Clean Energy Fuels Corp. Sustainability Report 2016

Clean Energy®

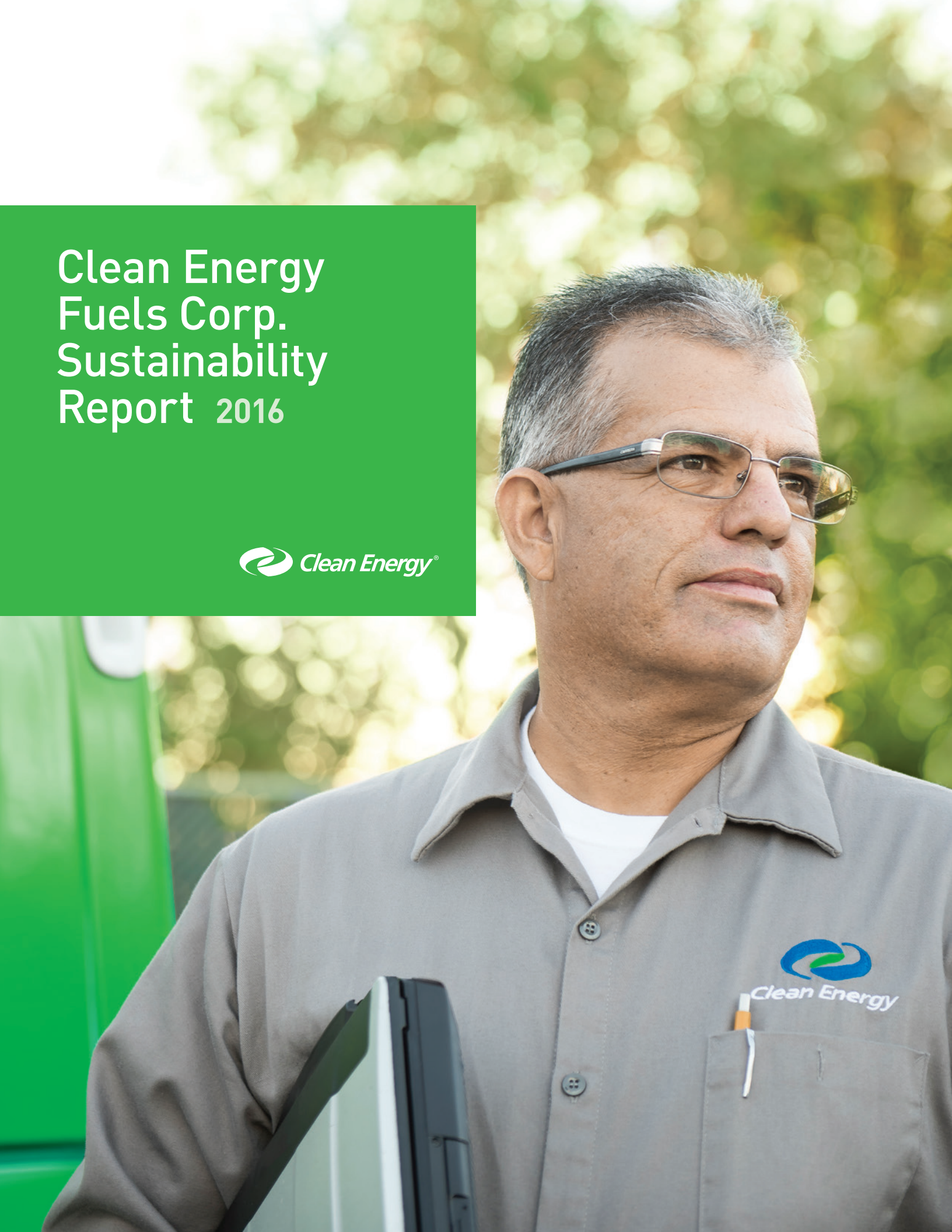


Table of Contents

CELEBRATING 20 YEARS Clean Energy®

Introduction from the CEO 1.1

"We are devoted to providing our customers the most reliable and professional services while growing value to all our stakeholders."

Natural gas as a transportation fuel is the best solution to removing toxic diesel emissions from our highways, roads and communities. Uniquely affordable and abundant here in the United States, natural gas helps businesses, municipalities and states reach their emissions reduction goals, and that is what drives us to be the leader in natural gas transportation fueling. We are devoted to providing our customers the most reliable and professional services while growing value to all our stakeholders.

This year we are celebrating our 20th year of business, and while we are very proud of how far we've come, we're even more enthusiastic about our future. And part of that future is our re-emphasis on something that we've always believed in, and that is incorporating sustainable practices across our entire organization. We are a company who helps every one of our customers increase their sustainability by the clean fuel we provide, and we also believe in integrating practices that lessen our own impact on future generations.

As the largest builder of natural gas fueling stations in North America, we have worked to incorporate industry-leading practices such as our Leak Detection and Repair (LDAR) program which uses gas-imaging cameras and remote monitoring so we can prevent methane leaks long before they occur.

Additionally, we remain 100% committed to corporate citizenry. We conduct business in communities where air quality is often considered more polluted than most, and we understand our mission is to provide services that will make that community a better place. And not just by the stations we build or the dirty diesel gas we replace, but also by our employees, who embrace those communities as if they were their own. We believe wholeheartedly in the enormous sustainability benefits our services provide, but also in our steadfast commitment to being the best business partner for every one of our clients.

In 2013, we became the first company to begin commercially distributing a non-fossil fuel renewable natural gas. This fuel, which we call **Redeem,™** is methane produced from sources such as landfills, dairy farms and anaerobic digesters. We capture, clean and push this renewable natural gas, which offers a 70% reduction in greenhouse gas emissions over diesel, back into the natural gas pipeline for our customer's exclusive use. Currently 100% of our natural gas sold in California is **Redeem** and we have now begun distributing it to multiple other states.

And this year, as part of our continued focus on sustainability, I am proud to introduce our 2016 *Clean Energy Fuels Corp. Sustainability Report*. Throughout our 20-year history, we've always taken a hard look at our business model to identify strengths and weaknesses. And now, in this report, you will see that we have identified some areas to be proud of and some areas where we can do better. We have set ambitious targets and believe with the commitment and passion of our employees, our customers, and our communities; we can undoubtedly achieve them.

Andrew J. Littlefair
President and Chief Executive Officer

About Clean Energy 1.3

In February of 2012, legendary energy magnet T. Boone Pickens stood on stage at a TED Talk and gave a 20-minute passionate speech about the importance of increasing the nation's use of natural gas and reducing its reliance on foreign oil. Doing so would both protect our national security and protect our environment.

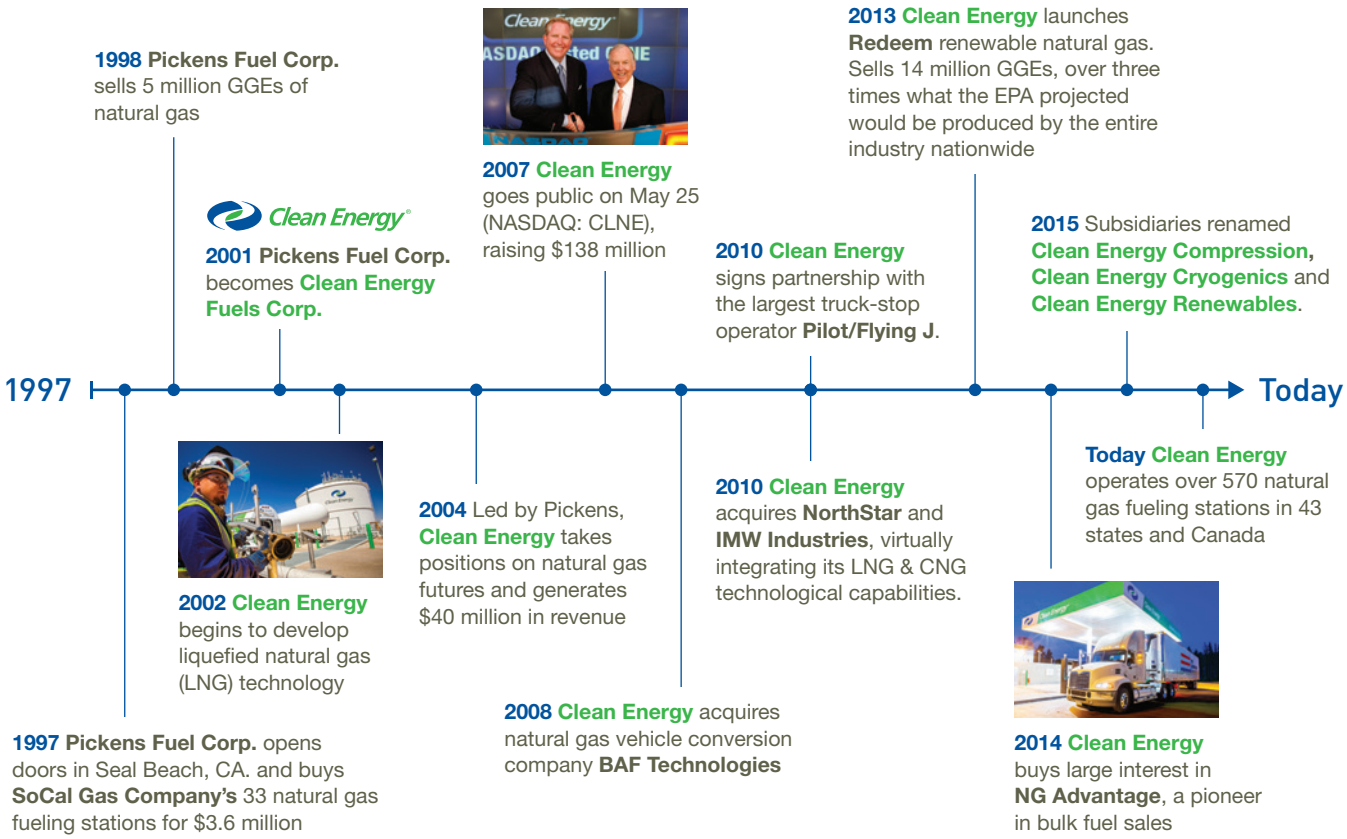
This was somewhat surprising coming from the founder one of the largest independent oil companies in the world, Mesa Petroleum.

However, one only has to look at Boone's history to see that natural gas and his commitment to the environment has been a part of his plan for quite some time. Even before 1991, when he became chairman of the Natural Gas Vehicle Coalition, Boone was advocating that natural gas was a cheaper, cleaner transportation fuel. Understanding the increasing impact of OPEC on the volatility of oil prices, Boone recruited his Vice President of Public Affairs at Mesa, Andrew J. Littlefair, and the two spun off a new natural gas fueling company named Pickens Fuel Corp. The company began with three natural gas fueling stations, 1 employee and a single repair truck and opened offices in Seal Beach, California in 1997.

Today, 20-years later, what was then Pickens Fuel Corporation is now **Clean Energy Fuels Corp.**, North America's largest provider of natural gas fueling services. With over 570 private and public fueling stations in 43 states and Canada, **Clean Energy** designs, builds, owns and operates liquefied natural gas (LNG) and compressed natural gas (CNG) stations for hundreds of fleets in the refuse, transit and heavy-duty trucking industries. Customers who have as much belief in natural gas as the solution to reducing fleet emissions as we do. Many of our customers are leaders in the sectors and continue to add natural gas vehicles, build stations and replace millions of gallons of diesel with natural gas in an effort to be better corporate citizens. Examples include heavy-duty truck customers such as FedEx Freight and UPS; transit agency Los Angeles County Metropolitan Transit Authority, which recently signed the largest fueling deal with **Clean Energy** for the use of our **Redeem** brand of renewable natural gas (RNG); and refuse leaders Waste Management and Republic Services which both fuel with **Redeem**, offering them the lowest carbon-intensity score of any fossil fuel.

