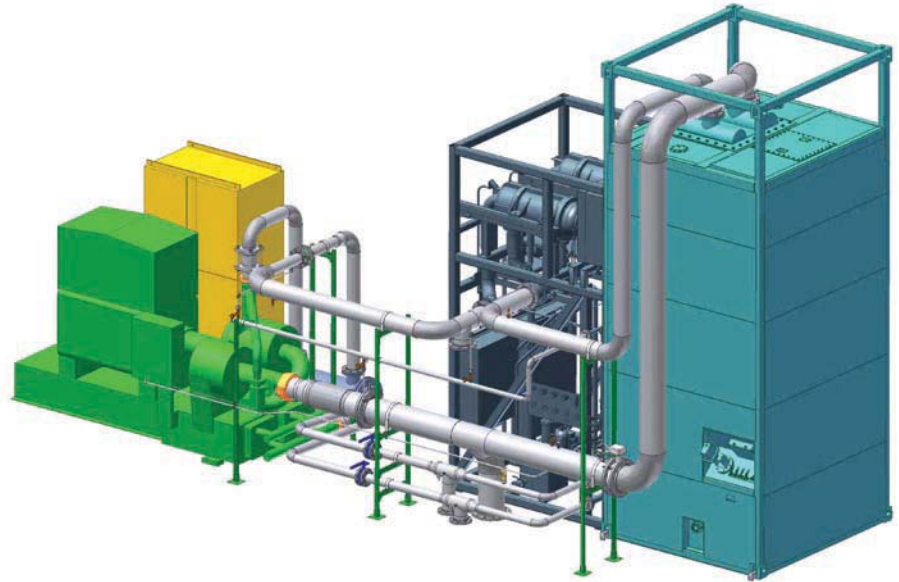


# Cosmodyne delivers LNG liquefiers to large-scale production plant in California

To meet the ever-increasing demand for alternative fuels, Clean Energy Fuels Corp. has begun construction on California's first large-scale LNG (liquefied natural gas) production plant near Boron, approximately 75 miles northeast of Los Angeles. Cosmodyne's 160,000 gallons per day nitrogen cycle liquefier is the heart of the plant. Cosmodyne was selected for its 50 years of cryogenic engineering experience, utilization of "green" refrigerant, and simple modular plant design that allows for quick and easy installation. The Cosmodyne liquefier was delivered on time in March 2008 and is currently being commissioned. The Boron plant is scheduled to begin commercial LNG shipments in the second half of 2008.

Cosmodyne provided two liquefier systems, each consisting of a cold box rated for 80,000 gallons per day, a nitrogen compressor, dual booster loaded ACD turboexpanders and a heat exchanger. In addition, a pipeline gas adsorption system feeding both liquefier systems was provided. Cosmodyne utilizes environmentally-friendly nitrogen as the refrigerant to liquefy the pipeline gas to LNG. The use of nitrogen eliminates the requirement for hazardous hydrocarbon refrigerant storage associated with mixed refrigerant cycles.



Working together with Clean Energy from the concept stage, Cosmodyne's team was able to provide numerous performance iterations, detailed design support and recommendation in plant engineering. For example, due to the high feedgas pressure, the cold box piping and fractionating column were fabricated in stainless steel instead aluminum. However, the cold box design with this added weight required close monitoring to meet the allowable road transportation limits. Similarly, to reduce cost and increase safety, the liquefier layout was arranged so

that major system components such as the recycle compressor were able to be designed for non-hazardous area. Thus, limiting only those items in contact with natural gas to comply with the more costly NFPA-59 requirements.

At this new plant, Clean Energy will liquefy pipeline gas for shipment to customers by tanker trailers. The LNG will be used by vehicle fleets throughout California and the southwestern United States. The facility can be expanded to a production capacity of 240,000 gallons per day. The plant will also have LNG storage capacity of 1.5 million gallons.

Clean Energy's Boron plant is the first commercial LNG plant in California to serve the growing demand from heavy-duty natural gas vehicle fleets such as those at the Los Angeles Ports. The Boron plant is also a major step towards fueling thousands of additional buses and trucks with natural gas, one of the cleanest burning fuels available. Natural gas vehicles emit significantly less greenhouse gases and pollution than vehicles fueled by diesel or gasoline.

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