

Jordan Cove – Pacific Connector

Supplying Essential Energy for SW Oregon's Economy





Artist's rendering of the proposed Jordan Cove LNG terminal

In today's competitive world, energy fuels a region's economic well-being. Our quality of life, from family-wage jobs to heating homes, depends on a reliable supply of reasonably priced energy. Natural gas is a cornerstone energy source to support our economy and growing population.

In development for four years, the Jordan Cove – Pacific Connector Project will bring a new, badly needed source of natural gas to southwest Oregon and the surrounding region. The Project consists of the Jordan Cove Energy LNG (liquefied natural gas) terminal in Coos Bay and the Pacific Connector Gas Pipeline, which will extend 234 miles to Malin, near Klamath Falls. Together, the terminal and pipeline will create hundreds of new jobs and millions of dollars in economic benefits. The Project will also expand the region's natural gas supply, which will stabilize prices for consumers and attract new industry. Here's how:

Needed: A new natural gas source

Oregon now imports approximately 80 percent of its natural gas from Canada, a situation that can't be sustained because Canada is consuming a greater share of its own natural gas production. In addition, Canadian production has not kept pace with demand, which means there is less natural gas available for export to the United States. The Canadian National Energy Board has even published that net exports out of Canada may drop to zero by 2030. In the meantime, Oregon's need for natural gas is increasing as the state's population and economy





grow. In addition, wind, solar and other renewable energy sources are requiring more firm power to balance the times when the wind doesn't blow and the sun doesn't shine. This new, firm power need is best filled by natural gas, the cleanest fossil fuel.

Over the last several years, southwest Oregon already has experienced significant price spikes during periods of peak demand. Traditional gas supply sources, such as Rockies and Canadian production, probably won't be able to meet Oregon's needs since these supply sources are increasingly serving new competitive markets. This is no surprise since natural gas is North America's fastest-growing energy source. This means Oregon will have to look elsewhere for natural gas.

Jordan Cove – Pacific Connector: The best option

At Coos Bay, the Jordan Cove terminal would off-load the LNG from tankers and store it. The LNG would be restored to its gaseous state before being shipped through the Pacific Connector pipeline to Malin, linking up to other transmission and distribution pipelines along the way. Much of the natural gas would power businesses and heat homes in Oregon, with the remainder supplying Washington, Nevada and northern California.



Best port for LNG deliveries. The Port of Coos Bay is the best deepwater port between San Francisco and Puget Sound. Located only seven miles from the Pacific and with deep-draft vessel traffic currently less than one-fifth of the levels seen in the 1990s, the addition of LNG vessel traffic will pose little interference with other maritime commerce.

Malin market center. Malin, Ore. is the largest natural gas market center in the Pacific Northwest, where three pipelines converge to link Canadian and Rocky Mountain gas production to markets in the Pacific Northwest, Nevada and northern California.

Linking supply with demand. The Pacific Connector pipeline provides the link to deliver gas from the Jordan Cove LNG terminal to major markets. In the process, the Project provides a new source of gas and additional pipeline capacity to new and existing gas customers throughout southwest Oregon.

New source, improved transmission. The Project will provide southwest Oregon with both a new source of natural gas and additional capacity to the existing natural gas transmission system.

Serving the widest market creates benefits for all gas users. The Pacific Connector allows the Project to distribute natural gas to the widest geographic region through existing utilities and interstate pipelines, serving not only Oregon but also northern California, Washington, Nevada and other western states. This diverse market allows the Project to meet peak demand in the Pacific Northwest for heating in the winter while serving northern California's summertime electric air conditioning loads. Additionally, northern California and the Pacific Northwest have large underground natural gas storage systems that allow the Project to store gas during times of low demand for use when high demand strains pipeline capacity and supplies. This breadth of market integration provides supply and price stability for all natural gas users.



LNG: The logical choice

As LNG, natural gas can be transported safely and economically from sources around the world, including Alaska, Australia and Peru, among others. LNG is simply the liquid form of natural gas. It is formed by cooling natural gas to minus-260 degrees Fahrenheit. LNG is clear, colorless, odorless and non-toxic.

LNG can be stored in larger quantities than natural gas, because it takes up a tiny fraction of the space. Two LNG storage facilities have been in use for many years in Oregon at Portland and Newport, operating as part of the natural-gas distribution network of pipelines.

Unmatched safety record. For more than 40 years, every single ship carrying LNG has traveled safely, without loss of life or cargo, delivering its product to the destination. It is a safety record unmatched in maritime shipping.

An economic boost for southwest Oregon

Creating new jobs, income and tax revenues. Attracting new industry. Boosting economic growth.

The Project will provide an economic boost for southwest Oregon during construction and after completion of the Project. Financed with a \$2.5 billion investment of private capital, the Project offers numerous economic benefits.

