



Panoche Westside Group LLC

INFORMATION MEMORANDUM & FUNDING OPPORTUNITY

California Energy Commission

DOCKETED

13-ALT-02

TN 73048

MAY 23 2014

I-5 Clean Fuels LLC ("ICF")

Northern California's first major natural gas liquefaction facility

Panoche Westside Group has exclusive development rights to the I-5 Clean Fuels project located on a 66-acre site owned by an affiliate, Panoche Westside Farms, on Interstate 5. The project has completed entitlement through the County of Fresno, including the California Environmental Quality Act ("CEQA") Determination, for construction of a one million gallon per day LNG production facility.

PWG's founders have experience in power, industrial and commercial real-estate development, including financing, construction, new technology integration, and facility operations with companies including Bechtel, Calpine and Century Contractors.

Vision, Market Fundamentals and Objectives

The founders of PWG believe that natural gas will be the fuel of choice for a significant portion of the heavy haul transportation industry. Long haul trucks, agricultural equipment, marine (ships, ferries and tugs) and locomotives will increasingly use LNG as a cheaper - cleaner fuel. We believe this transition from 100% diesel to 30% natural gas will take place before 2025.

The mission of PWG is to build own and operate a number of integrated liquefaction facilities, terminals and fueling stations at strategic locations in California to supply LNG to distributors and liquefied and compressed natural gas ("L/CNG") retail outlets on major highway and to individual large users such as major truck fleet operations, marine and rail applications.

The Company believes that the market will grow rapidly propelled by the cost differential between diesel and natural gas. The spread between diesel fuel and LNG will make conversion to LNG attractive for new long haul trucks and limited conversions of existing ones. The aggressive air emissions limits and evolving regulations to implement the requirements of California Assembly Bill 32 ("AB-32"), that restricts greenhouse gas emissions, will create both requirements and incentives for all transportation operators to convert from diesel to natural gas.

Funding Request

Panoche Westside Group LLC seeks funding totaling \$1.5 million to complete Front End Engineering & Design (FEED) and complete ministerial permitting of I-5 Clean Fuels.

Public support for completion of the FEED process will:

- Leverage the CEC's \$1.5 million investment into a \$98 million private investment within 24 months- the projected total project cost.
- Break the "chicken and egg cycle" and provide the supply security truck operators are looking for prior to committing to LNG.

- Lower the carbon pathway of California's LNG fuel supply by significantly reducing distribution distance.
- Capitalize on previous CEC funded LNG trucks- both in terms of lowering carbon fuel pathway for existing LNG trucks and lowering LNG fuel costs due to large regional production volume.
- Create 25 permanent middle class jobs and 60 construction jobs.

With \$1.5 million in funding from CEC becoming available in the summer of 2014, I-5 Clean Fuels could be operation in mid-2016.

The LNG Market in Northern California

The market for LNG will be driven by both lower cost and lower emission when compared to diesel. Preliminary contacts with potential customers and market research give us confidence that the market will expand rapidly when production capacity and guaranteed cost competitive supply is within range of potential LNG users. The LNG market is developing regionally. The ICF production facility will be the regional anchor for Northern California. Large LNG users are already using LNG in other regions where the fuel is currently available. We have been told by these users that should supply become available in Northern California, they can quickly transfer LNG vehicles to this region.

The target markets for PWG include:

- Long Haul and Terminal Truck operations
- Marine users – Tugs & Ferries, Ocean Going Ships
- Rail - Conversion of locomotives to LNG

California is investing billions of dollars towards making its goods movement system the cleanest system possible; and LNG trucks are playing an increasingly important role in cleaning the air. Therefore, demand for LNG as high-horsepower engine fuel in Northern California is likely to grow rapidly over the next five years driven by favorable LNG pricing and increasingly strict air emission regulations. Marine demand will grow as emission requirements and cost factors encourage use of LNG as a substitute for diesel and bunker fuel for ocean-going vessels, ferries, tugs and barge operators.

LNG is Cheaper

At existing market prices for diesel and natural gas LNG can be produced and delivered for \$1.25 to \$1.45 per equivalent gallon less than diesel. This means a savings of \$20,000 per year for the average truck operator.

LNG is simply cleaner!

The LNG produced at the ICF facility will replace the diesel fuel used for long-haul trucks, agricultural operations, and other high-horsepower engine applications in Fresno County, San Joaquin Air Pollution Control District (which is chronically in non-attainment) and throughout Northern California and will result in substantial air quality and greenhouse gas reduction benefits. The reduced emissions will have a significant impact on the Central Valley air quality. Compared to diesel LNG results in:

- A reduction of more than 20 percent in greenhouse gas emissions (carbon dioxide, methane, and nitrous oxide)
- A reduction of more than 80 percent in smog-forming pollution (oxides of nitrogen and volatile

organic compounds); and

- A reduction of more than 60 percent in particulate matter pollution.

