CALIFORNIA ENERGY COMMISSION

CALIFORNIA NATURAL RESOURCES AGENCY

California Energy Commission

Clean Transportation Program

FINAL PROJECT REPORT

Fontana Renewable Fuels Terminal Expansion

Prepared for: California Energy Commission

Prepared by: New Leaf Biofuel, LLC

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Christopher White
Lenara Funk
Primary Authors

New Leaf Biofuel, LLC
2285 Newton Avenue
San Diego, CA 92113
https://newleafbiofuel.com/ (www.newleafbiofuel.com)

Agreement Number: ARV-021-050

Taiying Zhang
Commission Agreement Manager

Charles Smith
Branch Manager
STRATEGY, EQUITY, AND ECONOMIC BENEFITS BRANCH

Hannon Rasool
Director
FUELS AND TRANSPORTATION

Drew Bohan
Executive Director

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- Separation by Design, the main designer and construction contractor for the project. Separation by Design kept focus and contained the budget through COVID and related delays and completed the project on time and with minimal commissioning delays. Special thanks to Roy Jorgensen, President, and David Shortz, Site Manager, for their efforts.
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- Baker Commodities are the parent company of New Leaf Biofuels and provided the capital funds and contract approval for the project.

PREFACE

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the Clean Transportation Program. The statute authorizes the California Energy Commission (CEC) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change and clean air goals. Assembly Bill 126 (Reyes, Chapter 319, Statutes of 2023) reauthorized the funding program through July 1, 2035, and focused the program on zero-emission transportation.

The Clean Transportation Program has an annual budget of about $100 million and provides financial support for projects that:

- Develop and deploy zero-emission technology and fuels in the marketplace.
- Produce alternative and renewable low-carbon fuels in California.
- Deploy zero-emission fueling infrastructure, fueling stations, and equipment.
- Establish workforce-training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies

To be eligible for funding under the Clean Transportation Program, a project must be consistent with the CEC's annual Clean Transportation Program Investment Plan Update. The CEC issued GFO-20-608 to increase the availability and use of biodiesel and renewable diesel in transportation. In response to solicitation number GFO-20-608, the recipient submitted an application which was proposed for funding in the CEC's notice of proposed awards on November 5, 2021 (which was revised, increasing the proposed award by one million dollars on November 19, 2021). The agreement was executed as ARV-21-050 on April 8, 2022.

ABSTRACT

The Fontana Renewable Fuels Terminal Expansion project was funded to increase the throughput of New Leaf Biofuel's existing blending terminal in Fontana, California, from approximately 10 million gallons per year—equivalent to 28,000 gallons per day—of biodiesel and renewable diesel to 88 million gallons per year by 2027. This upgrade will result in a total increase of 78,000,000 gallons per year of eligible blended biofuels.

The project included construction of a tank farm to enable multiple railcars to simultaneously offload biofuel at a high rate directly into tanks instead of into waiting trucks. This allows rapid railcar turnaround and continuous high-rate automated truck loading 24 hours per day. The tank farm contains two 8,500-barrel storage tanks, three 13,600-barrel tanks, a new piping and pumping system, and associated controls, electrical systems, and instrumentation.

The terminal was designed to provide users with the opportunity to store and dispatch specific fuel qualities and brands separately and to blend renewable diesel and biodiesel in any ratio desired. Rapid, fully automated loading and data systems were included to ensure target throughputs could be met.

The project has enabled New Leaf Biofuel to transload renewable fuels sufficient to offset up to 723,146 metric tons of carbon dioxide equivalents per year, while reducing criteria air pollutants and toxic air contaminants. The terminal has already reached over 70% of this target in its first 4 months of full user occupancy.

Keywords: Biodiesel, renewable diesel, storage, rail, terminal, blending, automation, throughput volume.

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EXECUTIVE SUMMARY

Renewable fuels such as biodiesel and renewable diesel support California's plans to reduce harmful emissions from diesel powered transportation and reduce the carbon footprint from these activities. A major enabling factor in the promotion of increased replacement of fossil fuels with renewable fuels is the ability to efficiently and cost effectively transport these fuels to market and distribute them to end customer facing retail outlets. Under California Energy Commission grant agreement ARV-21-050, the Fontana Renewable Fuels Terminal Expansion project helped increase the availability and use of biodiesel and renewable diesel in transportation.

New Leaf Biofuel (New Leaf) increased the throughput at its existing renewable fuels terminal from 10 million gallons per year of renewable fuels capacity to 88 million gallons per year of capacity. In addition, the operating capabilities of the terminal were enhanced to allow users to deliver and load out specific fuels, brands, qualities, and blends individually. The completed project meets a portion of the total demand for high-blend (B20 (20% biodiesel) and higher) biodiesel and renewable diesel in California.

The terminal is well-positioned within high-demand markets in Southern California's Inland Empire, as well as regional markets along the eastern Los Angeles metropolitan area, San Bernardino, Riverside, San Diego, and Imperial Counties. Servicing these markets was historically hampered by downstream proprietary infrastructure that limited access to biofuels, had limited or no product separation capability, and limited consumer price competition. Regional fuel purchasers were therefore limited to generic fuels and limited blends. Retail outlets can now source higher blends of biodiesel, with very competitive pricing at a local terminal.

Technical Design

The project leveraged an existing transload facility and was based on up-to-date technologies and equipment that were fully proven at other facilities nationwide and provided compatibility with a wide range of terminal user supply chain and logistics systems. High level automation was a key focus to provide the throughput capabilities needed for longer capacity expansion.

Project Execution

New Leaf selected well-qualified providers and designers for the project delivery. The project was on time even with significant upgrades to piping systems, automation, and site access. New Leaf had its own project leadership team to ensure physical, financial, and operational tasks were all coordinated for the target start date. The project had a less than 1 week commissioning period before commencing full operations.

Market and Supplier Arrangements

The project was originally based on a single vertically integrated market supplier but with their withdrawal as an active project partner New Leaf was able to add two new entrants to this market to address the strong regional market demand for higher biofuel blends. Both new participants are also upstream producers and suppliers of biofuels. This wider participant base also provides the potential for peak volumes at the terminals to well exceed the original

targets with greater downstream market access. New Leaf is still in trials with additional suppliers to increase biodiesel volumes through the terminal.

Supply Chain Competitiveness

The rail terminal is dual served by the Union Pacific and BNSF railroads, increasing logistical and commercial rail supply options into the facility and helping to minimize operational costs. The terminal team is also already experienced with day-to-day fuel supply management and terminal optimization and have deployed additional optimization software to support this process. These factors make the terminal a strong supply chain competitor to other options in addition to its renewable fuel credentials.

