

The Honorable Carla Peterman, Commissioner
The California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

California Energy Commission

DOCKETED

12-ALT-02

TN # 68914

DEC 18 2012

Re: Docket No. 12-ALT-02

Dear Commissioner Peterman,

Vopak Terminal Long Beach respectfully requests that the California Energy Commission modify the 2013-2014 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVT Program) to include funding for infrastructure to handle gasoline substitutes, specifically marine storage terminals. Funding will thereby be set aside for marine infrastructure to accommodate the anticipated future ethanol and biofuel storage that will provide the lower carbon intensity gas substitutes to address the California's Low Carbon Fuel Standard (LCFS).

According to the CEC's Fuels and Transportation Division, industry studies, and our own internal projections, a large increase in the demand for Brazilian-based sugarcane ethanol will take place over the next several years to meet mandated reductions for carbon intensity (CI) under the LCFS. The delivery of sugarcane or other lower CI ethanol will require marine infrastructure and additional storage capacity in California, particularly Southern California. Additionally, without adequate marine storage, Brazilian ethanol will flow to the U.S. Gulf Coast and then be sent to California by rail, costing the State jobs and revenue.

Vopak's most recent estimate anticipates that 1 million to 2 million barrels of marine-based storage is necessary to sufficiently handle the anticipated increased ethanol trade flows from Latin America. The state must expand its terminal infrastructure to support these volumes; however, these sugarcane ethanol imports will wane within six to ten years as other lower carbon intensity biofuels are developed. As such, the new infrastructure Vopak intends to provide will satisfy both the near-term Latin American sugarcane ethanol imports, as well as the longer-term lower carbon intensity domestic biofuels through the construction of several new rail spots and the full utilization of our existing dock.

Vopak's proposed plans to expand our marine storage terminal in the Port of Long Beach is in response to the needs of the LCFS for ethanol and other biofuels. The new clean products terminal expansion project in Long Beach is currently under preliminary port review, and the new capacity would address the impending need for imported ethanol storage. Our estimated initial project cost is approximately \$61 million.

The uncertainty of the future for the LCFS creates hesitation amongst potential customers to commit to our project, lenders for the project, as well as Vopak's Board of Directors, who have witnessed a CEQA process that often does not allow industry to be nimble in meeting market demands. If the CEC could venture into a public-private partnership with Vopak by providing a minority percentage of the necessary infrastructure funds, both Vopak and the State of California would be in a better position to address market needs and capital concerns.

We look forward to working with the CEC in helping the state and industry achieve its greenhouse gas emissions reduction goals by providing the infrastructure needed to meet the LCFS requirements. Thank you for reviewing our request.