Through the 20 years of leadership and vision provided by Boone and Andrew, and through our employees and our principles, we are hopeful for the future and proud of the contributions we've made to sustainable practices. We are encouraged by our long-time customers that continue to switch their fuel from diesel to natural gas. And we're excited to continue to grow, as more and more new fleets realize the benefits of domestically-produced, clean-burning, natural gas.

Company History



Why Natural Gas? 1.2

The Clean Energy Solution

Clean. Abundant. Domestic. Affordable. Safe. Reliable. Natural gas, the cleanest-burning motor fuel, is the vital energy source of our lower carbon future. With a growing number of cleaner fuel alternatives for vehicles today, natural gas is the best choice for powering the transportation industry due to its clean, cost-efficient, domestically abundant, safe and consistently reliable properties.

Cleaner

Greenhouse gas emissions can be reduced by up to 27% when fueling with traditional natural gas or 70% when using **Clean Energy's Redeem™** branded renewable natural gas (RNG) (**Clean Energy**, 2017b) in place of diesel. Natural gas has a lower carbon footprint and produces less carbon dioxide emissions when burned. The *California Air Resources Board* (CARB) has concluded that a natural gas vehicle emits less greenhouse gas emissions than a comparable gasoline or diesel-fueled vehicle on a well-to-wheel basis (**Clean Energy**, 2016b). Additionally, a recent study of alternative fuel vehicle technology concluded that natural gas heavy-duty vehicles fueled by renewable natural gas and using the most current engine technology, performed equivalent to electric vehicles powered by the current grid with respect to greenhouse gas emissions (GNA, 2016).

Domestic & Plentiful Supply

98% of the natural gas used in North America is produced in the United States (NGVA, 2015). Technological advances in natural gas drilling and production have unlocked vast natural gas reserves in the United States. The U.S. produces the highest volume of natural gas in the world, with proven, abundant, and growing reserves across the country.

Less Expensive

Natural gas fuel prices are more stable and affordable than diesel or gasoline. Due to the abundance of natural gas, its cost in the United States is significantly less than that of crude oil on an energy-equivalent basis. Based on projections from the U.S. Energy Information Administration, natural gas will remain cheaper than gasoline and diesel for the foreseeable future (**Clean Energy**. 2016b).

National Security

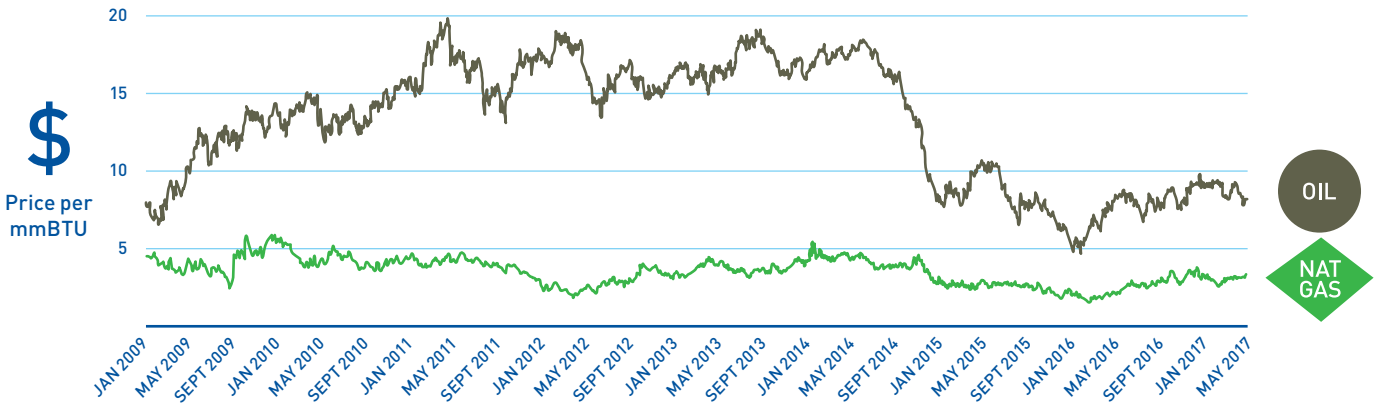
Keeping America's natural gas safely flowing through the 2.2-million-mile pipeline is vital to our national security. According to the American Gas Association (AGA), the nation's natural gas energy utilities work closely with the Department of Homeland Security (DHS), Department of Energy, Department of Transportation, Federal Energy Regulatory Commission, Congress, and National Association of Regulatory Utility Commissioners (NARUC) to examine their security practices by performing vulnerability assessments and making appropriate enhancements to their physical and cybersecurity programs. Such enhancements include supplementing current emergency plans with terrorist risk elements, strengthening physical barriers, tightening control access, adjusting frequency of patrols, and confirming response and recovery actions with local law and emergency officials. Utilities monitor and respond to any potential threats to the industry.

Emergency Preparedness

Natural gas is transported in two ways: CNG via underground pipelines and LNG on tanker trucks similar to gasoline or diesel. Many of our customers choose CNG as their preferred fueling option, in particular in the northeast, where weather can impact operations. Since CNG is transported through an extensive 2.2 million-mile underground natural gas delivery system that has an outstanding safety record, it is not subject to road closures or other operational constraints that can arise in inclement weather, allowing operations to continue at the most critical times.

When natural disasters strike, **Clean Energy** has a formal Emergency Preparedness and Response Plan to safely operate through emergency conditions. When Superstorm Sandy hit the Northeast, our disaster preparedness was highly praised by our customers. We staged a shutdown of the equipment, kept it safe from the storm, and were on hand to bring the stations online. As a result, all of our 45 Northeast stations that were accessible were online within 20 hours after the storm, and we notified customers of our progress throughout this event. Our CNG fleet customers throughout New York and New England were also able to do their jobs as active first responders; clearing the roads and helping stranded people get to safety.

Cost of Oil vs. Natural Gas



Data provided by the U.S. Energy Information Administration.

Subsidiaries 1.3.2

The **Clean Energy** portfolio includes both majority and wholly-owned subsidiaries that allow us greater geographic and technological range to deliver natural gas solutions worldwide. Our subsidiaries include:

Clean Energy® RENEWABLES

Clean Energy Renewables produces, markets and distributes biomethane, with owned and operated processing facilities in Tennessee and Michigan and is a leading marketer of renewable natural gas (RNG), including **Redeem**, the first RNG for commercial vehicles.

Clean Energy® COMPRESSION

Clean Energy Compression is North America's largest sole manufacturer of non-lubricated gas compressors and related technologies and sells quality compressors in over 25 countries.

Clean Energy® CRYOGENICS

Clean Energy Cryogenics is the leading engineering and construction team responsible for building over 70% of the United States network of turnkey LNG/LCNG fleet fueling stations.

NG ADVANTAGE™ A Clean Energy™ Company

NG Advantage™ is the nation's leading provider of "virtual pipeline" services for industrial energy users who do not have access to natural gas pipelines. NG Advantage uses high-capacity tube trailers to deliver CNG for non-vehicle purposes, such as hospitals, food processors, and manufacturers.

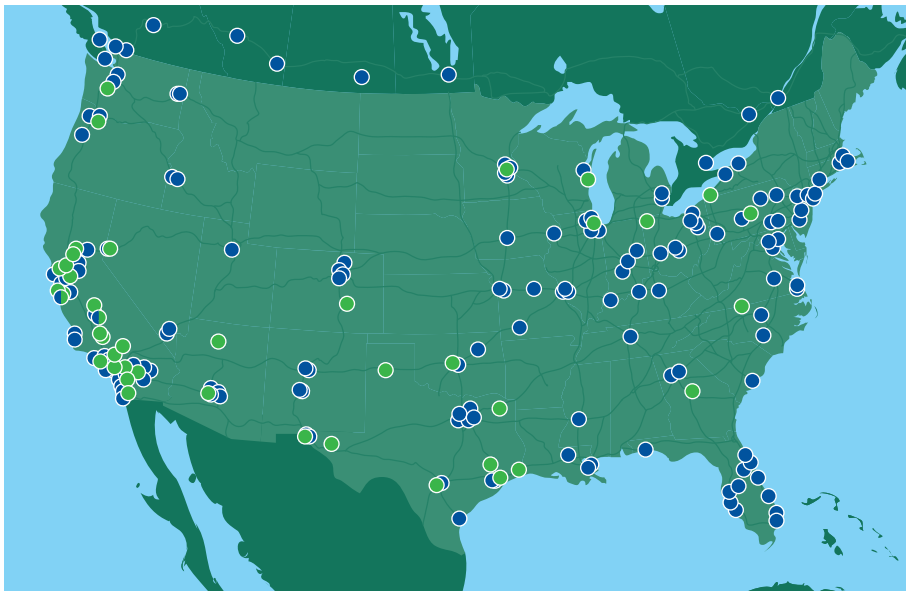
A complete list of **Clean Energy** subsidiaries can be found in Appendix A.

Scale 1.3.1

Metrics related to company scale.

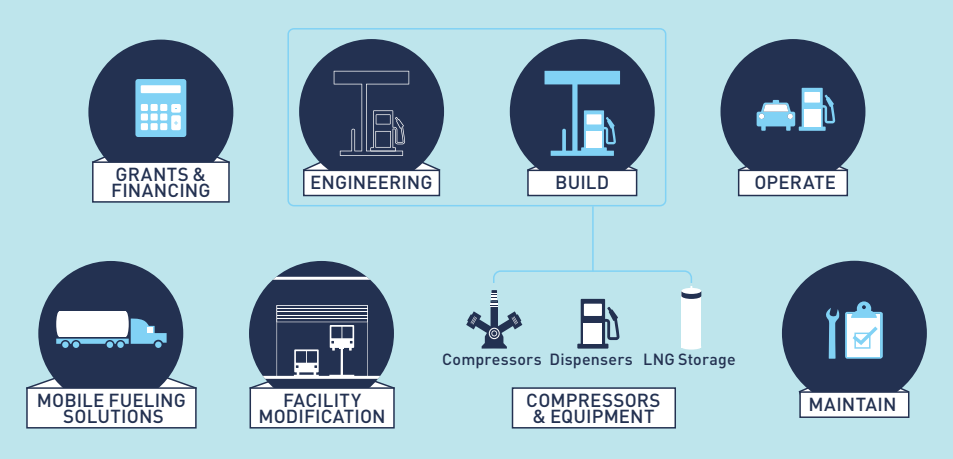
Corporate Headquarters	4675 MacArthur Court, Suite 800 Newport Beach, California 92660
Global Employees	832
Gasoline Gallon Equivalents (GGEs) Delivered in 2016	329 million
LNG Liquefaction Plants	Willis, Texas Boron, California
RNG Production Facilities	North Shelby, Tennessee Canton, Michigan
Fueling Stations (own, operate, or supply)	over 570 (42 States in U.S., 4 Provinces in Canada)
Fleet Customers	nearly 1,000
Natural Gas Vehicles Fueled	over 45,000
Heavy-Duty Trucks Fueled	over 3,000
Airports Serviced	nearly 40
Refuse Vehicles Fueled	nearly 10,000
Transit Vehicles Fueled	nearly 9,000

Clean Energy Station Locations



CNG Station LNG Station CNG/LNG Station

Products & Services 1.3.3



Clean Energy offers a comprehensive portfolio of premium fuel products and commercial services for existing natural gas fleets and new fleets converting from diesel or gasoline. Our services include designing, building, operating and maintaining time-fill and fast-fill CNG, LNG and CNG/LNG combination fueling stations.