Terminal Customers

During the project, New Leaf acquired a strong customer group in addition to New Leaf's own biofuels trading activities. These include SC Fuels (now part of the Pilot Travel Center group), Chevron Renewable Energy Group (a fully integrated producer, distributor, and retailer of renewable fuels), and Saint Bernard Renewables (a renewables producer and marketer). All parties are highly motivated to increase renewable fuels availability and uptake in southern California.

Financial Viability

The project was successful in its financial and operational sustainability and will support throughput volumes in excess of the original goals. The 3-year operational target of the grant proposal is likely to be exceeded in only the second year of operations.

CHAPTER 1: Introduction

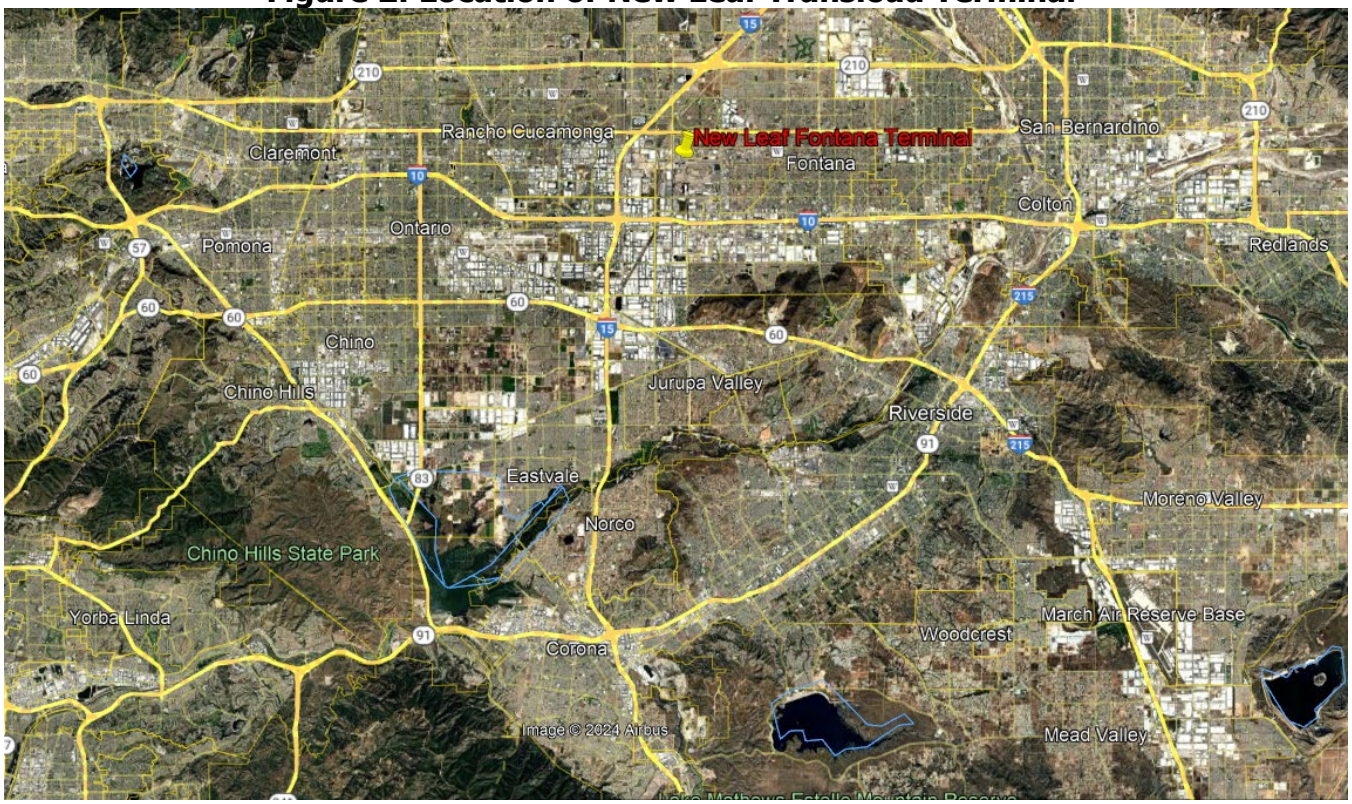
New Leaf Biofuel was established to help improve the air quality in southern California, especially for disadvantaged and low-income communities. During its development, the company became aware of the undersupply of renewable diesel and biodiesel through a range of distribution and supply chain channels. To address this, an initial transloading facility was constructed in Fontana, California, bringing renewable diesel and biodiesel to fuel distributors (Figure 1).

Figure 1: Initial Fontana Transload Terminal

Source: Google Earth

The location of the terminal (Figure 2) made it attractive as a loading facility due to its location in the center of the Inland Empire region and its proximity to major highways for destinations further south.

Figure 2: Location of New Leaf Transload Terminal



Source: Google Earth

Transloading operations direct from railcars require continuous manning and regular railcar movements and are often slow for loading. These factors in addition to limited automation and data handling placed a cap on the opportunity to increase renewable supply volumes.

To overcome this, New Leaf, in conjunction with its partners, MHX Solutions, Separation by Design, and Baker Commodities, developed a storage tank facility proposal to add to the existing terminal facilities. The goal was to increase the throughput capacity while decreasing costs and loading times. This required a more rapid turnaround of railcars, fast loading times, full automation of the loading process and documentation, and increased logistics management and service to terminal users.

CHAPTER 2:
Project Rationale

At the time of the development of this project, New Leaf operated a small biodiesel plant in San Diego. It was clear from interactions in the marketplace that southern California had a shortfall in renewable fuels supply and in particular low-cost terminal services dedicated to renewables. Existing resources were comprised of general fuel terminals, usually with pipeline connections and rail-to-truck transload facilities.

New Leaf had also already established a rail to truck transload facility at the Fontana, California MHX rail terminal — a general transload facility that had space for additional activities. Key features of this terminal were its central location with good access to north-south and east-west freeways, dual service from BNSF and Union Pacific railroad serving yards, liquid fuels experience, and a lot of low sidings making moving cars in and out for offloading in different combinations easier.

The initial basis for the terminal plan was as a joint venture with SC Fuels who would occupy three 13,600-barrel renewable diesel tanks, and New Leaf would supply biodiesel for blending in two 8,500-barrel tanks. Grant funding was secured from the CEC, as well as the U.S. Department of Agriculture, on the basis of the need and potential for this distribution resource and the capability of the facility and the New Leaf operational team.