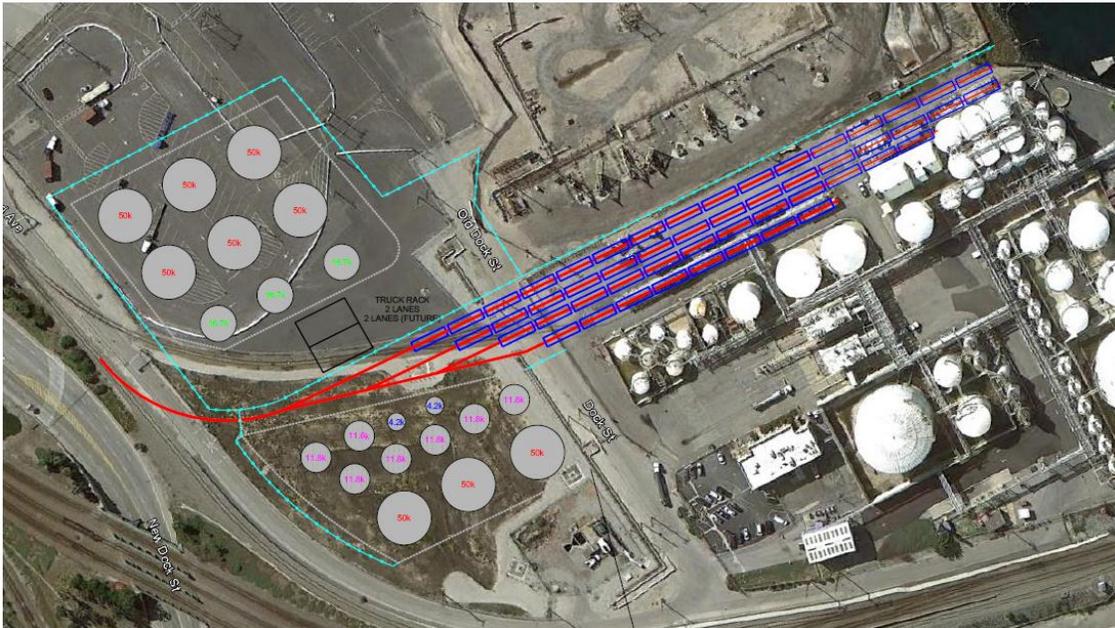
Sincerely,

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Investment Proposal



Vopak Terminal Long Beach Expansion Project



December 18, 2012



REQUESTED MANDATE

Vopak North America would like to request funding for a Clean Products Terminal Expansion Project (The Project) at Vopak Terminal Long Beach (VTLB). The request asks the California Energy Commission to consider funding 25% of the \$61M project in two phases. The plan would be to disperse the funds in two phases; the first funds would provide \$500,000 for the predevelopment phase of the project, covering costs for initial engineering and planning. If the project successfully undergoes the CEQA process, the remaining funds would be released to help finance the construction phase of the project and provide necessary marine storage capacity to facilitate compliance to the California LCFS.

COMPANY BACKGROUND

Royal Vopak is the world's leading independent provider of conditioned storage facilities for bulk liquids. Vopak operates terminals in 31 countries worldwide, and offers storage and handling facilities for oil products, biofuels, chemicals, vegetable oils, and liquefied gases. Managing a network of 84 terminals, and located along the world's major shipping routes, the company will reach over 208 million barrels capacity by year 2014. As a key bulk liquid storage provider, Vopak plays an important role in import/export opportunities via marine storage terminals in major ports across the world.

Vopak's North America Division operates 9 deep-water marine terminals - US (7) and Canada (2). On the West Coast, Vopak operates three facilities – Vopak Terminal Los Angeles (VTLA) is comprised of a marine facility and an inland facility, while Vopak Terminal Long Beach (VTLB) is comprised of one marine facility. VTLA total capacity: 2.4 million barrels; VTLB total capacity: 360k barrels.