Also, our team provides in-depth industry knowledge, expertise and critical products and services across many natural gas business sectors. The following is a comprehensive list of the products and services **Clean Energy** provides:

CNG Sales

CNG is natural gas fuel that has been compressed to approximately 3,600 pounds per square inch (PSI). It is a naturally odorless, colorless, and gaseous fuel. CNG is inexpensive to produce and store and is an ideal fuel source for scalable fleets. We obtain natural gas from local utilities or third-party marketers, then compress it, store it, and dispense it to customer vehicles. Before compression, our CNG is the same natural gas that is used for heating and cooking in homes and industries across the United States.

LNG Production & Sales

Liquefied natural gas (LNG) is natural gas cooled to -264°F, condensed into a liquid. LNG is naturally clear, non-toxic, and odorless. LNG tanks are fuel efficient and light. Less tank weight means more fuel storage, making LNG ideal for vehicles that have limited access to fueling stations. We obtain LNG from our liquefaction plants, located near Houston, Texas and Boron, California, as well as from 25 third-party suppliers. In 2016, 56% of our LNG was produced at our plants. We also sell LNG on a bulk basis to fleet customers.

RNG Production & Sales

Renewable natural gas (RNG) is natural gas collected from organic waste streams such as landfills, animal waste digesters, and wastewater treatment plants. We source RNG through our production plants, located at Republic Services landfills in Canton, Michigan and North Shelby, Tennessee, as well as through third-party producers. We sell most of the RNG we produce through our natural gas fueling infrastructure for use as a vehicle fuel. In addition, we purchase RNG from third-party producers and sell that RNG for vehicle fuel use through our fueling infrastructure. The RNG we sell for vehicle fuel is distributed under the **Clean Energy** branded name **Redeem**. All 135 owned and operated California fueling stations are supplied with 100% **Redeem**.

Note: In February 2017, we entered into an agreement to sell the assets related to our existing RNG production business, including our two existing RNG production facilities and our interest in the two new RNG production facilities in development, while maintaining rights to the volume. This sale closed on March 31, 2017. Going forward, we will continue to procure and sell RNG as **Redeem**.

Natural Gas Fueling Compressors and LNG Equipment

Clean Energy is the only fuel supplier that offers in-house compression technology and LNG equipment. By being an equipment manufacturer, **Clean Energy** is vertically integrated from station conception to operation. We devote our extensive resources to ensure that our customers meet daily rollout while guaranteeing safe and reliable fueling equipment.

In-House Engineering, Construction, and Permitting

In recent years, **Clean Energy** has expanded our internal engineering and construction capacities by adding engineers, internal permitting specialists and project managers. The team has the knowledge and qualifications needed to design and build a natural gas fueling stations that meet our customer's needs while incorporating best practices and ensuring code compliance.

Station Operation and Maintenance

Station maintenance begins with local, qualified, trained and company-employed service technicians that can respond to our customer's requirements at any time. We operate and maintain the most extensive network of private and public natural gas fueling stations in North America with a team of more than 150 fully-trained service technicians. Daily we inspect and service more than 500 compressors, dryers, motors, instrumentation, piping/valves, storage vessels, safety equipment and dispensers at natural gas fueling stations across North America.

Grant Funding

For many years, **Clean Energy** has been assisting customers apply for grants and incentive funding to help reduce the acquisition cost of natural gas vehicles. Our dedicated in-house staff has the knowledge, resources, and experience to help customers with the application process, as well as the ongoing reporting requirements. To date, our team has secured over $300 million in funding from a variety of Federal, State and Local Agencies.

Vehicle Financing

We work with our customers to help facilitate their vehicle acquisition and transition to natural gas. This includes assisting with vehicle selection and financing, as well as aligning the vehicle purchase with the infrastructure development timeline, ensuring customers maximize returns through fuel savings as more vehicles are deployed. Our approach is designed to give our customers the power to purchase vehicles that meet their specific requirements.

Markets 1.3.4

Clean Energy provides comprehensive natural gas fueling and services in a variety of markets, including:

Fleet Services

Vehicle fleets serving airports in the United States, including airport delivery vehicles, rental car, and parking passenger shuttles, and taxis, consume an aggregate of approximately two billion gallons of fuel per year. Because of this, many U.S. airports face air quality challenges and are under regulatory directives and political pressure to reduce local air pollution. Many airports are addressing tailpipe emissions by switching their fleet operations to natural gas.

Refuse

Nearly 180,000 refuse route trucks in the United States collect and haul refuse and recyclables, consuming approximately two billion gallons of fuel per year. We estimate that approximately 55% of new refuse trucks purchased in 2016 operated on natural gas, up from 3% of new refuse trucks bought in 2008. Over the past decade, refuse haulers have recognized the benefits that cleaner, quieter CNG vehicles provide in the neighborhoods where their customers live and work, as well as the economic benefits of making the switch from diesel to CNG.

Transit Agencies

Over 71,000 municipal transit buses operate in the United States. In many areas, like the South Coast Air Quality Management District in Southern California, increasingly stringent air emissions standards have limited the fueling options available to public transit operators. Transit agencies typically fuel at a central location and use approximately 1.5 billion gallons of fuel per year. Transit agencies were early adopters of natural gas vehicles. Over 25% of existing transit buses and over 35% of new transit buses on order are natural gas.

Trucking

Heavy-duty trucking presents one of the largest market opportunities for natural gas fuel adoption. Annually, the on-road trucking sector consumes 30 billion gallons of diesel fuel and purchases up to 200,000 heavy-duty trucks. Because these high-mileage vehicles consume large amounts of fuel, they can derive substantial benefits from the lower cost of natural gas—while reducing tailpipe emissions significantly. Many well-known shippers, manufacturers, retailers, and other truck fleet operators have adopted natural-gas-fueled trucks to move their freight.

Stakeholders 1.4

Clean Energy is committed to active, collaborative stakeholder engagement. We identify our stakeholders as those groups upon whom our success depends, as well as those who are affected by our business. Our stakeholders begin with our shareholders and exist across our supply chain of upstream energy production and downstream fueling infrastructure from the communities they impact to the employees in our offices.

We view active engagement as the foundation of responsible corporate citizenship. The following list introduces our stakeholders, along with typical forms of engagement and their priorities.

Stakeholders

STAKEHOLDER	EXAMPLES OF ENGAGEMENT	KEY TOPICS
Employees	Clean Connection, Meetings, Training Sessions	Safety, Health & Wellness, Career Development, Benefits, Diversity, Tower of Success
Customers	Surveys, Growth Strategies, Account Management	Affordability, Reliability, Product Safety, Air Quality
Shareholders	Annual Report, Quarterly/ Annual Disclosures	Profit, Sustainability, Governance Practices, Policy Engagement
Local Communities	Engagement Program, Community Events, Sponsorships	Air Quality, Economic Development
Regulatory Agencies / Government	Inspections, Facility Audits, Performance Disclosures	Environmental Impact, Taxes
Non-Governmental Organizations	Community Meetings	Climate Change, Environmental Impact, Air Quality
Partners	Executive Briefings, Quarterly/ Annual Disclosures	Profit, Government Policy, Sustainability, Natural Gas Technology

Material Issues 1.5

In preparing our 2016 report, we reviewed feedback received from stakeholders throughout the year. Our regular outreach includes targeted customer surveys, community meetings, industry conferences, public policy committees, and shareholder meetings. We held discussion sessions with our employees to ask what issues were important to them. The questions, input, and insight we received from our stakeholders throughout 2016 informed the material issues selected for this publication.

Our 2016 Sustainability Report is organized by material issues, from global concerns to our impact at the local level.

- Climate Change
- Environment
- Profit & Stability
- Citizenship

Material Issue Selection Process

ENGAGE

Clean Energy listens. We maintain dialogues with our stakeholders and understand what is important to them.

ASSESS

From addressing changing climate to maintaining a sustainable business, we consider our stakeholders' diverse priorities and the significance of their economic, social, and environmental impacts.

VALIDATE

We validate issue selection with our leadership, ensuring they align with our principal risks, and select material issues of the highest priority.

Climate Change & Air Quality

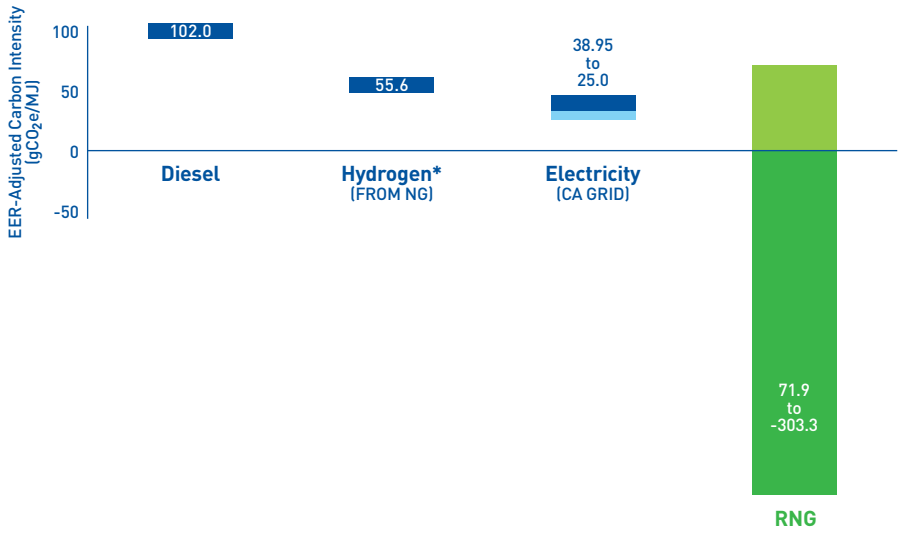
Climate Change & Air Quality 2.0

Headlined by the ratification of the Paris Agreement, global climate change mitigation action gathered speed in 2016. Policy initiatives to tackle climate change flourished across the globe, from the scale of small business agreements to international accords. Despite this progress, 2016 was the warmest year on modern record, the third year in a row to set a new record for global average surface temperatures (NASA, 2017). The long-term warming trend remains clear.

Combusting natural gas produces 27% fewer CO_2 emissions than diesel fuel on an energy equivalent basis.*

This trend is not lost on **Clean Energy**. We share the concerns of our stakeholders, governments, and the public about the risks of climate change and recognize that the use of fossil fuels contributes to the rising greenhouse gas content in the earth's atmosphere. **Clean Energy** contributes to the reduction of global greenhouse gas emissions with every vehicle we fuel. Natural gas is one of the cleanest burning alternative transportation fuels available today and offers significant greenhouse gas emissions benefits over conventional fossil fuels, from tailpipe to life cycle usage.

Carbon Intensity Rating of Key Transportation Fuels



*Includes 33% renewable feedstock. Hydrogen by steam-methane reformation.

Redeem RNG in heavy-duty vehicles has 70% less greenhouse gas emissions as compared to diesel on a wells-to-wheels basis.**

In 2015, the United States emitted the equivalent of 6,587 million metric tons of carbon dioxide (CO_2). More than a quarter of these greenhouse gas emissions come from the transportation sector through the burning of fossil fuels in trucks, trains, ships, cars, and airplanes. The transportation sector is the second largest producer of greenhouse gasses in the United States. Only electricity generation produces more greenhouse gases (US EPA, 2015). **Clean Energy** recognizes that addressing greenhouse gas emissions from vehicles is critical to the United States' ability to reduce its impact on climate. In 2016, over 82% of transportation sector CO_2 emissions in the United States was produced by diesel- and gasoline-fueled vehicles (US EIA, 2017b). Natural gas vehicles are a proven technology that can provide significant greenhouse gas emission reduction now. **Clean Energy** knows that we can drive the transition to a lower carbon future with cleaner, more responsible fuels.