New jobs. During the three years of construction, the LNG terminal will employ an average of 450 people. During the two-year construction period for the proposed pipeline, Pacific Connector will employ an average of 1,400 people. Once operational, the Project will employ approximately 60 people, plus another 60 directly related to the Project. A 2006 study by ECONorthwest, an economic consulting firm, analyzed the Project's contributions to Oregon. Nearly 1,200 jobs concentrated in Coos County and southwest Oregon would be directly and indirectly generated once the project is complete and in operation. An estimated 400 of

Economic Growth

Jordan Cove – Pacific Connector would generate:

Jobs	1,200
Income	\$71m
Tax revenues	\$19m*
Economic Activity	\$487m

**County only. All other figures are statewide within Oregon. All dollar figures are per year.*

the new jobs would be in Coos County, including 60 directly employed at the Jordan Cove terminal, with wages averaging more than \$62,000 annually. Another 300-plus would be located elsewhere in southwest Oregon.

New income. The ECONorthwest study also estimated that direct, indirect and induced impacts of the Project would produce more than \$71 million in personal income annually for Oregonians.

New tax revenues. The Project will pay an estimated \$19 million annually in property taxes to the four counties where the Project is located (Coos, Douglas, Jackson and Klamath). Coos County will receive \$13 million annually, and \$6 million will be divided annually among the three remaining counties. These new revenues will flow to schools, fire departments, hospitals, police departments, roads and other public services.

New economic activity. ECONorthwest also projects that more than \$487 million in total economic activity would be generated annually in Oregon by the Project. This figure measures the total dollar volume of transactions stemming from the Project, as the money from income and tax revenues continues to circulate in local communities.

New industry. An assured natural-gas supply at stable prices would improve Coos Bay and southwest Oregon's ability to attract new industry and boost economic growth.



Local Support

An independent public opinion survey in late 2008 showed more than 3-to-1 support for the Jordan Cove – Pacific Connector Project across the four counties where the pipeline would be located.

The survey found that 56 percent of the respondents favored the LNG terminal, compared with only 16 percent who opposed it. A similar number – 54 percent – favored the pipeline, with only 16 percent in opposition. The rest were undecided.

Support was relatively even across Coos, Douglas, Jackson and Klamath counties.

Survey respondents who supported the Project cited the creation of new jobs and additional energy sources as the primary reasons to build the Project.

The survey was conducted by Moore Information, an independent public-opinion research firm based in Portland, Ore. It was conducted by telephone among a representative sample of 400 voters, including 100 in each of the four counties.

Progressing toward approval

Throughout its development, the Project has been committed to working with local, state and federal government agencies to ensure the terminal and pipeline become the best possible project for southwest Oregon. The terminal and pipeline are now proceeding through the federal approval process, under the authority of the Federal Energy Regulatory Commission (FERC). The Project has progressed in meeting FERC requirements and anticipates receiving its Certificate of Public Convenience and Necessity from the FERC in the summer of 2009.

Local & state permits. Upon receiving the FERC certificate, the Project will secure permits from local and Oregon governmental entities, as well as other federal agencies.

Negotiating with landowners. Project personnel will negotiate with landowners, acquire rights of way, and pay fair-market compensation.

Constructing the Project. Construction of the LNG terminal in Coos Bay will take approximately 36 months and generate an average of 450 construction jobs. The pipeline will take two years to build and generate an average of 1,400 jobs during construction.

Land restoration. After construction, the lands along the pipeline will be restored as closely as possible to their original appearance and use, with some restrictions on future building and timber production in the narrow right of way.

Milestones

FERC issues Final Environmental Impact Statement	May 2009
Project receives FERC Certificate	Summer 2009
Construction begins on the LNG terminal	Planned for 3rd quarter 2010
Construction begins on the pipeline	Planned for 2nd quarter 2012
In-service for LNG terminal and pipeline	Planned for 1st quarter 2014



For more information:

- The FERC docket number for the Jordan Cove Energy terminal is CP07-444-000.
- The docket number for the Pacific Connector Gas Pipeline is CP07-441-000.
- The FERC Web site is at www.ferc.gov.
- To contact FERC about the Jordan Cove – Pacific Connector Project, call 1-866-208-3372.

Please contact us

We welcome your questions and comments about the Jordan Cove – Pacific Connector Project. Please see below to call or email us.

Jordan Cove Energy Project

125 W. Central Avenue
Suite 380
Coos Bay, OR 97420
Tel: 541-266-7510
E-mail: info@jordancoveenergy.com
Web site: <http://www.jordancoveenergy.com>

Pacific Connector Gas Pipeline Land Office

161 NE Garden Valley Boulevard
Suite 101
Roseburg, OR 97470
Tel: 541-673-5108
E-mail: pacificconnector@williams.com
Web site: <http://www.pacificconnectorgp.com>
Toll free: 866-227-9249



125 W. Central Avenue, Suite 380 • Coos Bay, OR 97420
Tel: 541-266-7510



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Tel: 541-673-5108 • Toll free: 866-227-9249

The Jordan Cove – Pacific Connector terminal and pipeline development partners include Williams, Fort Chicago Energy Partners, LP, PG&E Corporation, and Energy Projects Development LLC.