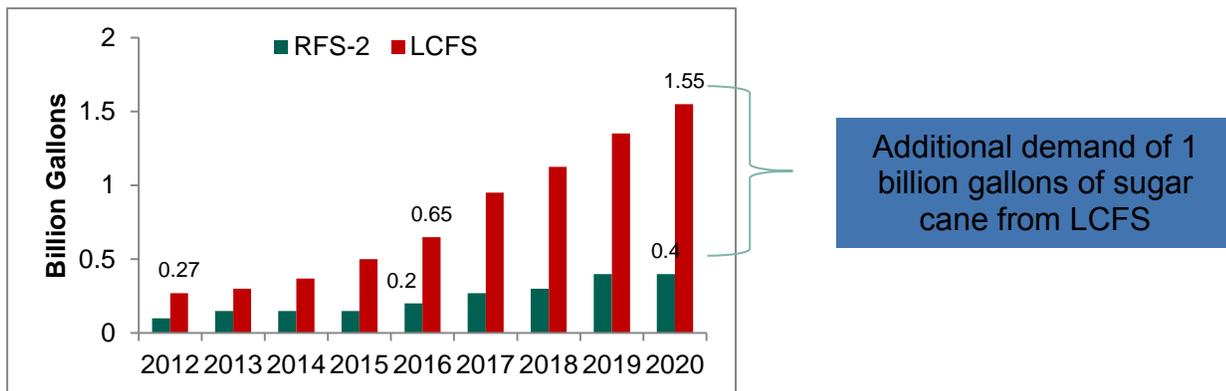
THE MARKET

General Overview

The US transportation fuel sector has experienced several regulatory changes over the past few years, which have created significant increases in the usage of biofuels as blending components. One of the key federal mandates largely affecting the composition of transportation fuels is the US Environmental Protection Agency's (EPA) Renewable Fuel Standard (RFS) 2, which requires a minimum level of renewable fuels to be blended into gasoline and diesel by 2022. Another impactful regulation is California's Low Carbon Fuel Standard (LCFS), which has set a goal of a minimum 10% reduction in the carbon intensity (CI) levels of transportation fuels by 2020, staggered over the next several years. This standard has identified the various categories of fuels and biofuels and assigned each category a corresponding carbon intensity value, with the optimal goal being to achieve the lowest net CI value each year.

| Year | Carbon Intensity for Gasoline and Fuels Substituting for Gasoline (gCO ₂ e/MJ) | Gasoline and Fuels Substituting for Gasoline % Reduction in Carbon Intensity | Carbon Intensity for Diesel and Fuels Substituting for Diesel (gCO ₂ e/MJ) | Diesel and Fuels Substituting for Diesel % Reduction in Carbon Intensity |
|------|---|--|---|--|
| 2011 | 95.61 | 0.25% | 94.47 | 0.25% |
| 2012 | 95.37 | 0.50% | 94.24 | 0.50% |
| 2013 | 94.89 | 1.00% | 93.76 | 1.00% |
| 2014 | 94.41 | 1.50% | 93.29 | 1.50% |
| 2015 | 93.45 | 2.50% | 92.34 | 2.50% |
| 2016 | 92.5 | 3.50% | 91.4 | 3.50% |
| 2017 | 91.06 | 5.00% | 89.97 | 5.00% |
| 2018 | 89.62 | 6.50% | 88.55 | 6.50% |
| 2019 | 88.18 | 8.00% | 87.13 | 8.00% |
| 2020 | 86.27 | 10.00% | 85.24 | 10.00% |

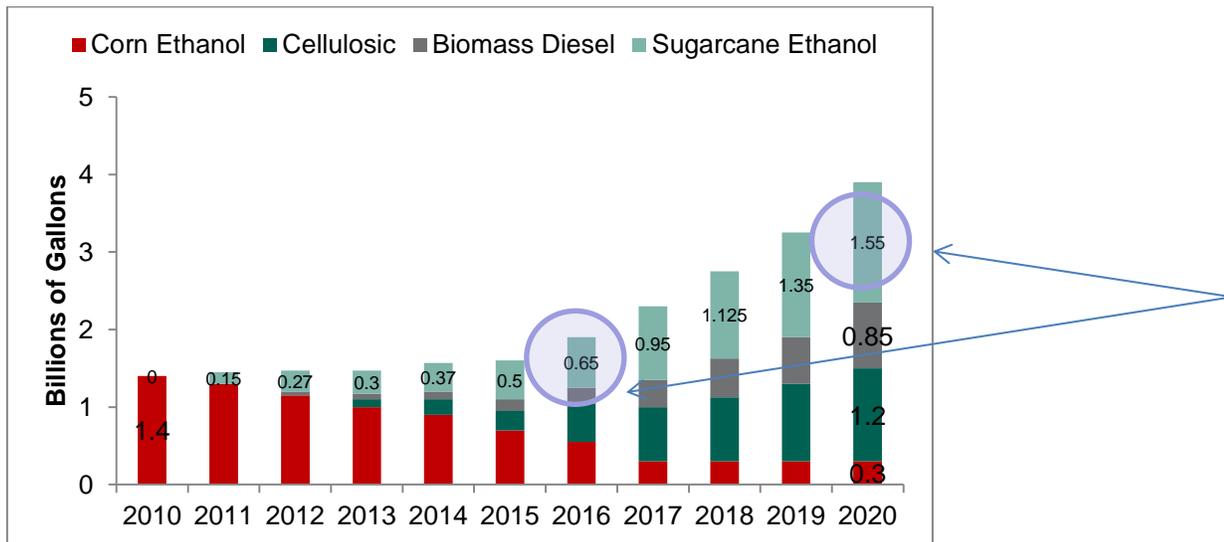
Though impacted by the RFS2, the LCFS in California plays a stronger role on local obligated parties, specifically, transportation fuels refiners and blenders. By comparing the two mandates, it is apparent the LCFS's Brazilian sugarcane ethanol demand far exceeds that of the RFS2. As shown in the chart below, there will be a 1 billion gallon demand difference between the two standards in 2020.