The terminal expansion project was developed and grants applied for in 2019 for completion in 2021 but with the COVID-19 pandemic and subsequent supply chain disruptions, the project was not able to be commenced until 2023. The execution of the project was halted in 2020 and extensions to grant funding timelines were approved. As COVID-19 restrictions abated in 2021, the project was revived but shortly thereafter SC Fuels was acquired by Pilot Travel Centers. This led to an extended re-evaluation of the partnership arrangement and SC Fuels' commitment resulting in the withdrawal by SC Fuels in late 2022.

New Leaf canvassed other existing partners in renewable fuels supply in southern California and found there was significant demand for terminal services where suppliers had independent storage for their own fuels. Based on this demand, New Leaf sought a partnership to complete the project with the rail facility owner MHX and commenced construction in 2023 while still finalizing the terminal user commitments with a range of customers.

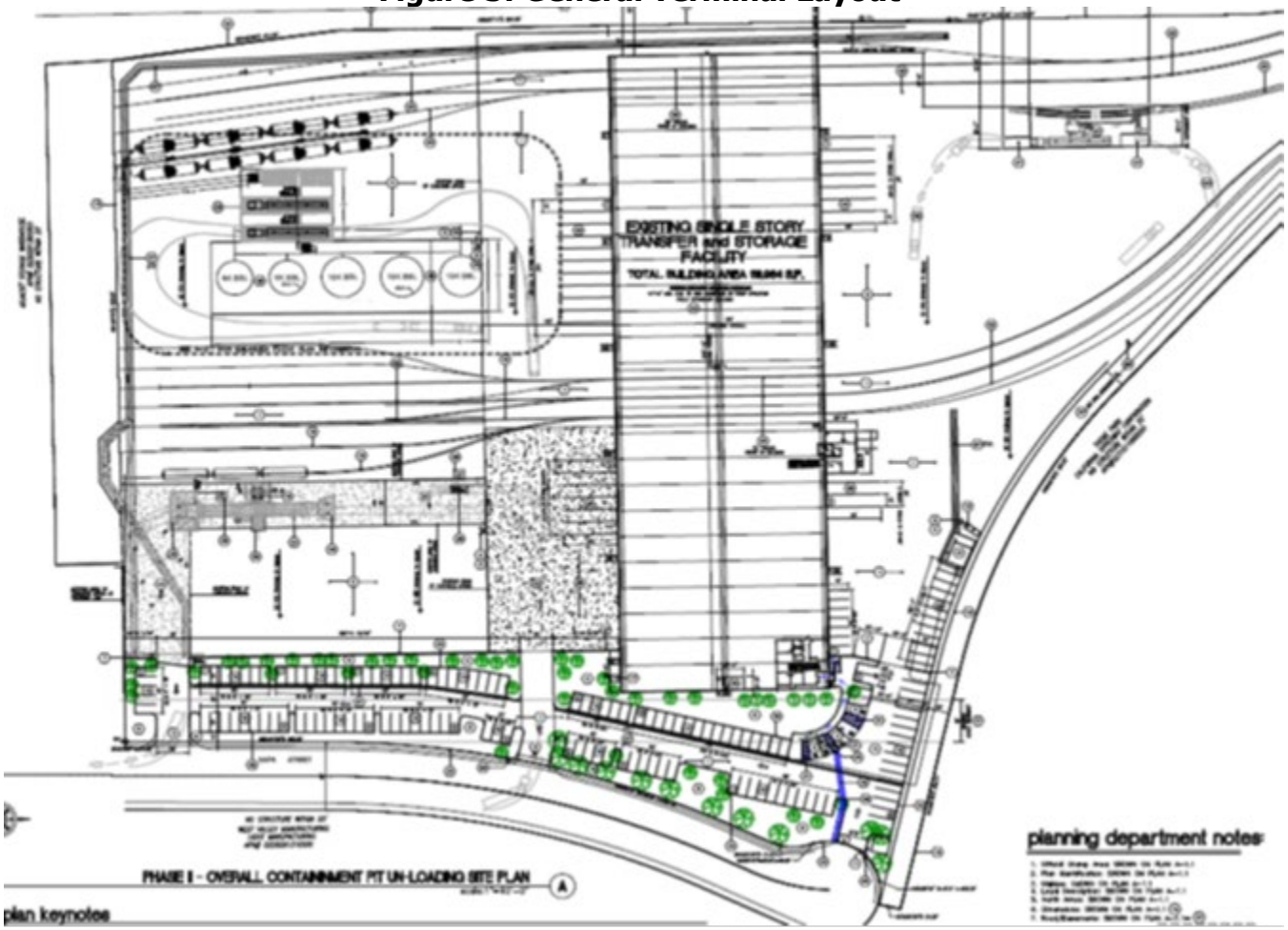
The objective in selecting partners was to meet or exceed the volume targets for the terminal while maintaining biodiesel blending as a key outcome. At the same time, the unloading and loading systems had to support these new arrangements with operating costs and revenues that were financially viable.

CHAPTER 3:
Design and Construction

Initial Design

The initial design was conceived around the partnership with SC Fuels. The design was comprised of five tanks, three 13,600-barrel renewable diesel tanks and two 8,500-barrel biodiesel tanks. The tanks were to be interconnected for each fuel type so that they acted as a single tank. This design was required as the site did not have space for low flat tanks to get the volume needed, therefore the tanks were taller and narrower than usual. The layout in general is shown in Figure 3.

