



# LNG Exports in the Pacific Northwest – Jordan Cove Update

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# Forward-looking information advisory

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The risks and uncertainties that may affect the operations, performance, development and results of our businesses include, but are not limited to, the following factors: our ability to successfully implement our strategic initiatives and achieve expected benefits; levels of oil and gas exploration and development activity; the status, credit risk and continued existence of contracted customers; the availability and price of capital; the availability and price of energy commodities; the availability of construction services and materials; fluctuations in foreign exchange and interest rates; our ability to successfully obtain regulatory approvals; changes in tax, regulatory, environmental, and other laws and regulations; competitive factors in the pipeline, NGL and power industries; operational breakdowns, failures, or other disruptions; and the prevailing economic conditions in North America. Additional information on these and other risks, uncertainties and factors that could affect our operations or financial results are included in our filings with the securities commissions or similar authorities in each of the provinces of Canada, as may be updated from time to time.

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# Jordan Cove LNG

## Jordan Cove LNG (JCLNG)

- 7.8 mtpa greenfield facility
- 264 acre site
- 7-mile transit to site – Port of Coos Bay

## Pacific Connector Gas Pipeline (PCGP)

- Receipt interconnects with GTN and Ruby pipelines at Malin, Oregon
- 229 mile; 36" diameter
- ~1.2 bcf/d design capacity