*https://www.eia.gov/tools/faqs/faq.php?id=73&t=11

**https://redeem.cleanenergyfuels.com/

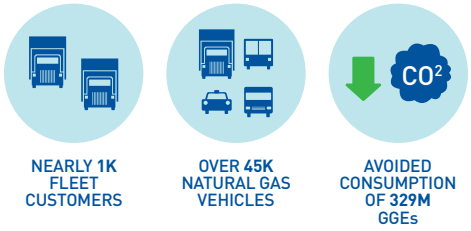
Greenhouse Gas Emission Reductions 2.1

In our first 20 years, **Clean Energy** has grown to be the premier provider of natural gas products and services for the transportation industry. Each day our nearly 1,000 customers are fueling more than 45,000 vehicles with clean-burning natural gas. Climate change is a primary concern for many of these customers. Our customers strive to be good environmental citizens by reducing greenhouse gas emissions associated with their operations. **Clean Energy** is proud to offer transportation fuels that help our customers meet their greenhouse gas emission reduction goals.

To support our customer's need in 2016, we delivered the natural gas equivalent of 329 million gallons of gasoline and diesel. That's enough fuel to drive an 18-wheeler all the way to the planet Mars and nearly back again. One of the many benefits of natural gas is that it is a less intense fuel from a greenhouse gas perspective. Natural gas vehicles emit less CO_2 as compared to an equivalent amount of fuel burned by diesel or gasoline vehicles. This 'tailpipe' benefit is due to the chemical composition of natural gas as compared to gasoline and diesel. Therefore, every time we help our customers switch from gasoline or diesel to natural gas vehicles we are reducing their carbon footprint

Because of the tailpipe greenhouse gas benefits of natural gas, our displacement of 329 million gallons of gasoline and diesel resulted in nearly 650,000 metric tons of CO_2 staying out of our atmosphere. That is equivalent to taking more than 136,000 cars off the road; planting 16.5 million trees; or diverting 230,000 tons of trash from a landfill. In addition to this 'tailpipe' benefit, our customers can achieve even greater greenhouse gas emissions when they fuel their natural gas vehicles with **Clean Energy's** RNG. The lifecycle benefit of RNG, often referred to as 'well-to-wheels', is discussed in more detail in the following section. By switching to cleaner-burning natural gas our customers are doing their part to mitigate climate change.

Clean Energy's is proud of our contribution to reducing not only our own but our customer's carbon footprint. This is our first Corporate Sustainability Report and the first time tracking our comprehensive greenhouse gas emissions and reductions. In the coming years, as we update this report, we will continue to track and report our carbon footprint and will use those metrics to establish a formal greenhouse gas reduction goal.



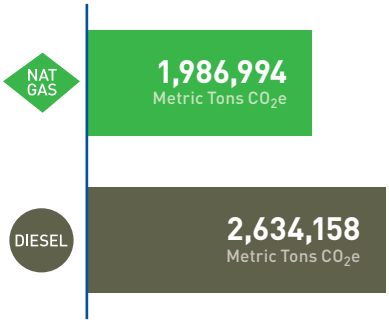
NEARLY **1K** FLEET CUSTOMERS

OVER **45K** NATURAL GAS VEHICLES

AVOIDED CONSUMPTION OF **329M** GGEs

Natural Gas vs. Diesel

2016 Greenhouse Gas Tailpipe Emission Comparison



647,164
METRIC TONS

Total greenhouse gas emissions avoided in 2016 by using **Clean Energy** natural gas fuel instead of diesel or gasoline.

THAT'S LIKE

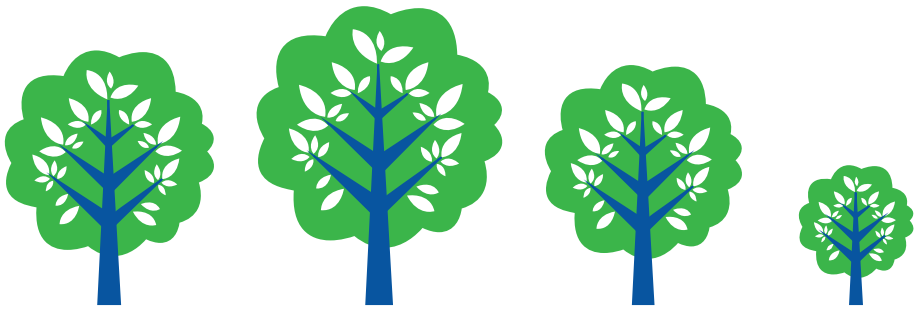
REMOVING **136,000+** CARS OFF THE ROAD FOR ONE YEAR

PLANTING **16,500,000+** TREES

RECYCLING **230,000+** TONS OF WASTE

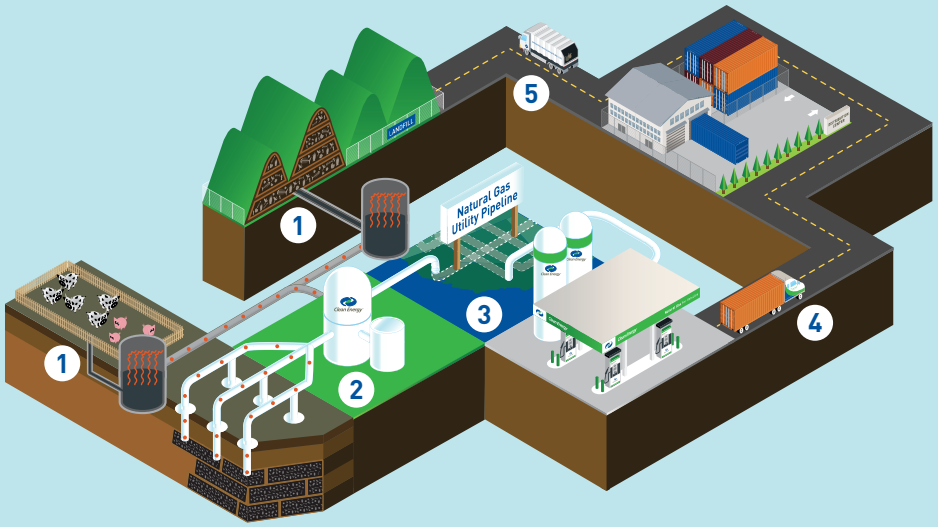
762,266
ACRES OF FOREST

Clean Energy's 2016 reductions in greenhouse gas emissions is on par with planting a forest roughly the size of **Los Angeles, New York, Dallas** and **Orlando** combined.



DALLAS LOS ANGELES NEW YORK ORLANDO

Redeem 2.2



HOW IS **REDEEM** MADE?

1. CAPTURE & EXTRACT
2. PROCESS & PURIFY
3. ENTER INTERSTATE FUEL PIPELINE
4. REDUCING TRANSPORTATION EMISSIONS
5. FUELING A GREENER SUPPLY CHAIN

Clean Energy's Redeem is the first commercially available renewable natural gas fuel. Renewable natural gas is identical to conventional natural gas in every way except how it is produced at the source. **Redeem** is produced with biogenic methane, which is naturally generated by the decomposition of organic waste at landfills, wastewater treatment plants, as well as biomass, food and agricultural waste sources, whereas conventional natural gas comes from drilling operations. The **Clean Energy Redeem** product offers life-cycle carbon emissions reductions up to 70% when displacing the use of gasoline or diesel (Clean Energy, 2017b).

Redeem is an exact replacement transportation fuel for fossil CNG and LNG with a significant and potentially negative carbon footprint, depending on the feedstock. It can power any natural gas engine—whether in an eighteen-wheeler to a taxi cab—and meet 100 percent of its fueling requirements while providing even greater carbon reduction benefits than our standard fuel products.

According to California Air Resource Board estimates, **Redeem** can provide a up to **70% reduction** in carbon emissions when displacing diesel or gasoline (**Clean Energy**, 2016a).

In addition to the carbon reduction benefits produced, every gallon of **Redeem** consumed provides additional emissions benefits by either capturing and converting atmosphere-bound greenhouse gas from organic waste sources or by offsetting criteria pollutants that would have resulted from flares.

Redeem was launched by **Clean Energy** in 2013, with 14 million GGEs delivered and consumed as a vehicle fuel, nearly triple the amount of cellulosic biofuel that the EPA projected would be produced by the entire industry nationwide.

Today, **Redeem** RNG fuels thousands of vehicles daily. In 2016, we sold over 58.6 million GGEs, and **Redeem** contributed to over 348,000 metric tons of greenhouse gas emissions reductions.

By switching to **Redeem**, a large fleet that consumes 1,000,000 gallons of gasoline per year can reduce their greenhouse gas emissions by **7,350 metric tons...** the equivalent of taking 1,553 passenger cars off the road.

SOLD **58.6M** GGEs

REDUCED GHG EMISSIONS BY **348,522** METRIC TONS

Air Quality Management 2.3

The market for natural gas vehicles was founded, in large part, on the need to improve air quality in urban areas. At the core of its appeal as a fuel source, natural gas offers reduced air pollutant emissions, relative to diesel or gasoline including the criteria air pollutants' carbon monoxide (CO), particulate matter (PM), and nitrous oxides (NO_x).

Addressing local air quality has been, and will continue to be, a key concern of many of our stakeholders, including customers, local communities, regulatory agencies, and non-governmental organizations (NGOs).

Clean Energy's industrial activities include natural gas compression and liquefaction, which may emit air pollutants. As such, we maintain comprehensive treatment measures to manage these emissions and protect ecosystems as well as the health of local communities in accordance with regulatory guidelines.

Additionally, natural gas-fueled vehicles are the best and most immediate and cost-effective solution for reducing the negative impacts of transportation emissions on local air quality. Today 63 percent of **Clean Energy's** owned vehicles are natural gas, with 92 percent of the operations and maintenance fleet powered by natural gas. As a company, we strive to use natural gas vehicles in our operations wherever feasible. By 2022, we are committed to fueling all **Clean Energy's** operations and maintenance and fleet vehicles with clean natural gas.

Methane Leak Mitigation 2.4

Natural gas is made up mostly of methane, which is a powerful greenhouse gas. While the use of natural gas as a fuel is conducive to the reduction of greenhouse gas emissions, uncontrolled methane leaks are a significant concern in the oil and gas industry. Methane leaks can occur at any stage of production, transportation, distribution or storage if containment practices are insufficient. In addition to contributing to atmospheric carbon, natural gas leaks may present explosion risks. As an issue of safety, environmental performance and profit, **Clean Energy** not only monitors potential sources of methane leaks and has controls in place to mitigate them, but also it strives to be an innovative industry leader. As such, **Clean Energy** has created their own expanded Leak Detection and Repair (LDAR) program, which it recently rolled out to its California stations. The refined LDAR implements routine inspections with advanced technology, such as gas-imaging cameras, to manage potential methane leaks for both regulatory and voluntary actions. **Clean Energy** will track the benefits of the expanded LDAR program and upon proven results will make a formal commitment to roll out to all its stations and make it available as a service offering to its operations and maintenance customers.

Air Pollutant Reductions

Near-zero emission natural gas engines produce 90% less NOx emissions than the current standards (GNA, 2016).