Figure 3: General Terminal Layout

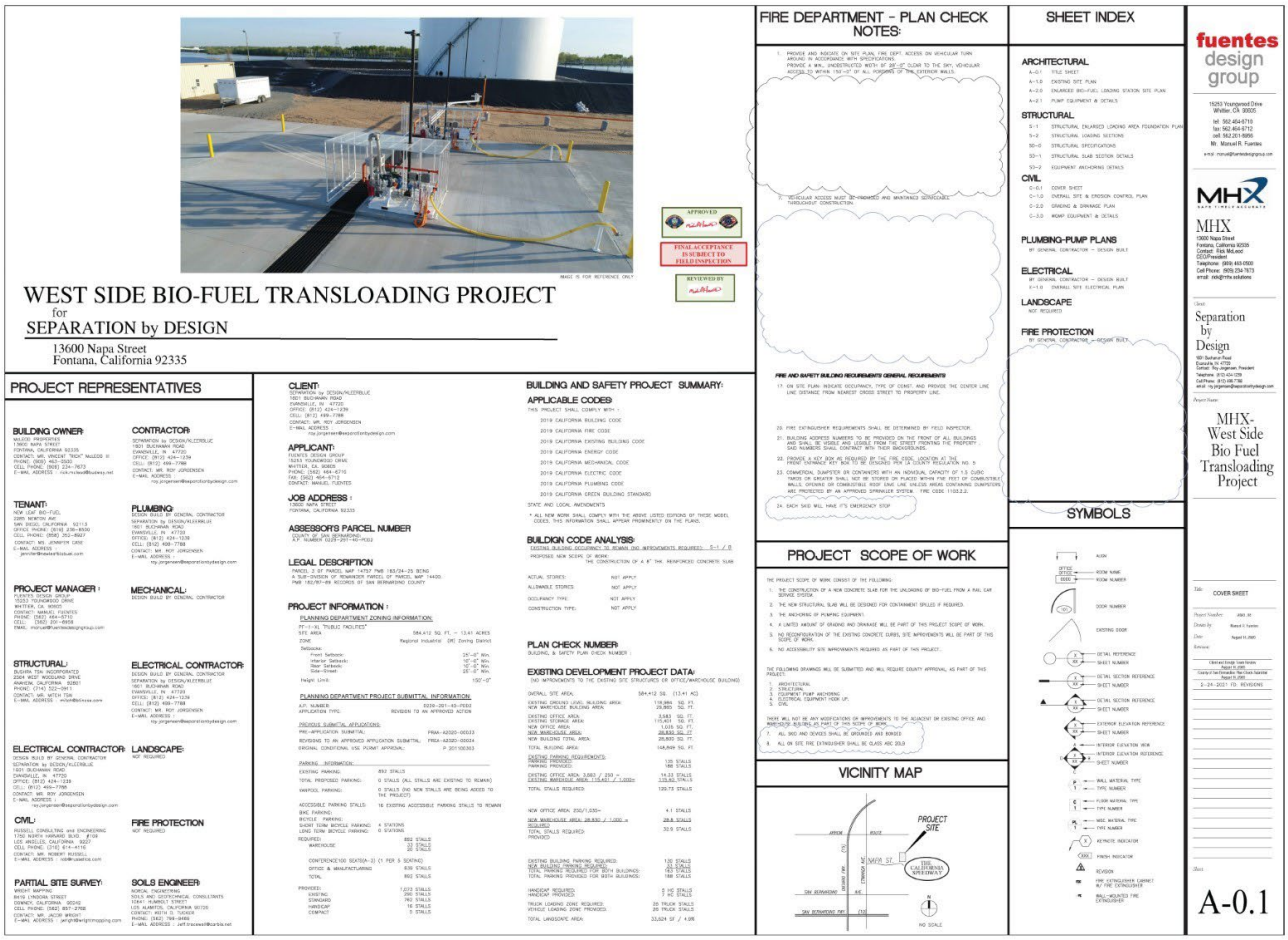


Source: New Leaf Biofuel, LLC

Planning and Permitting

Full planning documents were prepared around the original design and permitting processes commenced soon after the initial grant award. The delays due to COVID-19 meant that some permits awarded needed to be extended prior to the commencement of construction in March 2023.

Figure 4: Approved Plan Set



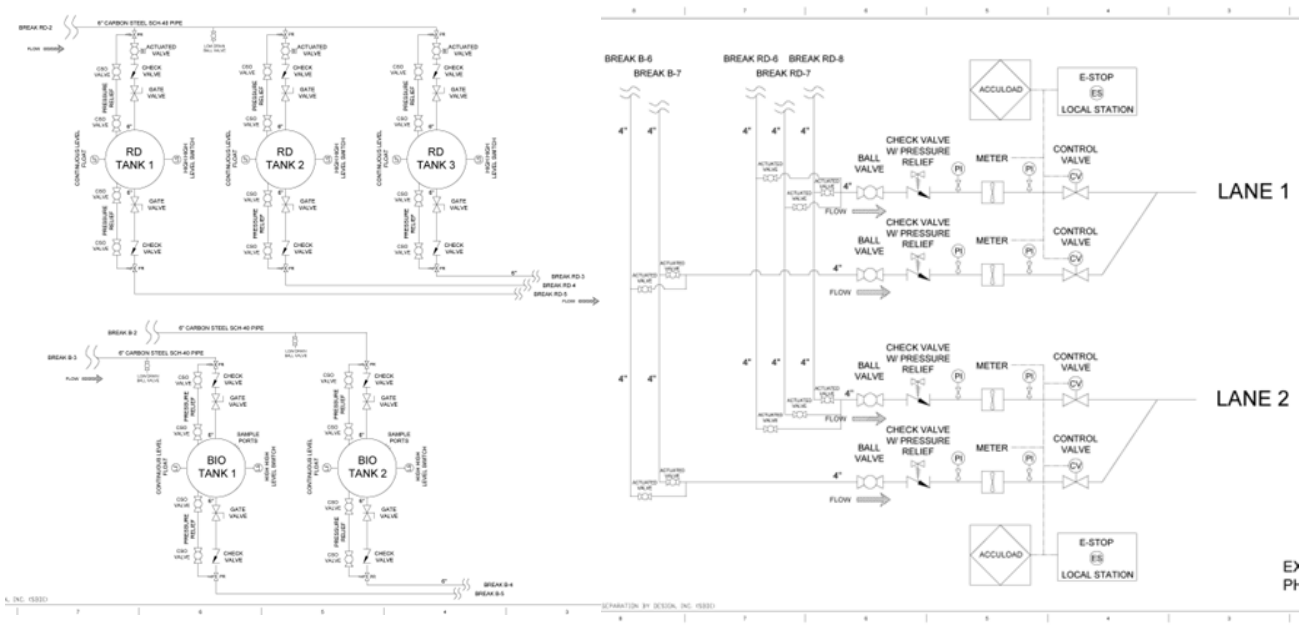
Source: New Leaf Biofuel, LLC

Project Changes Prior to Construction

Due to the changes in the partnership arrangement with SC Fuels, the scope of project needed to be changed to accommodate a different operational model allowing terminal users to store and dispatch specific fuel grades or brands. To do this, New Leaf requested a change to separate piping to each tank from the railcar connection rack and separate pumps and pipes from each tank to the truck loading and blending stations.