Aligning with the goals of the LCFS, parties must begin blending larger quantities of lower CI-valued biofuels such as Brazilian sugarcane ethanol, biodiesel, or cellulosic ethanol. However, the technologies for commercial-scale cellulosic ethanol production have not yet been achieved, resulting in Brazilian sugarcane ethanol being the most beneficial option for obligated parties. Because of this, it is anticipated that over the next several years through 2020, the demand for imported Brazilian sugarcane ethanol will increase significantly in growing increments each year.

Anticipated Volumes

By 2016, it is projected that 650 million gallons (gal) of sugarcane ethanol will be demanded in California, resulting in a potential storage need of 1 to 2 million barrels within the state. And by 2020, the projected demand will increase to 1.55 billion gal, creating a storage requirement of up to 3.5 million barrels.



Modes of Import to California

There are three economic ways to import Brazilian ethanol to California:

- **Option 1:** Shipping it directly to California ports via the Panama Canal
- **Option 2:** Shipping it directly to California ports from the West Coast of Latin America
- **Option 3:** Shipping it to Houston and then railing it to California

The following tables compare costs between two scenarios; Scenario 1 assumes unit trains for the rail, while Scenario 2 assumes manifest rail cars.

| Mode of Transportation | Scenario 1: Import Options (per Metric Ton) | | |
|------------------------|---|--------------|---------------|
| | Option 1 | Option 2 | Option 3 |
| Vessel | \$ 80 | \$ 50 | \$ 47 |
| Rail | \$ - | \$ - | \$ 55 |
| Truck | \$ 14 | \$ 14 | \$ - |
| Terminal | \$ 12 | \$ 12 | \$ 8 |
| Total | \$ 106 | \$ 76 | \$ 110 |

| Mode of Transportation | Scenario 2: Import Options (per Metric Ton) | | |
|------------------------|---|--------------|---------------|
| | Option 1 | Option 2 | Option 3 |
| Vessel | \$ 80 | \$ 50 | \$ 47 |
| Rail | \$ - | \$ - | \$ 71 |
| Truck | \$ 14 | \$ 14 | \$ - |
| Terminal | \$ 12 | \$ 12 | \$ 8 |
| Total | \$ 106 | \$ 76 | \$ 126 |

Taking into consideration just the cost comparison, the Gulf Coast-imported ethanol traveling by unit train into California costs \$4/MT more than if imported directly by vessel into the state. If considering manifest rail in Scenario 2, there is a \$20/MT cost advantage to import the product directly into California via vessel.

Two additional factors to consider are: 1) there currently is no existing unit train infrastructure to import ethanol from the Gulf Coast into California; 2) future unit train capacity will have to compete with rising crude oil volumes transported by train into California. These constraints would only drive up transportation rates and minimize the amount of ethanol that can be transferred by train from the Gulf Coast into California.