Exhaust emissions of natural gas vehicles, when compared to those of gasoline and diesel vehicles, offer these pollutant reductions (NGVA, 2015):

Carbon Monoxide (CO)	70–90%
Nitrous Oxides (NO_x)	75–90%
Non-Methane Organic Gas	50–75%

Environment

Environment 3.0

Clean Energy was founded on the principle of a more responsible, cleaner way to fuel vehicles. For two decades, **Clean Energy** has been committed to environmental leadership not only in reducing impacts of greenhouse gasses and criteria air pollutants. Many of **Clean Energy's** stations and customers operate in areas that are considered mild to severely polluted (airports, ports, landfills, wastewater treatment facilities, highways, etc.). By delivering a cleaner fuel to these areas, we have a direct impact on the health and lives of our customers and the communities they operate in.

Our potential to make an environmental impact does not stop with air quality. We are proactive in our management of environmental issues, including waste, water, and environmentally sensitive areas and many other facets. Protecting our local neighborhoods and communities is consistent with our founding principles and our responsibility as a leader in our industry. Our employees are not waiting for environmental problems to arise and then reacting. Instead, they are forging solutions to minimize environmental impacts before they occur. Much of our success over the first 20 years has been the result of our employees looking for better ways to run the business and service our customers. That drive for steady improvement has led to advances in how we can operate more efficiently with less waste, where we locate new stations and offices, and how we procure our natural gas with the least environmental impact possible.

Waste Minimization 3.1

Clean Energy has initiated a company-wide strategy to reduce paper usage at our offices and field locations. This resulted in equipping our field personnel with tablets for data tracking. Additionally, our office staff is committed to doing their part to minimize paper usage in our and have established a goal beginning in 2018 to track and report our annual paper usage across the company. We are confident that by 2022 we can reduce the amount of paper used by **Clean Energy** by 20 percent from our current level.

Water Conservation 3.2

Water is essential to produce energy, and energy is essential to the production of clean water. As a distributor of fuel products, we recognize the role water plays in the energy industry, as well as the importance of protecting water resources for the sake of environment and society. While our operations are not water-intensive relative to production of conventional fossil fuels, we are committed to responsible water use and conservation.

In all aspects of our operations, we are conscious of our impact on local watersheds. We review facility design in areas prone to flooding risks, and institute a policy of best practices outlined in our Health and Safety Program to minimize the potential for rain to contact hazardous materials. **Clean Energy** complies with all storm water management requirements and maintains appropriate infrastructure at all our facilities. Further, **Clean Energy** chooses its facility locations such that it does not make significant withdrawals of water from sensitive or threatened sources.

Hydraulic Fracturing 3.2.1

Today, more than two-thirds of natural gas production in the United States relies on hydraulically fractured wells. Fracking requires significant water usage. Although the water needs of fracking are small compared to processes such as power plant cooling, the process can strain water supplies in arid regions. RNG, on the other hand, is not a fossil fuel and is not sourced or produced using the same energy and water-intensive methods as fossil natural gas. As such, **Clean Energy** is committed to expanding its industry-leading deployment of RNG. Biogenically sourced RNG allows **Clean Energy** to deliver the same high-quality natural gas to our customers without the water use associated with hydraulic fracturing.

Sensitive Areas 3.3

Clean Energy takes all necessary steps to understand the potential impacts of our operations on sensitive and protected areas. We avoid operation in, or near, sensitive environments, and we act to mitigate potential impacts on biodiversity.

General Efficiency 3.4

Clean Energy continues to explore additional environmental measures to improve our efficiency and reduce our environmental footprint. Recently **Clean Energy** consolidated our headquarter operations from two separate buildings into one LEED™-certified building. This move has made it more efficient for our team to collaborate while simultaneously reducing our energy usage. Going forward, we have committed to contracting with office buildings that are LEED-certified.

Economics


7
3600
PSI
www.cleanenergyfuels.com
COMPRESSED NATURAL GAS
EMERGENCY SHUTDOWN
CNG
Clean Energy
www.cleanenergyfuels.com

Economics 4.0

Clean Energy creates sustainable brand value for our customers and shareholders through strong financial performance, which allows us to create and maintain jobs, invest in process improvement, and act to further reduce our environmental footprint. The following sections will highlight our final and economic contributions as well as technological advancements.

Economic Contributions 4.1

2016 was **Clean Energy's** most profitable year. In 2016, the company delivered 84 million gallons, a 7.4% increase over the fourth quarter of 2015. For the full year, **Clean Energy** delivered 329 million gallons, a 7% increase over the 308 million gallons we delivered in 2015. Fourth quarter revenue was $102 million, and for the full year 2016, revenue was $403 million, a 5% increase over 2015. Additional financial information can be found in our 10K (**Clean Energy**, 2016b).

Since **Clean Energy** first launched our **Redeem** renewable fuel business in our California stations in 2013, we have seen phenomenal sales growth. In 2016, we sold approximately 60 million gallons to customers like UPS, Republic Services, Ryder, Kroger and multiple transit agencies and we have expanded to multiple states.

KEY TRENDS

NAT GAS

24.1% increase in the amount of CNG, LNG and RNG GGEs we delivered from 2014 to 2016.

190.1% increase in the amount of Redeem vehicle fuel delivered, from 20.2 million GGEs in 2014 to 58.6 million GGEs in 2016.

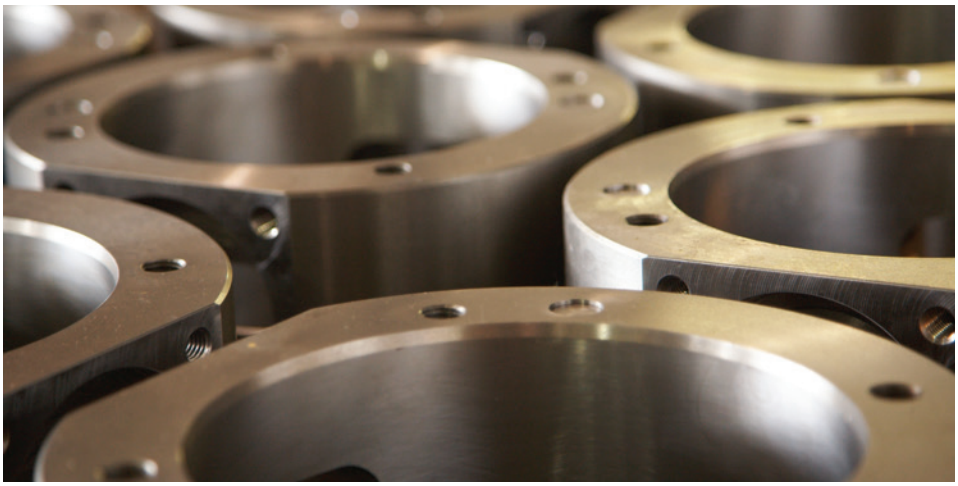
21.3% increase in the number of fueling stations owned, operated, maintained and/or supplied from over 470 as of January 1, 2014 to over 570 as of December 31, 2016.

Key Operating Data

Gasoline Gallon Equivalents (GGEs) delivered, millions

PRODUCT	2014	2015	2016
CNG	182.6	229.2	259.2
LNG	70.3	70.5	66.8
Redeem	20.2	50.0	58.6
Total	**265.1**	**308.5**	**329.0**

Technology 4.2



We are proud to support customers across the world with safer, more energy efficient technology. **Clean Energy** innovations that improve safety, increase efficiency, and reduce emissions from harmful pollutants make a lasting impact across the industries that use our products. Their implementation by our customers is a culmination of our efforts to work towards a cleaner, healthier and safer world. With our industry-leading experience, we view continual technological improvement as more than a business opportunity. It is our duty as a corporate citizen.

CleanCNG™ 4.2.1

In addition, our investment in manufacturing, engine, vehicle and station innovation, and exploring new technologies helps move the natural gas industry forward.

CleanCNG is the product of 35 years of leadership in the compressor industry and an example of our continued efforts in advancing the natural gas industry. **Clean Energy** technological innovations — from pump skids to odorant systems to natural gas station components — have continued to redefine the industry standard.

Supervisory Control and Data Acquisition (SCADA) and Predictive Maintenance 4.2.2

Clean Energy has implemented an advanced Supervisory Control and Data Acquisition (SCADA) software solution to monitor and capture key data from Natural Gas Equipment at our stations. This provides instant notification to the Operations Center when there is an alarm or event requiring attention from our service team. This is critical to respond to events expeditiously; however, it is still a reactive response solution.

Clean Energy is implementing a Predictive Maintenance (PdM) solution that will leverage the data collected from our SCADA system to generate predictive analytics that will provide advanced warning of equipment problems and failures before they occur.

Predictive analytics uses historical operational signatures for each asset and compares it to real-time operating data to detect subtle changes in equipment behavior well before traditional operational alarms, creating more time for analysis and corrective action.

Predictive Maintenance analytics solutions improve performance by providing early warning notification of equipment issues and potential failures. The benefits of PdM are:

- Improved profitability by extending equipment life
- Lengthening maintenance windows
- Increasing asset availability and uptime
- Other benefits are realized when considering the costs that “could have been,” including replacement equipment, lost productivity, additional man-hours, etc., when a major failure is avoided

CleanCNG

In June 2016, **Clean Energy** introduced the most advanced heavy-duty non-lubricated compressor for the natural gas fueling market. The **CleanCNG**, developed by our engineers in Chilliwack, British Columbia, incorporates revolutionary improvements in compressor design and intelligent engineering, resulting in ultra-low vibration and noise in a compressor that is unparalleled in scalability, parts commonality, and overall performance.

Supply Chain 4.3

Since the integration of suppliers, contractors, and local businesses are a core element of our business model, maintaining a sustainable supply chain is integral to our operations. **Clean Energy** ensures that our suppliers and contractors understand, and are aligned with, our corporate values and meet our standards of citizenship at every level of operation.

Suppliers 4.3.1

To ensure the quality of **Clean Energy** products, we foster strong, communicative relationships with our suppliers. We seek to gauge suppliers who adhere to best practices related to health, safety, environmental protection, and human and labor rights. Furthermore, we support their efforts for continuous improvement in these areas. We conduct comprehensive pre-qualification assessments and recognize that our selection of suppliers impacts our performance. Recently **Clean Energy** began requesting its fuel tanker haulers deliver our fuel via natural gas trucks. **Clean Energy** will track the percentage of natural gas trucks the fuel tanker fleet is using to deliver **Clean Energy** fuel. Based on that tracking we will establish corporate goals for future procurements.

Local Content 4.3.2

Clean Energy is committed to contributing to sustainable economic development in the communities we do business. We provide local suppliers and contractors the opportunity to participate in our work through competitive bid processes. We recognize the challenges of our unique technology needs present to local and small suppliers. Beginning in 2018, **Clean Energy** will track the materials and services supplied to us by local and small businesses. Based on that tracking we will establish corporate goals for future procurements.

Ethics & Integrity 4.4

As a publicly traded company, **Clean Energy** recognizes and respects our responsibility to our stockholders for the stewardship of company assets and resources. **Clean Energy** is committed to compliance with the laws and regulations to which it is subject.

Core Values 4.4.1

Success starts with our values. Critical to sustaining **Clean Energy's** leadership position in the industry is a commitment to our values, the *Tower of Success.* These core values are used as the foundation for hiring, goal setting, evaluating performance, and developing employees.

Quality

Clean Energy is committed to quality, from high-quality fuel to professional demeanor. We believe in productivity, process, and organization to ensure a quality experience for both employees and customers. We pride ourselves on being available, accessible, and accurate.

Teamwork

Clean Energy works together. Our policy is respect, courtesy, tact, and openness. We believe in ownership and tackling issues head-on.

Leadership

Clean Energy is visionary. From innovative approaches to corporate citizenship, we strive to be the industry example. We believe in being proactive and are dedicated to timely decisions and decisive action.