To make this system practical to operate, all pump and valve controls were fully automated. Figure 5 shows the new arrangement. The additional costs of these changes were met by the project partners.

Figure 5: Revised Flow Diagrams, Individual Tanks



Source: New Leaf Biofuel, LLC

A second set of changes were needed for terminal access. Existing paved access was only partial and was suffering considerable degradation. The access areas also suffered from local flooding during rainfall. To correct this, a drainage plan was developed, the failed concrete was to be removed and replaced, and new asphalt roadways and concrete V drains placed in the access route for the terminal (see Figure 6).

Figure 6: New seal and V-drain for stormwater management

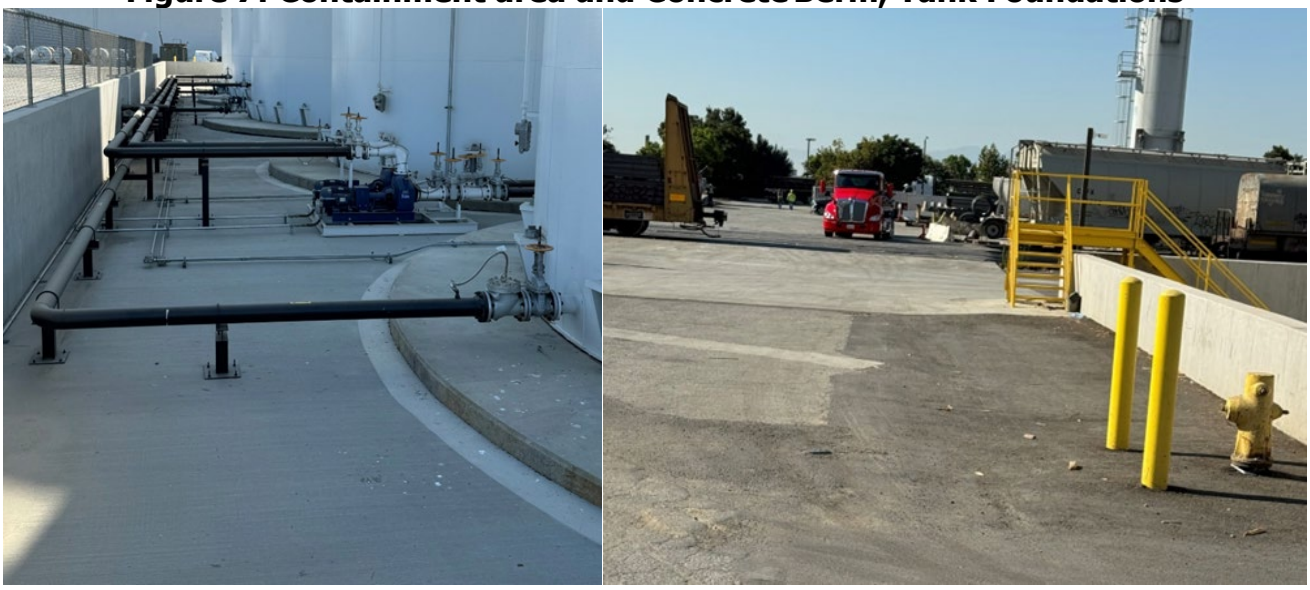
Source: New Leaf Biofuel, LLC

Construction

The construction project was comprised of five main elements: earthworks and containment construction; tank construction; rail-to-tank transfer pumps, pipework, and valves; tank-to-truck pumps, pipework, and valves; and electrical, instrumentation, and controls.

Work commenced with the excavation for the containment berm and the concrete work to establish the walls against the concrete platform of the existing transload facility and the MHX sealed surface. Once this was completed the foundations for the first tank were excavated, and the reinforcing and concrete placed. These foundations were laid in succession so the tank construction could commence on the first foundation while the laying of the next was in progress. The remaining two sides of the containment were left open to allow movement of cranes around the tank construction work area. Figure 7 shows excavated containment area and concrete base and berm on the left and stair to containment on the right.

Figure 7: Containment area and Concrete Berm, Tank Foundations



Source: New Leaf Biofuel, LLC

The tanks were assembled from pre-rolled steel segments forming the successive strakes of each vessel. Tank lids were also constructed on site from pre-cut and formed sections and the completed lids lifted onto the finished tank bodies. When completed, the tanks were hydrotested then blasted and painted. Finished renewable diesel and biodiesel tanks are shown in Figure 8 and Figure 9. At the conclusion of tank construction, the remaining containment walls were constructed and the balance of the concrete floor around the containment was placed.

Figure 8: Three Renewable Diesel Tanks with 13,610 Barrel Capacity

Source: New Leaf Biofuel, LLC

Figure 9: Two Biodiesel Tanks with 8,530 Barrel Capacity

Source: New Leaf Biofuel, LLC

At the conclusion of the tank construction there was a short delay of around 8 weeks due to supply chain issues with the pump supplier. This meant that the final piping system construction and installation had to be held over as it required the pumps to be placed before completion. While awaiting the pumps, the wiring, instrumentation, and control systems were installed. The pumps arrived in January 2024, and the piping installation and electrical work were then completed. The old transload system piping was removed and replaced with the

new rail-to-tank and tank-to-loadout piping manifold. Wiring was completed to the pumps and control system and the new terminal was ready for commissioning in late January.

Figure 10: Tank Discharge to Truck Loading Pumps

Loading pumps to discharge from tank to truck. The left are pumps for biodiesel tanks; the middle and right pumps are for renewable diesel tanks. Note: The grant proposal only had two pumps, one for each fuel. This separation and the additional pumps were added to meet market demand.

Source: New Leaf Biofuel, LLC

Construction Employment

The construction of the project was carried out by several subcontractors working under the supervision of the lead contractor Separation By Design. The main work divisions are summarized in Table 1.