The Project: I-5 Clean Fuels Phase 1

The ICF Project (“Project”) will be built on a 66-acre parcel at the intersection of I-5 and West Panoche Road. The initial 250,000 gpd Phase-1 will be located on 20 acres of the site. The site is ideally located near both high-pressure gas and electric transmission systems. A new 3-mile pipeline spur will bring natural gas to the project. An existing 115kv transmission line that crosses the site will provide primary or back-up high voltage service.

The Project is ideally situated to supply Northern California wholesale and retail refueling sites along major highways and rail transportation corridors. All the San Francisco Bay Area cities and major distribution centers are within two hour drive of the ICF site.



The ICF site is strategically located in the mid-point of California’s Central valley.

The site is:

- Within 300 miles of approximately 30 million people.
- 130 miles from the Port of Oakland.
- 80 miles from Stockton/Tracy distribution area.
- Near major long haul truck routes

The process that will be utilized in the production of LNG is a straightforward refrigeration process using a single mixed-refrigerant to reach the low temperatures needed to liquefy natural gas. No new technology is involved. The conceptual design includes the use of an air-cooling liquefaction process to minimize water requirements. A nationally recognized equipment supplier and an experienced engineering and construction contractor will provide cost and performance guarantees.

The ICF Project will be an efficient and environmentally friendly production facility. The process chosen will minimize local impacts and provide regional environmental benefits.

Government Incentives & Regulatory Programs

California's transportation system accounts for about 200 million tons of greenhouse gas ("GHG") emissions per year, which equates to 38% of the state's GHG emissions. California's transportation system is also the primary source of smog-forming and toxic air pollution in the state. Numerous regulations and incentive programs established at the federal, state, and local levels have targeted cost-effective reductions in these emissions through the increased use of alternative fuels such as LNG. ICF will take full advantage of these programs that include:

AB 32 Scoping Plan For the transportation sector, the Plan includes aggressive deployment of LNG trucks, implementation of stringent new GHG regulations for medium and heavy-duty vehicles.

CARB's AB 32 Cap & Trade program California Air Resources Board's Plan for achieving near and medium term emission reductions relies heavily on deploying medium and heavy duty natural gas trucks, including LNG trucks, in large numbers.

California Energy Commission is developing and deploying advanced transportation technologies to attain the state's climate change policies. The CEC manages an annual program budget of approximately \$100 million, to support projects that increase the development and use of low carbon fuels.

SJAPCD San Joaquin Air Pollution Control District has an LNG specific incentive program. The program reimburses up to \$60,000 incremental cost per vehicles for LNG fueled refuse trucks. The program will begin in the summer of 2014.

Environmental Protection Agency In the 2009 rule, EPA has adopted Tier 2 and Tier 3 emission standards for newly built Category 3 off-road engines.

- Tier 2 standards apply beginning in 2011. They require the use of engine-based controls, such as engine timing, engine cooling, and advanced electronic controls. The Tier 2 standards result in a 15 to 25% NOx reduction below the Tier 1 levels.
- Tier 3 standards apply beginning in 2016. They can be met with the use of high efficiency emission control technology such as selective catalytic reduction (SCR) to achieve NOx reductions 80% below the Tier 1 levels.

Management Team

The PWG team has extensive experience in power generation, industrial and commercial projects including greenfield development, mergers and acquisitions, construction management, O&M and accounting and administration. PWG plans to recruit additional staff during the Permitting Phase with construction and operations expertise to assist with engineering, permitting, and project execution.

Founders and existing staff includes:

- Garrett Rajkovich: 30 years' experience in real estate development and management
- Richard Zahner: 35 years' experience with Bechtel, Calpine, Diamond Energy, and others.
- Nick Rajkovich: 5 years' experience in real estate development and MBA in LNG conversion
- Chuck Clark: 35 years' experience with Calpine, Dravo, Century Contractors and others.

Funding Request

Panoche Westside Group LLC seeks Front End Engineering & Design (FEED) funding totaling \$1.5 million to complete the design and permitting of I-5 Clean Fuels.

Public support for completing the FEED process will:

- Leverage the CEC's \$1.5 million investment into a \$98 million private investment within 24 months- the projected total project cost.
- Break the "chicken and egg cycle" and provide the supply security truck operators are looking for prior to committing to LNG.
- Lower the carbon pathway of California's LNG fuel supply by significantly reducing distribution distance.
- Capitalize on previous CEC funded LNG trucks- both in terms of lowering carbon fuel pathway for existing LNG trucks and lowering LNG fuel costs due to large regional production volume.
- Create 60 construction jobs and 25 permanent middle class jobs.

With \$1.5 million in funding from CEC becoming available in the summer of 2014, I-5 Clean Fuels could be operation in mid-2016.

FOR MORE INFORMATION PLEASE CONTACT:

**NICK RAJKOVICH
DEVELOPMENT MANAGER
PANOCH WESTSIDE GROUP LLC
6475 CAMDEN AVE SUITE 202
SAN JOSE CA 95120
NICK@PANOCHWESTSIDEGROUP.COM
408-858-9226**