Passion

Clean Energy believes in company pride. We are excited about the future of natural gas and are enthusiastic about the opportunities its use presents.

Code of Ethics 4.4.2

Clean Energy's *Code of Ethics,* adopted and administered by the Board of Directors, ensures that we operate at the highest level of integrity in all aspects of our business. Our *Code of Ethics* is comprehensive in scope, including discussions of conflict of interest, fair dealing, and accounting controls and disclosures.

Clean Energy is subject to regulations both in the United States and abroad. Company policy requires that all employees, officers, and directors of the company comply fully with both the spirit and the letter of all laws, rules, and regulations. To establish a consistent understanding of our ethical standards, all **Clean Energy** employees receive training on our Corporate Policies, which include our *Code of Ethics, Anti-Corruption Policy, Insider Trading Policy, Political Activities Compliance Policy, Social Media Guidelines,* and *Whistleblower Policy.*

Clean Energy takes the conduct of our employees seriously and encourages reporting of questionable conduct. Our *Whistleblower Policy* governs the reporting and investigation of improper activities at **Clean Energy**, as well as the protection afforded to those employees who report them. **Clean Energy** has obtained a confidential environment and to comply with the terms of the *Sarbanes-Oxley Act of 2002,* **Clean Energy** has retained a confidential third-party reporting service to handle reports of any improper financial procedures.

Clean Energy employees should never be content with simply obeying the letter of the law, but must also strive to comport themselves in an honest and ethical manner.

Anti-Corruption Policy 4.4.3

Clean Energy has a responsibility to our employees, shareholders, and the communities in which we do business to be lawful and ethical in our work. As such, our *Anti-Corruption Policy* explicitly prohibits engagement in bribery or corruption in any form. **Clean Energy** policy requires compliance with all applicable global anti-corruption laws, including the *United States Foreign Corrupt Practices Act (FCPA).*

Governance 4.5

Our Board of Directors provides independent oversight of **Clean Energy's** affairs, inclusive of but not limited to financial, operational, and economic issues. The Board is dedicated to transparent communication on corporate citizenship topics, and we strive to maintain a diverse board with regard to expertise and experience.

Clean Energy is committed to maintaining open dialogues with our shareholders on governance, financial, and environmental topics provided in our Securities and Exchange Commission filings, Annual Report, and this and future Corporate Sustainability Reports, which can all be found on our website (www.cleanenergyfuels.com).

Conflict Minerals 4.6

Clean Energy maintains a policy relating to the Conflict Minerals that is guided by its core beliefs and values as stated in the Company's *Code of Ethics.* We are committed to ethical practices and compliance with applicable laws and regulations wherever we do business. **Clean Energy** believes that our commitment to integrity and citizenship extends to our worldwide supply base. We are committed to sourcing our products responsibly, and expect our suppliers to also source materials from responsible suppliers. **Clean Energy** expects our suppliers to partner with us to comply with the *Conflict Minerals Rule.* We evaluate our relationships with our suppliers on an ongoing basis, and reserve the right to consider the extent to which a supplier has failed to reasonably comply with the Company Policy.

Clean Energy has designed its Conflict Minerals reporting efforts to align and comply with the *Conflict Mineral Rule.* The full text of the Company Policy is available at http://investors.cleanenergyfuels.com/corporate-governance.cfm.

Citizenship

Citizenship 5.0

Clean Energy understands that corporate citizenship is integral to sustainable development. To us, citizenship extends beyond basic legal and ethical responsibilities. Our goal is to improve quality of life for our employees, customers, partners, shareholders, and the communities we serve. At **Clean Energy**, we view our company as a responsible citizen in the natural gas and transportation industries. Therefore, we are proud to champion advancements in the natural gas technology, station operations, and safety that create effective solutions for fleets.

SAFETY 5.1

Safety is more than just our top priority. It is the foundation upon which **Clean Energy's** programs and initiatives are built. Whether it be in the design of new stations, upgrades to existing stations, managing construction sites, or providing on-going operations and maintenance services, safety best practices are intertwined in all we do.

Process Safety 5.1.1

Clean Energy is committed to risk management across our facilities, operations, and equipment. To us, safety begins with sound engineering and design. We require that our facilities and equipment meet or exceed all appropriate standards, and we incorporate multiple layers of protection into design to safeguard our operations.

In identifying process safety risks, we employ a proactive approach. Through regular, systematic assessments, engaging third-party reviewers where necessary, we review our facilities and programs on a continual basis. We focus on proactive detection and resolution of potential issues to ensure, to the extent possible, that risks are mitigated before incidents can occur.

Product Safety & Service 5.1.4

Clean Energy fuel products are assessed through their lifecycles for potential safety, health, and environmental risks. All products are evaluated for compliance with chemical control and hazardous communication regulations at multiple points during our production and distribution processes. Lifecycle monitoring is crucial for ensuring that our products fulfill their intended performance, meeting customer, and legal expectations.

Remote Station Monitoring

An example of our industry-leading, innovative safety practices, the **Clean Energy** remote station monitoring system provides our Operations Center and service technicians complete visibility of station functionality and system performance in real time—24 hours a day, 365 days a year. The remote station monitoring system detects any faults or alarms that occur at any of our fueling stations across the country. Once a fault is detected, our Operations Center staff is available for immediate support. On average, our 24/7 operations center responds to a fault detection within 45 seconds. In many cases, our Operations Center can identify and correct station issues without our customers even noticing the equipment fault.

Beyond monitoring for fault conditions, **Clean Energy** staff can view real time station status on our corporate supervisory control and data acquisition (SCADA) system in our Operations Center or by directly connecting to local SCADA systems on the customer networks. This provides two methods for **Clean Energy** to reset fault conditions and allows our staff remote access to update set points and monitor station performance.

Training 5.1.2

We understand that safety is not maintained through initial training alone — a culture of safety requires continuous effort and focus. **Clean Energy** emphasizes safety and quality daily. We provide regular training for our employees and contractors. Examples of our training programs include:

Learning Management System

Clean Energy has implemented an internal Learning Management System called *Brainier.* It has been directly integrated with our Human Capital Management program, *Ultipro*, which has allowed us to ensure that immediately upon hire or change of title, employees are enrolled into orientation, safety, and job-specific training. Additional features include detailed tracking and reporting of employee training status, progress, and completions; supervisor notification of behind-schedule, or past due subordinate training; and training reminders.

Occupational Safety and Health Administration (OSHA) Training

Clean Energy provides comprehensive OSHA training to all levels of our operations team. Training comprises hazard communication, personal protective equipment, emergency action plans, fire prevention and protection, and exit routes, among other general and industry-specific safety topics. **Clean Energy** technicians complete OSHA-10 training, and all management is OSHA-30 certified.

Technical Training Center

To support standardizing procedures, we established **Clean Energy's** Technical Training Center in Denver, CO. Since 2015, new and veteran service technicians receive formal classroom and hands on training to safely service and maintain compressors, dryers, dispensers, PLCs, and other critical CNG station components. In addition, they receive training in safety procedures, first aid, customer service, and other topics that help us deliver a consistent product across the country. These training courses are required for all our field employees and demonstrate our company's commitment to develop the most qualified and best-trained team of technicians in the natural gas fueling industry. Further, selected service technicians separately attend OEM-held certification training for Caterpillar and Waukesha engines.

Our highly trained technicians monitor all **Clean Energy** fuel stations. We provide remote, around the clock monitoring, regular safety and quality inspections, preventative maintenance, and timely expert repairs to keep our stations running safely and optimally.

Our People 5.2

Clean Energy is proud of our talented, motivated workforce. From plant operations to our nationwide network of technicians, providing high-quality fuel across North America requires a wide range of specialist skills. We seek to foster a diverse workforce of highly-skilled individuals who are committed to integrity and corporate citizenship.

Diversity & Inclusion 5.2.1

As a global employer, **Clean Energy** recognizes that diversity of experience, thought, and culture is not only central to our identity but a competitive advantage. Slightly more than half of our employees are based in the United States. Of **Clean Energy's** US employees, 78 percent are male with the remaining 22 percent female, 22 percent representing minorities, and 8 percent self-reporting as active or retired military. **Clean Energy** is committed to tracking and reporting demographics of our employees.

Women and minorities in leadership roles make up nearly 30 percent. **Clean Energy** is committed to fostering diversity at every level has set a goal of 35% females and minorities in leadership roles by 2022.

Employee Benefits 5.2.2

Our benefits program is a critical part of a total compensation package designed to reward and retain our employees. Our welfare benefits include medical insurance, dental insurance, vision insurance, disability insurance, life insurance, prescription drug coverage, 401-K retirement plan, and an Employee Assistance Program (EAP), among others. The EAP offers 24-hour assistance for problem-solving, parental support, relationship building, crisis intervention, alcohol or drug addiction, community resources, financial advising, family relationships, stress, anxiety or depression, and is confidential to the extent legally permissible.

For benefits information, **Clean Energy** maintains an online self-serve portal, the *Clean Connection*. From day-to-day operations into retirement, we strive to be responsive to the needs of our team.

Health & Wellness 5.2.3

Our health policy communicates the corporate expectations for identifying and evaluating health risks related to operations that can affect employees, contractors, or the public.

Clean Energy also provides voluntary health programs to our employees to improve well-being and productivity. For example, **Clean Energy** offers voluntary fitness programs and gym membership reimbursement to promote physical fitness and employee wellness.

Clean Energy offers a variety of workplace flexibility programs to meet employee needs, improve productivity, and maintain engagement. Examples include adjustable work hours and adaptable workplace arrangements.

Workforce

LOCATION

U.S.	56.2%
Outside U.S.	43.8%

OVERVIEW (U.S. ONLY)

Men	77.6%
Women	22.4%
Minority	22.8%
Active & Retired Military*	8.1%

GENDER LEADERSHIP ROLES (U.S. ONLY)

Men	80.7%
Women	19.3%
Minority	18.5%

*Self-Reported

Our Community 5.3

Ensuring that we have a positive impact on our local communities is crucial to being a good corporate citizen. From charitable efforts to empowering tomorrow's leaders, **Clean Energy** is committed to community involvement.

Community Involvement 5.3.1

Even as our network expands across the country, **Clean Energy** remains an engaged member of our local communities. **Clean Energy** team members support, donate to, and volunteer for charitable causes throughout the year.

Run Seal Beach®

Clean Energy supported the annual *Run Seal Beach* community race in Seal Beach, California in 2016 as a Gold Sponsor. *Run Seal Beach* is a non-profit organization whose charter is to raise funds and awareness for recreation and fitness programs to benefit the greater Seal Beach Community. Since 2003, *Run Seal Beach* has given $1,312,510 back to the community.

Clean Energy team members participated both as runners and as volunteers.

Huntington Beach Youth Shelter

In the 2013-2014 school year, more than 30,000 local children were homeless or living in substandard conditions in Orange County, California, home of **Clean Energy's** corporate headquarters, according to the Orange County Department of Education.

In 2016, **Clean Energy** continued our annual contributions to the *Huntington Beach Youth Shelter*. Operated by *Community Service Programs Inc.*, an Orange County nonprofit organization dedicated to helping crime victims, homeless youths, and at-risk communities, the *Huntington Beach Youth Shelter* provides a safe place for homeless children and teenagers to live, heal, and learn skills to help them succeed. The shelter's primary goals are to put families safely back together and keep teens out of institutions. **Clean Energy** team members collected and donated home and school supplies to improve this safe space in the Orange County community.