Table 1: Construction Employment by Divisions

Project Component	Occupations	Employee Days*
Earthworks	Machine/truck operators, supervisor	120
Concrete works	Concreters, drivers, machine operators, supervisor	380
Tank Construction	Welders, steel formers, crane operators, engineers, painters, inspector, supervisor	920
Piping and Equipment Installation	Pipe fitters, fabricators, welders	430
Electrical and Control	Electricians, control technician, IT technician	190
Project Management	Site supervisor, engineering, planning consultants, accounting	360
	Total Employee Days	2,400

*Employee days are estimates as contracts were lump sum

CHAPTER 4:
Pre-Commissioning Planning

Planning Elements

Due to changes in the terminal processes and equipment, several non-construction preparations were necessary prior to the initial fill and commissioning of the new tank terminal to ensure safety measures were implemented and compliance with procedures. These included:

- A full redraft of standard operation procedures and the development of new training plans for operators and drivers using the terminal. These were developed jointly by New Leaf, Separation by Design, and MHX personnel.
- A full overhaul of safety programs and safety training to cover the additional equipment and structures. MHX and New Leaf operational and safety professionals collaborated on this task to provide a safe start up for both the truck and rail aspects of terminal operations.
- Additional environmental management and compliance procedures including emergency response plans. All aspects of environmental compliance were reviewed to ensure the new terminal operation could proceed without environmental risk. The large storage volume required a new emergency response plan including covering tank rupture and clean up.
- A detailed maintenance plan comprised of daily/weekly/monthly periodic inspections by operators and maintenance specialists and a guide for recognizing potential problems and causes of failure. Availability and lead time were used to assess risk for various categories of breakdown requiring new parts. The critical spares were sourced, and a new on-site storage container and cataloging system was developed.

Non-Construction Planning Execution

A separate but parallel project management scheme and schedule was developed for the planning objectives. To minimize distraction to the physical construction project, New Leaf managed this project by enlisting MHX, Separation by Design, and other consultants, regulators, and specialists needed for the work. The planning elements were carried out in parallel to ensure all were completed prior to the target commissioning date.

CHAPTER 5: Commissioning

The commissioning process for the new tank terminal was planned in detail as it had to be executed in a very short time window and meet all regulatory, operational, safety, and data management requirements.

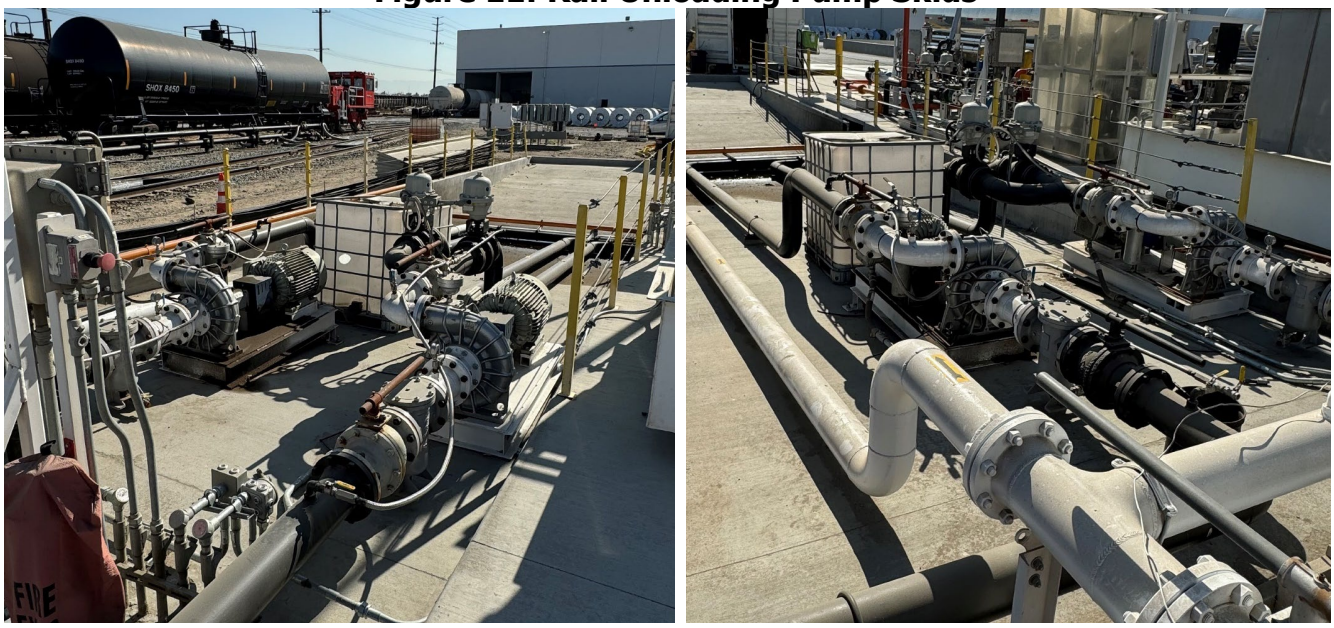
Physical Pre-start Checks

Physical pre-start checks covered the main equipment and infrastructure items and verified the energization of electrical equipment. Steps included:

- Line walks of all pipelines to check for weld and flange faults, correct line ups (i.e., things in the correct orientation), and that nothing was closed that should be open or vice versa
- Torque tests of all bolted joints, lids, and covers to ensure no leaks
- Wire and earth inspections and full electrical review for explosion proof compliance
- Motor control energizing and motor and actuator bump tests to ensure all motors and valves function and turn in the correct direction
- Sequence test dry runs to ensure railcar unloading and truck loading actions perform correctly with the equipment.

Figure 11 shows rail unloading pump skids. The left side is a biodiesel unloading pump, and the right is a renewable diesel unloading pump.