From these cost estimates and the current Latin American ethanol infrastructure, it can be concluded that the most likely mode of transport to import sugarcane ethanol into California is Option 1, shipping it directly by vessel through the Panama Canal. As a result, large volumes of Brazilian sugarcane ethanol imports will be anticipated to enter by water into Californian ports over the next several years, thereby creating a need for marine storage infrastructure to receive these volumes.

Other Low Carbon Intensity Biofuels

Brazilian sugarcane ethanol will satisfy the low carbon intensity requirements of the LCFS for a period of time (predicted 6-10 years according to a study by Stillwater & Associates), while other lower carbon intensity biofuels will need to replace ethanol in the fuel blend to meet stricter LCFS mandates in future years. Vopak Terminal Long Beach would make the transition to these biofuels when it's a necessary and scale-able. VTLB's location to the major refineries in the Los Angeles Basin makes it an excellent distribution center for ethanol and biofuels.

VOPAK TERMINAL LONG BEACH

Currently the Southern California market primarily imports ethanol from the US Midwest via unit train, but will begin to see increasing volumes of Brazilian sugarcane ethanol enter the region via water beginning 2013. The main third party ethanol storage providers in this area are Shell Carson, Petro Diamond, and Vopak Terminal Long Beach, with only VTLB and Petro Diamond set up to receive marine-imported volumes.

| Southern California Ethanol Storage Terminals | | | | |
|---|---------------------------------------|-------------------------|---|--------------------------------|
| Company Name | Type of Ethanol Imported | Modes of Transportation | Rail Capacity | Terminal Capacity |
| Vopak Terminal Long Beach | Brazilian sugarcane | Vessel/Rail/Truck | 10 rail spots | 56,710 cbm (357,000 bbls) |
| Shell Carson | US Midwest corn | Vessel/Rail/Truck | Up 30 unit trains via Kinder Morgan Lomita Rail Station | 715,420 cbm (4.5 million bbls) |
| Petro Diamond | Brazilian sugarcane & US Midwest corn | Vessel/Barge/Truck | Potential to add 5 rail spots | 73,130 cbm (460,000 bbls) |

In order for an ethanol storage terminal to be competitive in the next several years, it must be able to offer suitable capacity, marine vessel handling and railcar capabilities.

Clean Products Expansion Project at Vopak Terminal Long Beach (VTLB)

Vopak Terminal Long Beach is located in the Port of Long Beach in Southern California. The VTLB Clean Products Expansion Project is located on approximately 7.2 acres of Port of Long Beach-owned property adjacent to the VTLB facility. The Project anticipates adding 591,100 barrels (bbls) of storage capacity in 21 tanks in two tank farms. The tanks and their corresponding sizes are found below:

| Tank Size | Tank Farm Capacity | | Tank Diameter | Tank Height |
|-------------------------|--------------------|----------------------------------|-----------------|-----------------|
| | Quantity | Volume | | |
| 7,950 cbm (50k bbls) | 9 | 71,542 cbm (450k bbls) | 22.86 m (75 ft) | 19.51 m (64 ft) |
| 2,655 cbm (16,700 bbls) | 3 | 7,965 cbm (50,100 bbls) | 15.24 m (50 ft) | 14.63 m (48 ft) |
| 1,876 cbm (11,800 bbls) | 7 | 13,132 cbm (82,600 bbls) | 12.80 m (42 ft) | 14.63 m (48 ft) |
| 668 cbm (4,200 bbls) | 2 | 1,335 cbm (8,400 bbls) | 7.62 m (25 ft) | 14.63 m (48 ft) |
| Totals | 21 | 93,974 cbm (591,100 bbls) | | |

The Project will more than double the capacity of the existing VTLB site. Some assets would be shared amongst The Project and the VTLB to control cost and increase efficiencies. One of the shared assets is the facility's only dock, which can accommodate up to 52,730 dead weight tons (DWT) and has a 34 foot draft, and is currently 25-30% utilized. A minimum of one line will be added to connect the dock with the new tank farms.

