delivery Service Project Timeline

> Key dates

✔ Apr 2013  Made 7(c) filing seeking FERC authorization to construct and operate the Blue Water LNG meter station and approval of the pro forma rate schedules LS-3F and LD-4I (Docket CP13-160)

✔ Oct 2013  Received FERC certificate order authorizing the construction and operation of the Blue Water LNG meter station and approval of the pro forma rate schedules, including initial rates

✔ Oct 2013  Obtained notice to proceed construction from FERC

✔ Nov 2013  Began Blue Water LNG meter station construction

☐ Apr 2014  Place in-service the Blue Water LNG meter station
Questions or Comments
Xan Kotter, Business Development Project Manager
801-584-6496
Xan.G.Kotter@williams.com