Figure 11: Rail Unloading Pump Skids



Source: New Leaf Biofuel, LLC

Test Tank Fill

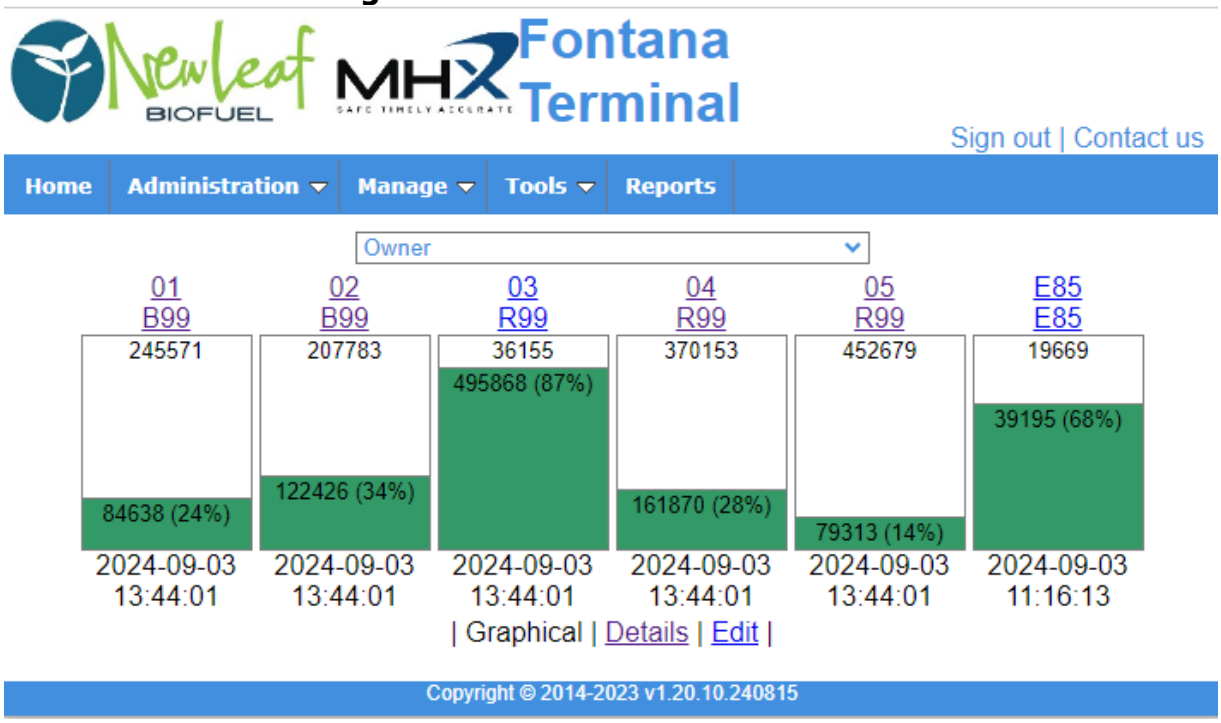
The first step in wet commissioning the facility was then to get fuel into a tank. Rail cars were connected and the transfer pump initiated successfully. The initial fill also verified pumping rates and allowed the tank level monitoring system to be tested.

Data Entry Confirmation

The automation systems at the terminal were updated to both manage the physical aspect of unloading railcars and loading trucks and to collect and disseminate data relating to these activities. A program was executed by New Leaf and GVM Integration, the system supplier, to make sure these systems worked correctly, had the proper interface connections, and that access was set up. Training for all parties was provided prior to commissioning.

Much of the GVM Integration system data and configurations were entered during the pre-commissioning planning project but now live load data needed to be entered, and trial communications of inwards and outwards data were carried out. Customers can now view all transactions with their railcars and tanks in real time, can enter load orders, and can receive completed load data in a variety of ways including full integration with their own dispatch systems. Figure 12 shows the terminal interface.

Figure 12: GVM Terminal Interface



Source: New Leaf Biofuel, LLC

Metering Tests

Prior to loading the first trucks, the metering systems at each load out point had to be tested. A metering specialist conducted parallel metering with the terminal equipment to confirm the terminal meters were measuring within required margins of error.

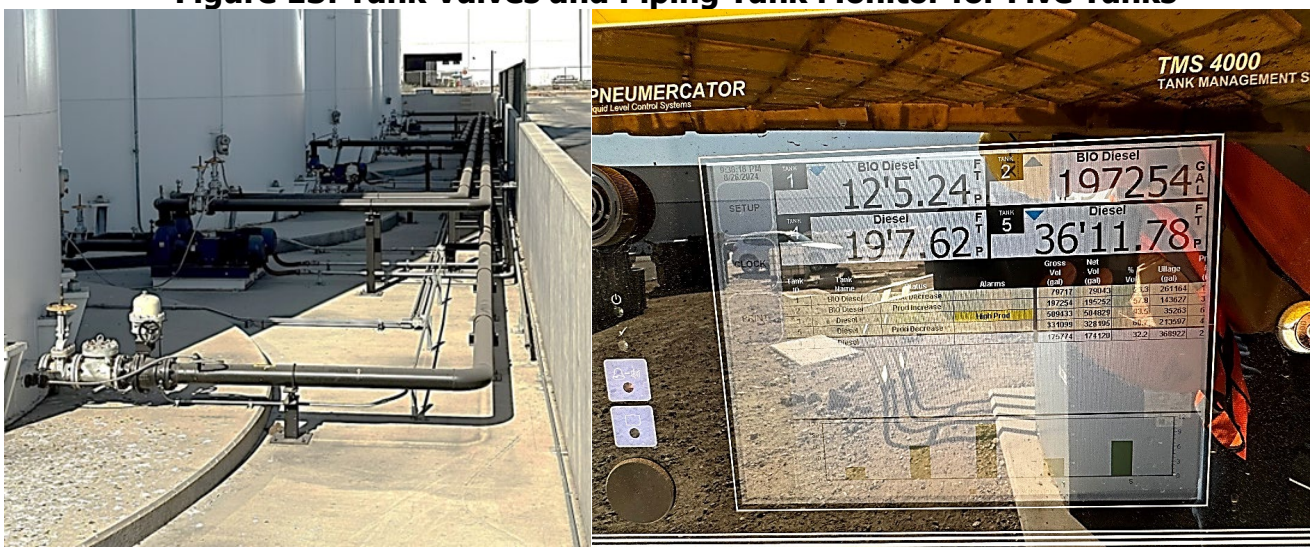
Truck Loading Tests

The first truck loading tests took place on January 31, 2024. These confirmed that the loading programming accurately loaded the truck tanker compartment to within the prescribed limits and maintained a blend ratio of biodiesel to renewable diesel at the product target. At the

conclusion of these tests the commissioning was complete, and the terminal commenced normal operations on February 1, 2024.

Figure 13 shows tank valves and piping tank monitor for five tanks. The left is the piping system and tanks valves; the right is the pneumercator tank monitoring system.

Figure 13: Tank Valves and Piping Tank Monitor for Five Tanks



Source: New Leaf Biofuel, LLC

Figure 14 shows load out piping. The left is the Lane 1 individual tank to loadout manifold; the right is the Lane 2 individual tank to loadout manifold.

Figure 14: Load out Piping

Note that the grant proposal included only common product lines to the loadout. The upgrades not covered by the grant allow each tank to load separately with minimal cross contamination and fully automates this function (blue and khaki auto valves shown).

Source: New Leaf Biofuel, LLC

CHAPTER 6:
Operations

Terminal Users

There are four users of the terminal as follows:

- New Leaf Biofuel – the terminal owner who also occupies a tank supplying biodiesel for blending
- SC Fuels – part of the Pilot Travel Center company supplying blends directly to truck fueling stations in the vicinity. SC Fuels occupies one of the renewable diesel tanks.
- Chevron REG – occupies both a biodiesel and renewable diesel tank for their own branded fuels and blends.
- Saint Bernard Renewables – commenced operations in July in the remaining renewable diesel tank.