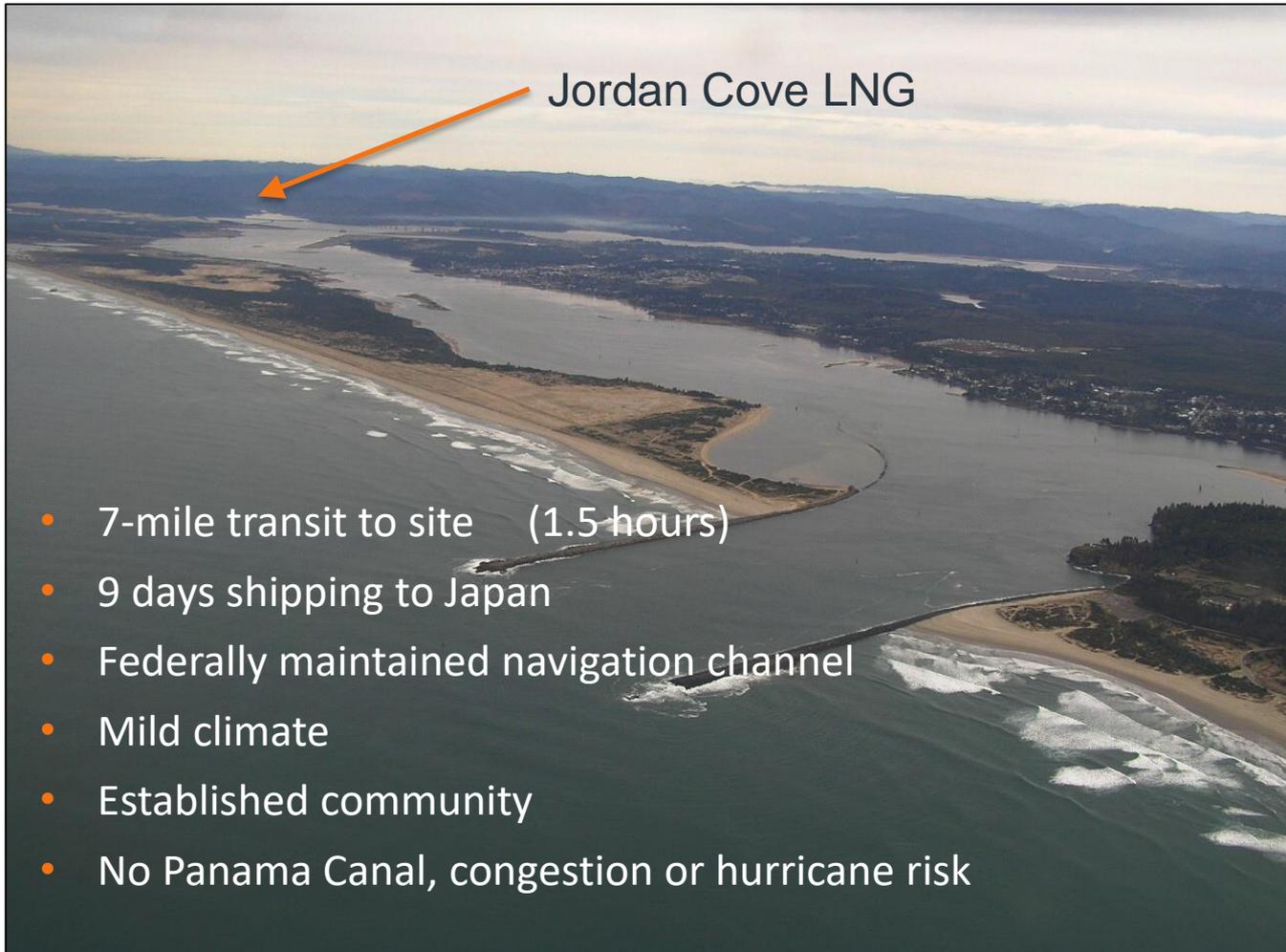
# Direct access to two large gas basins

- Access to the U.S. Rockies (via Ruby Pipeline) and the Western Canada Sedimentary Basin (via Gas Transmission Northwest), each with multiple major producing areas



# International Port of Coos Bay

Port was once the largest timber port in the world with 300-400 ship visits a year; now down to 30-40 visits per year; community in need of economic development..



# Market support

- Jordan Cove has reached commercial agreement with two major Japanese LNG companies and is progressing commercial discussions with others
  - JERA – liquefaction capacity of 1.5+ mtpa
    - Exclusive fuel procurement company for Japan’s largest electric utilities
    - Single largest LNG buyer in the world; they make the market
  - ITOCHU – liquefaction capacity of 1.5 mtpa
    - Largest Japanese trading company in 2016
    - Long history in the global LNG trade
  - In advanced commercial discussions with two other Japanese buyers
    - Expected to take 2+ mtpa of liquefaction capacity
    - Also talking to Chinese and Korean buyers

# Regulatory status

- Project received a clean final environmental impact study (FEIS) in September 2015
- FERC denied certificate application in March 2016 due to lack of market support
- Submitted request for rehearing (appeal) with two agreements for ~50% of plant capacity and transportation precedent services agreements for 77% of pipeline capacity
- After eight months, project's request for rehearing denied December 2016 – FERC unwilling to consider supplemental market information
- Submitted application for pre-filing to FERC January 23, 2017
  - Accepted into pre-filing February 10, 2017
  - Pre-filing process is a minimum of six months; 18+ months to FERC certificate

# Jordan Cove's strategic rationale

When compared to other projects globally, we believe Jordan Cove LNG is cost competitive with all new global LNG supply alternatives into NE Asia.

## Strengths:

- Competitive with Gulf of Mexico brownfield LNG projects' cost delivered into Asia
  - Right sized for current market conditions at 7 mtpa
- 9 days shipping from Coos Bay, Oregon to Tokyo
  - 22 days shipping from the Gulf of Mexico to Tokyo
  - No Panama Canal or hurricane risks
- Long-term gas supply from two large gas regions – US Rockies and Western Canada
  - Project served by two under-utilized large diameter pipeline systems
  - Limited local competition for natural gas
- Strong state and community support

## Challenges:

- Permitting in the Pacific Northwest environment
  - No precedent for project of this scope and complexity – challenges State and Federal agencies
  - Mitigation of environmental impacts – Tribal cultural sites, endangered species

# Why will this time be different?

- The market is ready – broad consensus on supply shortfall in 2022/23
- From a FERC perspective, the key will be to have:
  - 75%+ of binding transportation service agreements on the pipeline
  - 65% to 75% of private landowner voluntary right of way (ROW) agreements
    - Since the FERC denial, PCGP has secured 110 voluntary ROW agreements from a total of 259 private fee owners or > 40%; progress is being made daily
- Stakeholder management is critical
  - We made a number of project adjustments to address stakeholder concerns
    - Moved work force housing from North Bend, OR to the site
    - Worked with landowners to avoid or mitigate impacts from the pipeline
  - We are executing a strong and coherent stakeholder management plan
- FERC will have four (of five) new Commissioners before we are in front of the Commission in Q3/4 2018
- Administration is seeking to coordinate among federal agencies in permitting large infrastructure projects; project has a designated “project manager” (Fast 41) to facilitate inter-agency coordination



**Thank you**