VTLB has 10 working rail spots, which are near capacity, creating a need for the project to add an additional forty spots to support partial unit train offloads. The Project is also looking to build a total of four new truck rack lanes. The added rail spots will connect with and run adjacent to the ten incumbent spots, while the new truck lanes will be built separately on the expansion land, away from the terminal's existing racks.

Project Impact

The Project anticipates storage of low carbon intensity biofuels, particularly Brazilian sugarcane the first few years after project completion, and then accommodation for other lower CI biofuels, produced locally in the state and elsewhere. The Project will provide the infrastructure that the state currently lacks, which will be needed in the next several years, to help California achieve its overall Greenhouse Gas Emissions reduction goals through the LCFS and other regulations. Vopak is aiming to be a first mover as a key storage provider for the Southern California region, and is working with key producers, potential customers, Port representatives, and legislators to achieve this goal.

In addition to the critical storage infrastructure, The Project will also play an important role in the local community. It will give the Port of Long Beach the opportunity to participate in the development of a clean energy project, as well as provide many new temporary and permanent jobs for the local community.

Project Cost Estimate

The following table provides a breakdown of the estimated cost for The Project, totaling approximately \$61,000,000. Additional detailed engineering would need to be performed to obtain a more precise cost estimate for the project. A plus or minus 40% cost estimate was prepared World Energy Development. Ed Ferrer was the consultant assigned to The Project. The company has provided experience and advise on many new project builds cost estimates in the terminal industry, including most recently on the Pier Echo Project in the Port of Long Beach.