In addition, trials are underway with an additional terminal user to increase biodiesel throughput in the New Leaf storage tank.

Throughput Volumes

The upgraded terminal is fully automated. Figure 15 shows electrical and control systems including the new pump motor Variable Frequency Drives (VFDs) on the left and new switchboard on the right.

Figure 15: Electrical and control systems

Source: New Leaf Biofuel, LLC

Users download upcoming transactions into the GVM interface, drivers enter the transaction code and are loaded with the correct material or blend automatically. Bills of Lading (BOL) and other load data are sent to users, customers, and carriers immediately on the completion of a load. Using the BQ9000 (see glossary) protocol for biodiesel terminals, the appropriate Certificate of Analysis (COA) is calculated and sent as railcars are added to the tank.

Throughput volumes through October 2024 are shown in Table 3. These data show strong growth in volume to the equivalent of over 60 million gallons per year in the first 9 months of operations. The terminal expects to exceed the 3-year grant application target during year 2.

Table 2: Renewable Fuel Volumes During Initial 12 Month Operations

Month	Throughput	Annualized Rate
Jan	912,666	10,951,992
Feb	1,435,917	17,231,004
Mar	2,927,599	35,131,188
Apr	3,244,053	38,928,636
May	2,793,250	33,519,000
Jun	3,078,822	36,945,864
Jul	3,873,131	46,477,572
Aug	4,217,231	50,606,772
Sep	4,192,143	50,305,716
Oct	5,282,514	63,390,168
Nov	4,699,173	56,390,076
Dec	4,704,582	56,454,984

Terminal Operations Employees

The terminal operations provide the following long-term employment in Table 2. This project directly creates 6 full-time long-term jobs including one on-site fuel terminal manager, four terminal operators, and one logistics manager.

Table 3: Terminal Operations Jobs

Position	Duties	% this project
On Site Fuel Terminal Manager	Day-to-day operations planning, inventory management, rail movement planning	100%
Four Terminal Operators	24/7 coverage supporting railcar unloading and truck loading	100%
On Site Rail Scheduler	Rail movement requests with railroads	50%
Logistics Manager	Longer term movement and demand planning, KPIs, terminal user liaison	100%
Accounting	All movement and sales accounting for terminal	50%
Executive Management	Customer contracts, pricing, long-term planning, profitability management	50%

CHAPTER 7: Conclusion

This project was successfully completed and is performing well ahead of target. The 3-year volume objectives of the grant funding are already in sight, the terminal is proven operationally, and was completed on budget within the project timeline with significant upgrades in capability.

New Leaf selected well-qualified providers and designers for the project delivery. The project was on time even with significant upgrades to piping systems, automation, and site access. New Leaf had its own project leadership team closely supervise project execution and cost performance to ensure physical, financial, and operational tasks were all coordinated for the target start date.

Other key factors that ensured the success of the project include:

- Comprehensive planning and approvals process
- Advanced preparation for operational, safety, and compliance processes
- Commitment to current technology and automation
- Rapid adaptation to meet customer needs
- A strong reputation and network in the established renewable fuels industry

Despite this success, the project did face several challenges which are useful to consider.

Challenges

The project encountered prolonged delays due to COVID-19, supply chain disruptions, loss of a founding partner, and necessary changes to design. Key lessons learned were:

- Make certain of partnership commitments at an early stage and ensure these are as firm as possible.
- Always have a fallback plan of uncontrolled external delays and change in financial commitments.
- Ensure design matches or design flexibility to adapt to market conditions.

The project was originally based on a single vertically integrated market supplier but with their withdrawal as an active project partner New Leaf was able to add two new entrants to this market to address the strong regional market demand for higher biofuel blends. Both new participants are also upstream producers and suppliers of biofuels. This wider participant base also provides the potential for peak volumes at the terminals to well exceed the original targets with greater downstream market access. New Leaf is still in trials with additional suppliers to increase biodiesel volumes through the terminal.

Sustainability

The project was successful in its financial and operational sustainability and will support throughput volumes in excess of the original goals. The 3-year operational target of the grant proposal is likely to be exceeded in only the second year of operations.

During the project, New Leaf acquired a strong customer group in addition to New Leaf's own biofuels trading activities. These include SC Fuels (now part of the Pilot Travel Center group), Chevron Renewable Energy Group (a fully integrated producer, distributor, and retailer of renewable fuels), and Saint Bernard Renewables (a renewables producer and marketer). All parties are highly motivated to increase renewable fuels availability and uptake in southern California.

The long-term outcomes for the terminal are increasing renewable fuel volumes in southern California and the accompanying climate and health benefits. Accordingly, the terminal provides a high efficiency, customizable solution and the ability to adapt to a mix of customer needs. The combination of rail expertise in MHX and fuel expertise in New Leaf gives an edge over competitors and despite increasing competition, new potential customers continue to make contact.

GLOSSARY

BILL OF LADING (BOL)—A document required for transportation of fuels specifying the volume, weight, volume per tanker compartment, fuel type, and hazard classification for all fuel tankers loaded at the terminal. BOLs are also communicated electronically as documents and data for recipient invoicing and inventory management.

BQ9000—An accreditation program for biodiesel fuels managed by the National Biodiesel Accreditation Commission. This is a voluntary program and has specific programs for sampling and verification testing of storage tanks containing biodiesel from different sources and providing a representative Certificate of Analysis.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (Caltrans)—Responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries.

CALIFORNIA ENERGY COMMISSION (CEC)—The state agency established by the Warren-Alquist State Energy Resources Conservation and Development Act in 1974 (Public Resources Code, Sections 25000 et seq.) responsible for energy policy. The Energy Commission's five major areas of responsibilities are:

1. Forecasting future statewide energy needs
2. Licensing power plants sufficient to meet those needs
3. Promoting energy conservation and efficiency measures
4. Developing renewable and alternative energy resources, including providing assistance to develop clean transportation fuels
5. Planning for and directing state response to energy emergencies.

CERTIFICATE OF ANALYSIS (COA)—A document confirming the composition of fuels loaded at the terminal and their compliance with ASTM and other Federal and State standards for transportation fuels.

VARIABLE FREQUENCY DRIVE (VFD)—An electrical device that controls electric motor rotation speed by varying the frequency of alternating current supplied to the motor.