Second Harvest Food Bank of Orange

During the Thanksgiving season in 2016, **Clean Energy** supported the Second Harvest Food Bank of Orange County. As Orange County's leading hunger-relief organization, Second Harvest provides wholesome food and fresh produce to more than 250,000 hungry children, seniors, and families in Orange County every month.

Clean Energy believes we can achieve a future without hunger in our community. As such, **Clean Energy** team members donated over 400 pounds of food in 2016 during our annual campaign against hunger food drive—enough for over 335 Thanksgiving meals.

Toys for Tots

For many years **Clean Energy** and our staff have supported the U.S. Marine Corps Reserve's Toys for Tots Program. Toys for Tots' mission to improve the lives of communities across the United States aligns with the founding principles of **Clean Energy.** Toys for Tots supports the community by delivering gifts in December to needy families. Each November and December our staff collects toys to donate to the Program. The Marines accept the toys and distribute them to less fortunate families across our community.

In 2016 **Clean Energy** was proud to donate XX gifts for Toys for Tots. Our staff is already looking forward to participating in 2017!

Internship Program 5.3.2

Through our Summer Internship Program, we promote the importance of corporate environmental stewardship for the next generation of business leaders. Our internship program provides invaluable experience as it provides exposure to our markets, environmental issues and how different departments work together.

Since 2010, **Clean Energy** has mentored 83 college interns from around the country to educate them about the opportunities of natural gas vehicle fuel as well as becoming an effective leader in the business community. As part of the community, interns work together with our experts in the industry space. For example, our progressive LNG Pricing Model—now a company standard, critical to our supply chain management—was initially developed as a summer internship project. The model, which consolidates nationwide pricing information in real time, enables us to optimize logistics and profit margins.

From visits to fueling stations to executive presentations to regular dialogues with our scientists and leadership team, we immerse our interns in all aspects of **Clean Energy's** business. The Internship Program is more than just an incubator for young professionals; it is a great economic benefit to the communities in which our employees live and work. In fact, this report was prepared in 2017 with contribution by **Clean Energy's** first sustainability intern, Thomas Stupps (pictured above, second from left).

"I am very thankful to have been a part of such an incredible internship program with **Clean Energy** this past summer.

"I was treated as a valued employee throughout this program"

"The experience will be very valuable to me moving forward as I learned how to function in a very professional setting, as well as getting to see the ins and outs of the Natural Gas business from the perspective of more than just the typical intern. I was treated as a valued employee throughout this program, as I was given legitimate projects to work on as well as being included in important business ventures. It is rare that interns are given the ability to add value to their company while adding value to themselves, yet with their heavy focus on citizenship, **Clean Energy** ensured that I would be able to do both. I now feel prepared for success within the business world, thanks to this program!"

Thomas Stupps
Sustainability Intern

Our Industry 5.4

Natural gas reserves in North America are abundant and natural gas has been proven to be a cleaner, more efficient fuel for the transportation sector. Despite these great advantages, traditional fossil fuels continue to fuel the large majority of the transportation sector. **Clean Energy's** mission is to help bring a dramatic change to the transportation industry through the delivery of cleaner-burning natural gas. To support this shift to natural gas we engage with technology partners, our customers, and communities to advance the state of technology and availability for all stakeholders.

Vehicle Technology Advancement 5.4.1

Although natural gas is a fundamentally cleaner burning fuel than diesel or gasoline, we continue to work with industry partners to further improve natural gas engines and reduce emissions. **Clean Energy** is proud to sponsor studies and demonstration projects of the latest advancements in engine technology. Over the past several years, **Clean Energy** has partnered with Cummins Westport to bring an ultra-clean-burning natural gas engine to the medium-duty and heavy-duty markets. The new series of Cummins Westport engines have been shown to emit fewer NOx emissions than the emissions associated with the electrical grid. In 2016, **Clean Energy** was a co-sponsor of a study that compared the greenhouse gas benefits of RNG to electrical vehicles (GNA, 2016). The study found that recent advancements in natural gas engines have made RNG fueled vehicles favorable to electric vehicles powered from the electrical grid.

Grant Department 5.4.2

Clean Energy has a dedicated team of grant professionals that are charged with helping our customers and partners, identify, apply for, and administer grants to implement natural gas technology. To date we have secured over $356 million in grant funding for our company and our customers, our team has the experience and know-how to make our customer's transition to natural gas even more successful.

The Grants Department supports the grant project during all phases, from grant application development to project implementation including contract execution, data collection and reporting. Our staff has the systems and processes in place to fulfill data collection and reporting obligations required by funding agencies.

Industry Advocacy 5.4.3

At **Clean Energy**, our products are fundamentally cleaner than traditional transportation fuels. Over our twenty-year history, we have been a consistent advocate for the industry and for policies that support cleaner fuels. **Clean Energy** is a regular contributor to organizations that share our vision of broad access to natural gas across the transportation sector. We are proud to support Natural Gas Vehicles for America (NGVA) and its efforts to improve air quality through the deployment of natural gas fleets and personal vehicles.

Public Accessibility 5.4.4

Many of our customers are commercial and governmental fleet operators, however, as of December 31, 2016, nearly half of **Clean Energy's** 577 fueling stations were available to the public. This availability helps ensure fueling availability for consumers considering natural gas personal vehicles.

Associations 5.5

To broaden our understanding of the trends and issues of the energy industry and markets we serve, **Clean Energy** is an active participant in many trade and industry associations. Additionally, as discussed elsewhere, **Clean Energy** is a leader in organizations that are committed to expanding access to, and acceptance of, natural gas as a transportation fuel. Highlights of our organizational involvement include:

- American Biogas Council
- California Transit Association
- Harbor Truckers Association
- The Nevada Trucking Association
- California Truckers Association
- Association of Washington Businesses
- Coalition for Renewable Natural Gas
- Coalition for Clean Air
- Natural Gas Vehicles for America
- Bioenergy Association of California
- California Natural Gas Vehicle Coalition
- Chambers of Commerce — Local, State, and Federal
- Non-Profit Entities
- CSA, NFPA

Success Story

GRANT DEPARTMENT

Total Requested (2016)	$51.6 million
Total Awarded (2016)	$40.5 million
Total Awarded (Historical)	**$368.6 million**

Conclusion

Conclusion 6.0

This Sustainability Report was prepared in accordance with the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines and the GRI Oil and Gas Sector Supplement. Core Disclosures are indexed in Table 23 for reference.

Clean Energy's operating territories include the United States, Canada, China, Bangladesh and Columbia. Material issues discussed in this 2016 Sustainability Report address our operations in the United States and Canada. We anticipate the inclusion of our remaining operations in future reports.

The 2016 Sustainability Report comprises **Clean Energy's** operations from January 1, 2016, to December 31, 2016. Sustainability metrics will be reported on an annual basis.

For any questions regarding this report, please contact Ashley White, Director and Head of Corporate Sustainability.

Corporate Sustainability Goals 7.0

Throughout this document, **Clean Energy** has committed to advancing its corporate sustainability. The following is a summary of those commitments:

Carbon Footprint
Continue to grow and displace environmentally damaging GHG-intensive fossil fuels with natural gas, and track and report our carbon footprint and greenhouse gas reductions.

Air Quality
Commitment to procuring natural gas vehicles for all **Clean Energy** maintenance fleets vehicles by 2022.

Methane Leak Mitigation
Track the benefits of the expanded LDAR program and upon proven results will make a formal commitment to roll out to all its stations.

Waste
Goal to reducing our paper usage by twenty percent by 2022.

Corporate Offices
Contracting with office buildings that are LEED-certified.

Supply Chain
Track and report the percentage of natural gas trucks the fuel tanker fleet is using to deliver **Clean Energy** fuel.

Local Content
Track and report additional demographics of our employees.

Demographics
Goal to achieve 40% leadership representation by female and minority employees.

Looking Forward 8.0

In 2016, there were approximately 1,750 natural gas fueling stations in the United States and about 153,000 natural gas vehicles on American roads (**Clean Energy**, 2016)—more than ever before. As natural gas vehicle adoption continues to move forward, **Clean Energy** will remain at the forefront. In 2017 and beyond, we are looking forward to:

America's Natural Gas Highway

Clean Energy's nationwide network of natural gas-truck friendly fueling stations expanded throughout 2016. We look forward to providing even more clean fuel options for the trucking industry next year.

Expansion of RNG Portfolio

With **Redeem's** success, we are excited about the continued development of our renewably sourced products. We are proud of the environmental benefit our RNG products provide and look forward to collaborating with additional third-party producers.

Still Scratching the Surface

With over 308 trillion cubic feet of proven natural gas reserves in the United States alone (US EIA, 2017b), we cannot overstate the potential of the natural gas industry. As natural technology and infrastructure continue to develop, we look forward to continued displacement of conventional fossil fuel use in transportation.

Performance 9.0

CLIMATE CHANGE		
Direct GHG Emissions (Scope 1)	6,012	metric tons of CO_2 equivalent
Indirect GHG Emissions (Scope 2)	58,715	metric tons of CO_2 equivalent
Other Indirect GHG Emissions (Scope 3)	2,069,176	metric tons of CO_2 equivalent
Carbon Dioxide (CO_2) Emissions	2,133,006	metric tons of CO_2 equivalent
Methane (CH_4) Emissions	291.6	metric tons of CO_2 equivalent
Nitrous Oxide (N_2O) Emissions	605.2	metric tons of CO_2 equivalent
Hydrofluorocarbons (HFCs) Emissions	N/A	metric tons of CO_2 equivalent
Perfluorocarbons (PFCs) Emissions	N/A	metric tons of CO_2 equivalent
Sulphur Hexafluoride (SF_6) Emissions	N/A	metric tons of CO_2 equivalent
Nitrogen Trifluoride (NF_3) Emissions	N/A	metric tons of CO_2 equivalent
Volume of flared hydrocarbons	N/A	m^3
Volume of vented hydrocarbons	9,201	MMBTU
ENVIRONMENT		
NO_x	106,030	kg
SO_x	189,586	kg
Persistent Organic Pollutants (POP)	NA	kg
Volatile Organic Compounds (VOC)	121.3	kg
Hazardous Air Pollutants (HAP)	N/A	kg
Municipal Water Utility	167,341	m^3
Surface Water	N/A	m^3
Groundwater	N/A	m^3
Collected/Stored Rainwater	N/A	m^3
Wastewater	1,051	m^3
PEOPLE		
Employees	832	—
Employees — Leadership Role	119	—
Women — Leadership Role	23	—
U.S. Employees	468	—
Employees Outside U.S.	364	—
Men — U.S. Only	363	—
Women — U.S. Only	105	—
Collective Bargaining Agreement Members	0	%
SAFETY		
Tier 1 Process Safety Event	0	—
Tier 2 Process Safety Event	0	—
Work-Related Fatality	0	—
Lost Day Rate (LDR)	0.37	—
Absentee Rate (AR)	2.05	—
Injury Rate (IR)	1.89	—
Occupational Diseases Rate (ODR)	0	—
PERFORMANCE		
Natural Gas Sold	329.0	GGEs
Biomethane Produced	23,571,726	L of GGE
Energy Intensity of Produced CNG	N/A	GJ/mboe
Energy intensity of Produced LNG	N/A	GJ/mboe
Energy Value of Biomethane	2,146,835	MWh
Energy Consumed in Clean Energy Operations	165,912	MWh
Biomethane Purchased	230,203,807	L
Cost of Biomethane Purchased	Not reported	$
Area of Land Used for Biomethane Production	469	Ha
FINANCIAL		
Net Revenues	402,656	$, thousands
Operating Costs	420,293	$, thousands
Employee Wages	12,293	$, thousands
Payments to Providers of Capital	1,849	$, thousands
Payments to Governments	4,572	$, thousands
Economic Value Retained	(36,351)	$, thousands

At the time of preparation **Clean Energy Fuels** had data for only the Boron Plant.
Data for the Pickens Plant will be collected for future reporting years.