| PRIME CODE | DESCRIPTION | QTY | UOM | MATL \$/UNIT | LABOR HRS/UNIT | LABOR HOURS | S/C HOURS | LBR RATE \$/HR | MATERIAL COST | LABOR COST | S/C COST | TOTAL COST |
|-----------------------|---|-------|--------------|-------------------------------|----------------|---------------|-----------|-----------------|---------------------|--------------------|--------------------|---------------------|
| DIRECT COSTS | | | | | | | | | | | | |
| 50 | MAJOR EQUIPMENT | 39 | EA | | | 4,798 | | \$133.99 | \$5,811,500 | \$642,900 | \$9,124,000 | \$15,578,400 |
| 51 | DEMOLITION - Contaminated Soil | | CY | | | | | | | | | |
| 52 | SITE EARTHMOVING | | CY | | | | | | | | | |
| 53 | SITE IMPROVEMENTS | 1 | LT | | | 48,528 | | \$116.00 | \$3,530,000 | \$5,629,100 | | \$9,159,100 |
| 54 | PILING, CAISSONS | | EA | | | | | | | | | |
| 55 | BUILDINGS | | SF | | | | | | | | \$19,200 | \$19,200 |
| 56 | CONCRETE | 1,844 | CY | \$2,035 | 13.7 | 25,304 | | \$116.00 | \$816,400 | \$2,935,300 | | \$3,751,700 |
| 57 | MASONRY, REFRACTORY | | SF | | | | | | | | | |
| 58 | STRUCTURAL STEEL | 2% | | FACTORED OFF EQUIPMENT COST | | | | | | | | \$312,000 |
| 59 | CORRUGATED SIDING & DECKING | | SF | | | | | | | | | |
| 60 | FIREPROOFING | | SF | | | | | | | | | |
| 61 | DUCTWORK | | LBS | | | | | | | | | |
| 62 | U/G PIPING | | LF | | | | | | | | | |
| 62 | PIPING & INSULATION | 28% | | FACTORED OFF EQUIPMENT COST | | | | | | | | \$4,362,000 |
| 64 | INSTRUMENTATION - Transfer Meters | 4 | LT | | | | | | \$1,470,000 | | | \$1,470,000 |
| 64 | INSTRUMENTATION | 8% | | FACTORED OFF EQUIPMENT COST | | | | | | | | \$1,246,000 |
| 65 | ELECTRICAL | 8% | | FACTORED OFF EQUIPMENT COST | | | | | | | | \$1,246,000 |
| 66 | PAINTING - SCAFFOLDING - SAFETYWATCH BERTHS | 4% | | FACTORED OFF EQUIPMENT COST | | | | | | | | \$623,000 |
| | PIPELINE and HDD by ARB | | | SEE PIPELINE COST BELOW | | | | | | | | |
| | ALLOWANCE FOR COLD IRONING AND AMECS | | | | | | | | | | | |
| 77 | FREIGHT (INCLUDED ABOVE) | | | | | | | | | | | |
| A | TOTAL DIRECT COST (TDC) | | | | | 78,629 | | \$117.10 | \$11,627,900 | \$9,207,300 | \$9,143,200 | \$37,767,400 |
| 81 | SALES TAX | | | | | | | | \$1,079,700 | | | \$1,079,700 |
| INDIRECT COSTS | | | | | | | | | | | | |
| 75 | CONSTRUCTION SERVICE LABOR | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 76 | TEMPORARY FACILITIES | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 78 | PREMIUM PAY | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 79 | CRAFT FRINGES | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 80 | PAYROLL TAXES & INSURANCE | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 81 | NON-PAYROLL TAXES & INSURANCE | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 83 | SMALL TOOLS | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 84 | CONSUMABLES | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 85A | CONSTRUCTION EQUIPMENT | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| 87A | FIELD STAFF | | | INCLUDED IN CRAFT ALL IN RATE | | | | | | | | |
| | Offsite Facilities / Laydown Yard Rental | | | PROVIDED ON SITE | | | | | | | | |
| | CONSTRUCTION MANAGEMENT | 5% | Of TDC | | | | | | | | | \$1,700,000 |
| B | TOTAL INDIRECT COST | | | | | | | | | | | \$1,700,000 |
| C | ACCUMULATIVE TOTALS | | | | | 78,629 | | 117.0976 | \$12,707,600 | \$9,207,300 | \$9,143,200 | \$40,547,100 |
| OTHER COSTS | | | | | | | | | | | | |
| 90 | DETAILED ENGINEERING & DESIGN | 10% | of TIC | | | | | | | | | \$3,776,740 |
| | ENVIRONMENTAL PERMITS | | | | | | | | | | | \$1,250,000 |
| | AIR CREDITS | | | | | | | | | | | \$3,500,000 |
| | Construction Permits/Fees | | | | | | | | | | | \$290,000 |
| D | SUBTOTAL COSTS | | | | | | | | | | | \$49,363,840 |
| | ESCALATION | | Not Included | | | | | | | | | |
| | CLIENT COSTS | 2% | | | | | | | | | | \$987,000 |
| 98 | CONTINGENCY | 20% | | | | | | | | | | \$10,070,168 |
| E | TOTAL INSTALLED COST | | | | | | | | | | | \$60,421,008 |
| | Pipeline Cost from Wharf (16"-1200 ft) | | | | | | | | | | | \$500,000 |
| | | | | | | | | | | | | \$60,921,008 |

PROJECT SCHEDULE

Elements of The Project are to begin immediately. The initial steps of the project would require significant lead times, as they involve the submittal to, and approval from, external agencies. One large component includes creating a written Notice of Preparation (NOP), to be submitted to the South Coast Air Quality Management District (SCAQMD) prior to the Draft Environmental Impact Report (EIR), The Draft EIR would likely take 18 to 24 months for approval. The anticipated construction time is for build-out is 18 months, while the approval time for permits is subject to agency determination. If the project commences in Q2 2013, as planned, the estimated date of completion and start of operation will be in Q2 2016.

LETTERS OF SUPPORT

Letters of support provided upon request.