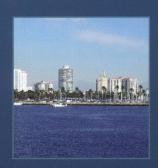
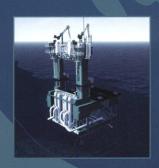


## Port Esperanza

California's Environmentally Responsible Energy Project



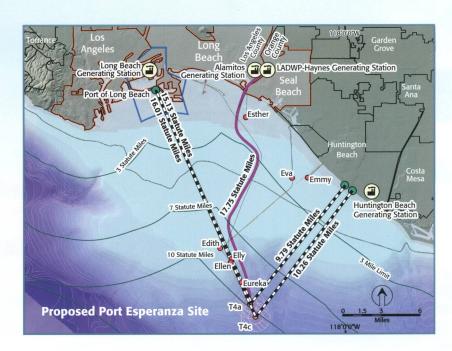




# Port Esperanza: A Smart Addition to California's Energy Portfolio

Demands for cost-effective and reliable energy sources, coupled with tougher clean air and water standards, represent significant challenges to 21st century consumers and governments. Esperanza Energy is eager to help California meet these challenges with innovation and care as it proposes to build **Port Esperanza** – a floating natural gas receiving facility 15 miles off the coast of Long Beach, California.

Esperanza Energy has gathered input from energy industry experts, government agencies, community leaders and environmental groups as it seeks to make Port Esperanza a safe and environmentally responsible liquefied natural gas (LNG) project for California.





#### The Port Esperanza Difference

#### Innovative, Proven Technology

Esperanza Energy will utilize TORP Technology's HiLoad floating regasification unit at the Port Esperanza offshore facility. The HiLoad has a low profile in the water, thereby reducing visual impacts from shore. The system is securely anchored in 1,100 feet of water about 10 miles from the closest point of land, which increases safety through separation from populated areas.

The HiLoad unit securely attaches to an LNG tanker and vaporizes the LNG as it is offloaded. The HiLoad then injects natural gas into undersea pipelines that directly supply California's natural gas markets.

One of the project's unique aspects is the manner in which Port Esperanza warms the super-cooled LNG back into pipeline-ready natural gas. Existing onshore power plants discharge hot water as a byproduct of electricity production. The HiLoad units will connect to an onshore power plant via an insulated 30" water pipeline and will utilize the normally wasted hot water to regasify the LNG, making Port Esperanza highly energy efficient.

#### Environmentally Responsible

Port Esperanza is carefully designed not to have any significant air quality or marine impacts. No petroleum fuels will be stored on the HiLoad that might create a risk of a spill into the ocean. Emissions from LNG supply vessels docking at the terminal will be minimized through the use of natural gas in those marine engines whenever possible.

Port Esperanza is designed to utilize the heated discharge water that would otherwise be released into the ocean from existing onshore power plants. By relocating the discharge point away from sensitive coastal ecosystems to more environmentally acceptable deep water areas, Port Esperanza creates an environmental benefit by reducing an existing environmental impact of coastal power plants. Port Esperanza also can be adapted to derive heat generated from power plants even if once-through cooling processes are reduced or eliminated.

# Mooring buoy —— HiLoad —— Gas line to shore —— Water line from shore Port Esperanza facility

#### Addressing Public Safety

Esperanza Energy's project draws upon the industry's best safety practices and enhances them with innovative combinations of proven technologies.

The facility's offshore location is miles from any coastal population. There will be no onsite LNG storage tanks. The project is located in the U.S. Coast Guard's Vessel Traffic Service active monitoring range — meaning that all ship traffic in the project's vicinity is fully monitored at all times, further adding to the facility's safety and security.

To minimize shoreline impacts, the project will install its water and natural gas pipes, along with communications and electrical lines, within an enclosed conduit buried at least 60 feet below ground level. The conduit will cross under the beach and near-coastal areas in an unpopulated area, and exit on the ocean floor one mile offshore. This deeply buried utility corridor provides for added safety.