GRI Content Index 9.0

ASPECT	NO.	SECTION
Strategy and Analysis	G4–1	1.1
Organizational Profile	G4–3	1.3
	G4–4	1.3
	G4–5	1.3
	G4–6	1.3
	G4–7	4.4
	G4–8	1.3.4
	G4–9	1.3.1
	G4–10	5.2
	G4–11	9.0
	G4–12	4.3
	G4–13	1.3
	G4–14	1.4
	G4–15	5.5
	G4–16	5.5
Identified Material Aspects and Boundaries	G4–17	1.3
	G4–18	1.4, 1.5
	G4–19	1.5
	G4–20	1.5
	G4–21	N/A
	G4–22	N/A
	G4–23	N/A
Stakeholder Engagement	G4–24	1.4
	G4–25	1.4
	G4–26	1.4
	G4–27	1.4, 1.5
Report Profile	G4–28	1.0
	G4–29	N/A
	G4–30	1.0
	G4–31	6.0
	G4–32	1.0
	G4–33	10.0
Governance	G4–34	4.5
Ethics and Integrity	G4–56	4.4
Economic Performance	G4–EC1	4.1
	G4–EC2	2.0
Market Presence, including Local Content	G4–DMA	1.5
Indirect Economic Impacts	G4–DMA	1.5
	G4–EC7	1.3, 4.1
	G4–EC8	2.0, 3.0
Procurement Practices	G4–DMA	1.3, 3.0, 4.3
Reserves	OG1	1.2
Materials	G4–EN1	N/A
Energy	G4–DMA	9.0
	G4–EN5	9.0
	OG2	9.0
	OG3	9.0
Water	G4–EN8	9.0
	G4–EN9	N/A
Ecosystem Services including Biodiversity	G4–DMA	3.3
	OG4	N/A

ASPECT	NO.	SECTION
Emissions	G4–EN15	9.0
	G4–EN16	9.0
	G4–EN17	9.0
	G4–EN18	9.0
	G4–EN19	2.1, 9.0
	G4–EN21	9.0
Effluents and Waste	G4–DMA	9.0
	G4–EN23	9.0
	G4–EN24	9.0
	OG5	9.0
	OG6	9.0
	OG7	N/A
Products and Services	G4–EN27	2.0
	OG8	N/A
Employment	G4–DMA	5.2
Occupational Health and Safety	G4–DMA	5.1
	G4–LA6	9.0
Security Practices	G4–DMA	N/A
	G4–HR7	N/A
Indigenous Rights	G4–DMA	N/A
	G4–HR8	N/A
	OG9	N/A
Supplier Human Rights	G4–DMA	4.3, 4.4
Local Communities	G4–DMA	4.3.2, 5.3
	G4–SO2	N/A
	OG10	N/A
	OG11	N/A
Anti-Corruption	G4–DMA	4.4.3
	G4–DMA	4.4.3
Compliance	G4–SO8	N/A
Emergency Preparedness	G4–DMA	5.1
Involuntary Resettlement	G4–DMA	N/A
	OG12	N/A
Asset Integrity and Process Safety	G4–DMA	5.1.1
	OG13	9.0
Fossil Fuel Substitutes	OG14	9.0

External Assurance 10.0

To the Board and stakeholders of **Clean Energy Fuels Corp.**:

iCompli Sustainability has examined the data identified below (the Data) contained within the *Clean Energy Fuels Corp. Sustainability Report* (the Report) for the fiscal year ended December 31, 2016. **Clean Energy Fuels Corp.** management is responsible for the Data. Our responsibility is to express an opinion on the following Data:

- Climate Change, Environment, People and Safety data as contained in the Performance section 9.0 of the Report.

iCompli Sustainability conducted the verification in accordance with the AccountAbility AA1000AS Assurance Standard and the requirements of ISO 14064-3: Greenhouse gases — Specification with guidance for the validation and verification of greenhouse gas assertions. The format of the engagement was structured to meet the 'limited' level of assurance requirements. The boundary of the verification was **Clean Energy Fuels Corp.** operations including production facilities, fuelling stations and corporate vehicles under the operational control of **Clean Energy Fuels Corp.**

Our review of **Clean Energy Fuels Corp.'s** corporate sustainability database (dated October 31, 2017) included examining, on a test basis, evidence supporting the Data and performing such other procedures as we considered necessary in the circumstances. Our review evaluated the Data for conformity with the requirements of the WBCSD/WRI Greenhouse Gas Protocol.

Clean Energy Fuels Corp.'s reported Data were considered free of material misstatement if found to be within the defined materiality threshold of 5%. **Clean Energy Fuels Corp.'s** assertions were tested according to a risk-based approach and the review of controls to manage these risks, including:

- Procedural reviews of the internal reporting system used to collect and compile the Data;
- Interviewing employees responsible for data collection and reporting;
- Reviewing relevant documentation, including corporate policies, management and reporting structures; and,
- Performing tests, on a sample basis, of documentation and systems used to collect, analyze and compile the Data included in the Report.

Excluded from the scope of this verification is assurance of the Performance or Financial figures within section 9.0 of the Report, data from two **Clean Energy Fuel Corp.** renewable natural gas production facilities sold during the period, data from one liquefied natural gas production facility, fugitive and leakage emissions that occur in the distribution process, and Scope 3 sources not yet calculated for **Clean Energy Fuel Corp.'s** operations or its value chain.

Based on our review there is no evidence that **Clean Energy Fuels Corp.'s** reported Data for the fiscal year ended 2016 are not materially correct and are not a fair representation of sustainability data and information.

As part of the assurance engagement, iCompli Sustainability has provided **Clean Energy Fuels Corp.** with a series of specific recommendations to ensure the continual improvement of the Data, including:

- With respect to Data completeness, **Clean Energy** should improve the collection, storage and compilation processes at the corporate and facility level.
- With respect to Data accuracy, **Clean Energy** should improve its quantitative analysis and reporting procedures.

iCompli Sustainability, a division of BPA Worldwide, is an independent professional assurance provider that specializes in environmental, social and technology accountability with over 85 years history. Its assurance team has extensive experience in conducting verification over environmental, social, and technology information, systems and processes.

iCompli Sustainability has not been responsible for the preparation of any part of the Data, and Responsibility for producing the report belonged to **Clean Energy Fuels Corp.**

iCompli Sustainability,
a division of BPA Worldwide
Shelton, CT US
October 31, 2017

References 11.0

Clean Energy Fuels Corporation, 2016a. Redeem Fact Sheet. http://redeem.cleanenergyfuels.com/images/Redeem-Fact-Sheet-10.12.16.pdf. October 12, 2016.

Clean Energy Fuels Corporation, 2016b. Form 10-K 2016 (Annual Report).

Clean Energy Fuels Corporation, 2017a. Form 10-K 2017 (Annual Report).

Clean Energy Fuels Corporation, 2017b. Today's Fuel Challenge. https://www.cleanenergyfuels.com/natural-gas-today/todays-fuel-challenge/.

Gladstein, Neandross & Associates, 2016. Game Changer Technical White Paper; Next Generation Heavy-Duty Natural Gas Engines Fueled by Renewable Natural Gas.

Intergovernmental Panel on Climate Change, 2007. Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

International Energy Agency, 2016. "IEA raises its five-year renewable growth forecast as 2015 marks record year" October 25.

National Aeronautics and Space Administration, 2017. NASA, NOAA Data Show 2016 Warmest Year on Record Globally. https://www.nasa.gov/press-release/nasa-noaa-data-show-2016-warmest-year-on-record-globally. January 18, 2017.

Natural Gas Vehicles for America, 2015. Vehicles. http://www.ngvamerica.org/vehicles/. December 31, 2015.

Natural Gas Vehicles for America, 2015. For Consumers. http://www.ngvamerica.org/vehicles/consumers. December 31, 2015.

Natural Gas Vehicles for America, 2016. Fleets Run Cleaner on Natural Gas. http://www.ngvamerica.org/wordpress/wp-content/uploads/2016/09/NGVAmerica-White-Paper-Fleets-Run-Cleaner-on-Natural-Gas_V2.pdf. September, 2016.

United States Department of Transportation Federal Highway Administration, 2016. Traffic Volume Trends.

United States Environmental Protection Agency, 2015. Sources of Greenhouse Gas Emissions. https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. April 14, 2017.

United States Environmental Protection Agency, 2017. Natural Gas Explained, How Much Natural Gas is Left. https://www.eia.gov/energyexplained/index.cfm?page=natural_gas_reserves. January 10, 2017.

Unites States Energy Information Agency, 2016. Hydraulically Fractured Wells Provide Two-thirds of U.S. Natural Gas Production" May 5, 2016.

United States Energy Information Agency, 2017a. Natural Gas Explained. https://www.eia.gov/energyexplained/index.cfm?page=natural_gas_reserves. January 10, 2017

United States Energy Information Agency, 2017b. Frequently Asked Questions. https://www.eia.gov/tools/faqs/faq.php?id=73&t=11. June 8, 2017.

Appendix A
Clean Energy Subsidiary Listing

SUBSIDIARY	STATE OR COUNTRY OF INCORPORATION OR ORGANIZATION
I.M.W. CNG Bangladesh Ltd.	Bangladesh
0884808 B.C. Ltd.	British Columbia
Clean Energy Compression Corp.	British Columbia
IMW Industries, Ltd.	British Columbia
IMW Worldwide Services Ltd. (formerly 0886011 B.C. Ltd.)	British Columbia
Clean Energy	California
Clean Energy Finance, LLC	California
Clean Energy LNG, LLC	California
Clean Energy Los Angeles, LLC	California
IMW Clean Energy Technology (Suzhou) Co., Ltd.	China
IMW Compressors (Shanghai) Co., Ltd.	China
Clean Energy Compression Ltda.	Colombia
Natural Fuels Company LLC	Colorado
Blue Energy General LLC	Delaware
Blue Energy Limited LLC	Delaware
CE Natural Gas Fueling Services, LLC	Delaware
Clean Energy National LNG Corridor, LLC	Delaware
Clean Energy Renewable Fuels, LLC	Delaware
Clean Energy & Technologies LLC	Delaware
Mavrix, LLC	Delaware
Mansfield Clean Energy Partners, LLC*	Delaware
NG Advantage LLC*	Delaware
Mansfield Gas Equipment Systems Corporation.	Georgia
Canton Renewables, LLC	Michigan
IMW del Peru S.A.C.	Peru
CERF Shelby, LLC	Tennessee
Blue Fuels Group LP	Texas
Clean Energy Texas LNG, LLC	Texas
TranStar Energy Company LP	Texas
IMW Industries, Inc.	Washington
M&S Rental, LLC	Wyoming
Southstar LLC	Wyoming
Wyoming Northstar Incorporated	Wyoming

Let us find the right fueling solution for you.

Clean Energy is a pioneer in creating comprehensive natural gas fueling solutions for the transportation industry. We continually invest in developing and manufacturing new technologies. This means everything we do — from designing and operating stations, to helping you navigate financing options, gives you one of the most advanced fleets on the road today. The switch to natural gas fuel is easier and more affordable than you think. Start saving money from day one, and reduce your carbon footprint with the leading domestic, alternative fueling solution.

To learn more, call the **Clean Energy** team today.

4675 MacArthur Court, Suite 800
Newport Beach, California 92660
Tel 949.437.1000 • Fax 949.724.1397
www.CleanEnergyFuels.com