

CASE STUDY

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COOLCALIFORNIA CLIMATE LEADER

New Leaf Biofuel San Diego CA

Getting to the Core of Renewable Energy and Environmental Stewardship



Air Resources Board's Research Division Chief Bart Croes with Jennifer Case, President of New Leaf Biofuel.

New Leaf Biofuel (New Leaf) is committed to inspiring global transformation by promoting healthy growth and sustainability within their community. They partner with local restaurants to produce premium biodiesel from recycled cooking oil (like french fry oil) and supply this renewable fuel throughout the region. Their fuel is used in fleets (e.g., San Diego Unified School District) and their sustainable company helps to improve air quality, create green jobs in the community, and reduce petroleum imports.

New Leaf took part in a recent expansion and carbon intensity reduction project resulting in significant energy and water savings. With this project, New Leaf now displaces over 5 million gallons of petroleum diesel annually, equivalent to removing 9,000 cars from the road.



Oil used to cook french fries is collected by New Leaf and turned into transportation fuel.

BUSINESS SNAPSHOT

New Leaf Biofuel converts used cooking oil from local restaurants into biodiesel, a cleaner burning alternative to petroleum diesel.

Green Actions:

- Replaced two old heavy duty trucks with newer higher efficiency vehicles that run on biodiesel
- Reduced heat loss by installing jacketed bio-reactors
- Replaced two old, low efficiency boilers with a new 2.2 MMBtu natural gas boiler
- Installed load leveling variable frequency drives (VFDs) and associated control software
- Installed high insulation piping for all process heating and cooling lines
- Use energy efficient lighting including motion activated sensors
- Compost food waste
- Use recycled paper and duplex printing

Savings:

- Their recent expansion and carbon intensity reduction project resulted in an electricity consumption rate decrease from 0.79 kWh per gallon average to 0.48 kWh per gallon average, equivalent to a 39% reduction in electricity use intensity
- They reduced water consumption from an average of 0.79 gallons of water per gallon of biodiesel produced to 0.48 gallons of water per gallon of biodiesel, equivalent to a 39% reduction in water use intensity



They also installed jacketed reactors in their processing room which eliminated the need for external heat exchangers and substantially reduced the amount of heat needed to bring the reactors to the required processing temperature.

Setting up high insulation piping for all process heating and cooling lines and installing load leveling variable frequency drives (VFDs) reduced heat loss and energy consumption. Facility process water improvements and utilization of a more efficient 2.2 MMBtu natural gas boiler achieved water savings. These actions resulted in a 39% decrease in electricity consumption and a 39% decrease in water use.



The New Leaf process not only benefits the environment, the business helps the restaurants it serves by increasing customers.

New Leaf's company culture is defined by the following core values: balance, empowerment, environmental stewardship, integrity, and positivity. They believe that environmental stewardship is aligned with creating a healthy, responsible atmosphere for all employees. Their employees do their own part by composting at the office and using recycled paper and duplex printing.

New Leaf is a part of the Clean Cities Coalition, National Biodiesel Board, and California Biodiesel Alliance. New Leaf gives yearly presentations on the benefits of biodiesel, and last year, their President sat on a panel to discuss "how to green your restaurant" for the California Restaurant Association. New Leaf won the San Diego Excellence in Energy (SANDEE) Award



Cooking oil collected by New Leaf fuels the buses of the San Diego Unified School District.

for Excellence in Transportation and the Blue Sky Leadership Award from the San Diego Air Pollution Control District. A story about New Leaf and its impact on its employees and the community was recently featured on UpLiftCA.org, a website committed to publicizing the local impact of California's environmental policies.

"Here at New Leaf, we have passion for our product, our planet and our community. It is an honor to be recognized with a CoolCalifornia award for doing what we love."

- Jennifer Case, President of New Leaf Biofuel



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