"In 2005, Californians consumed nearly six billion cubic feet of natural gas a day, according to the California Energy Commission."

- Los Angeles Times

#### Natural Gas: A Clean Energy Source

Every day, ordinary Californians rely on natural gas to cook their dinners and heat their homes. Natural gas is a clean fuel source that lessens our dependence on foreign oil and the use of coal for the generation of electricity. It fits well into the portfolio approach of energy efficiency, renewables and natural gas power plants recommended in California's integrated energy policy.

LNG is natural gas that has been condensed into its liquid form by cooling it to minus-260 degrees Fahrenheit. Natural gas is often converted to LNG because it can be safely and responsibly transported to the site where it ultimately will be offloaded and converted back into natural gas for use by energy consumers.

Port Esperanza is designed to receive all types of LNG carriers, offload the LNG and convert (regasify) it into natural gas onsite for delivery to onshore markets. Port Esperanza can provide natural gas to the Southern California Gas Company's natural gas pipeline system at a peak rate of 1.2 billion cubic feet per day.

#### Port Esperanza at a Glance

- The project is located more than 15 miles from the Port of Long Beach and about 10 miles from the closest point of land
- The HiLoad system will be anchored in 1,100 feet of water
- The subsea natural gas pipeline will parallel the routes of existing oil and gas pipelines and come onshore buried at least 60 feet below ground level within a protective conduit
- The project will utilize waste heat discharged from an on shore power plant to warm the LNG into commercially usable natural gas
- Port Esperanza can provide 1.2 billion cubic feet of natural gas per day to the gas pipeline system
- The project will have no on-site LNG storage tanks

- All operations onboard the HiLoad unit, including the process of regasification itself, can be conducted without creating air emissions
- Port Esperanza is the only California LNG project located in the U.S. Coast Guard's Vessel Traffic Service active monitoring range
- The project's small physical profile minimizes visual impacts from shore
- The project is designed with extreme consideration for air quality and the marine environment
- Esperanza Energy is utilizing a collaborative process with elected officials, regulators, community members, environmental groups and others to help determine the facility's design and project location



#### Esperanza Energy: A Company for California's Future

Esperanza Energy was founded to bring California consumers new energy sources in a technologically reliable and environmentally responsible manner. Esperanza Energy's goal is to help satisfy California's growing energy needs while remaining committed to best practices from a public safety, community benefit and environmental perspective.

Esperanza Energy LLC is a subsidiary of Tidelands Oil & Gas Corporation.



For more information about Port Esperanza, visit www.esperanza-energy.com





# Port Esperanza

California's Environmentally Responsible Energy Project



## Port Esperanza: California's Environmentally Responsible Energy Project

Appropriate location

Proven technology that works for California

High level of safety

Environmentally sensitive

Regular input from all stakeholders in the ongoing development of this facility



# The Right LNG Project for California

#### Choosing the right location





# The Right LNG Project for California

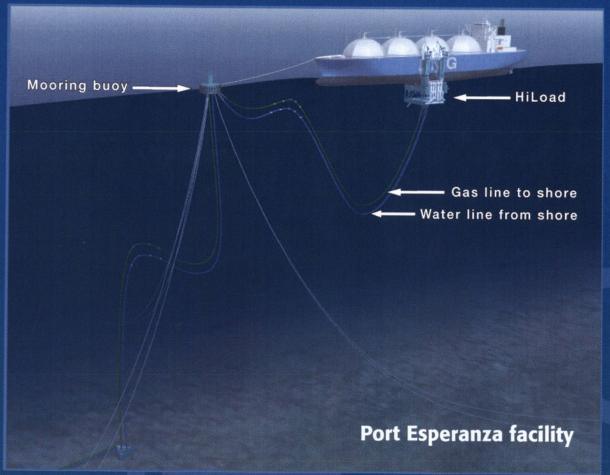
## Embracing proven technology





# The Right LNG Project for California

## **Technology**





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# ESPERANZA ENERGY

# Port Esperanza

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