

SELECT A SITE

COUNTRY

Sri Lanka

▼

LOCATION

Capital city - Sri Jayawardenepui

▼

PLANT SIZE

3 t/day — reference unit (\$4.5M)

▼

ENERGY SOURCE

Grid / contract (basis below)

▼

ELECTRICITY BASIS

▼

UNITS

US gallons

▼

SITE PROFILE

Country

Sri Lanka

Site

Capital city - Sri Jayawardenepura Kotte

Mean wind at 50 m

3.8 m/s (8.5 mph)

Consumer retail

Business retail proxy

Negotiated PPA

Tariff used

Local pump price

\$3.97/gal

Plant size

3 t/day reference unit (1,000 gal/day · capex \$4,500,000)

Wind contractor price

Solar contractor price

PRODUCTION COST BY PLANT SIZE

| Plant size                   | Capex         | Diesel     | Gasoline   | Kerosene   |
|------------------------------|---------------|------------|------------|------------|
| 1/10 t/day demonstrator      | \$425,000     | \$5.80/gal | \$5.51/gal | \$5.67/gal |
| 1 t/day                      | \$2,000,000   | \$3.70/gal | \$3.41/gal | \$3.57/gal |
| 3 t/day reference unit       | \$4,500,000   | \$3.20/gal | \$2.91/gal | \$3.07/gal |
| 5 t/day (pro-rata modules)   | \$7,500,000   | \$3.20/gal | \$2.91/gal | \$3.07/gal |
| 10 t/day (pro-rata modules)  | \$15,000,000  | \$3.20/gal | \$2.91/gal | \$3.07/gal |
| 100 t/day (pro-rata modules) | \$150,000,000 | \$3.20/gal | \$2.91/gal | \$3.07/gal |

Production cost per unit of fuel at the tariff above. The highlighted row is the plant size selected.

DIESEL  
MARGINAL — needs a premium anchor

Cost \$3.20/gal  
Market \$4.69/gal · margin 32%  
EBITDA \$300,078/yr · payback 15.0 yr

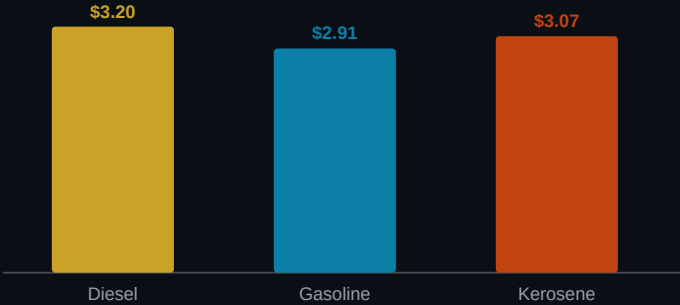
GASOLINE  
MARGINAL — needs a premium anchor

Cost \$2.91/gal  
Market \$3.97/gal · margin 27%  
EBITDA \$213,617/yr · payback 21.1 yr

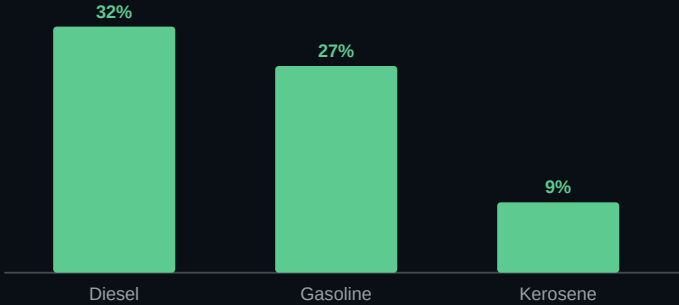
KEROSENE  
MARGINAL — needs a premium anchor

Cost \$3.07/gal  
Market \$3.38/gal · margin 9%  
EBITDA \$61,809/yr · payback 72.8 yr

PRODUCTION COST BY FUEL



MARGIN AGAINST THE LOCAL MARKET



FULL ANALYSIS – ALL THREE FUELS

| Fuel     | Cost       | Market     | Margin | EBITDA/yr | Payback |
|----------|------------|------------|--------|-----------|---------|
| Diesel   | \$3.20/gal | \$4.69/gal | 32%    | \$300,078 | 15.0 yr |
| Gasoline | \$2.91/gal | \$3.97/gal | 27%    | \$213,617 | 21.1 yr |
| Kerosene | \$3.07/gal | \$3.38/gal | 9%     | \$61,809  | 72.8 yr |

## TARIFF SENSITIVITY AT THIS SITE



## CARBON BALANCE & PLANT REQUIRED

|                                        |                                              |
|----------------------------------------|----------------------------------------------|
| Diesel — CO <sub>2</sub> removed       | <b>1,996 t/yr</b> (2.626 kg/L · 9.94 kg/gal) |
| Gasoline — CO <sub>2</sub> removed     | <b>1,745 t/yr</b> (2.296 kg/L · 8.69 kg/gal) |
| Kerosene — CO <sub>2</sub> removed     | <b>1,919 t/yr</b> (2.525 kg/L · 9.56 kg/gal) |
| O <sub>2</sub> returned (diesel basis) | <b>2,146 t/yr</b>                            |
| Output at 3 t/day reference unit       | <b>759,921 L</b> (200,750 gal)               |
| Capex at this size                     | <b>\$4,500,000</b>                           |
| Continuous power                       | <b>1,800 kW</b>                              |

Carbon is circular: the CO<sub>2</sub> removed to make the fuel returns when it burns. The benefit is displacement of fossil carbon, not removal.

## ABOUT THESE FIGURES

These figures are indicative planning estimates. They combine the fuel's energy content, the electricity price you choose, the scale of plant and a standard allowance for other operating costs. Technical background, assumptions and test reports are available on request from [info@fuelfromair.com](mailto:info@fuelfromair.com).

## LOCAL FUEL PICTURE — USE, MARGIN AND CARBON

Every year **Sri Lanka**, where **Capital city - Sri Jayawardenepura Kotte** sits, burns about **1.11 billion gallons** of diesel, gasoline and kerosene. Here is each fuel's share, the margin FFA would earn on it at this site, and the carbon dioxide taken from the air if FFA fuel replaced it.

### DIESEL

Used per year

**352.4 million gal**

Profit margin at this site

**32%**

### GASOLINE

Used per year

**634.4 million gal**

Profit margin at this site

**27%**

### KEROSENE

Used per year

**126.9 million gal**

Profit margin at this site

**9%**

CO<sub>2</sub> taken from the air per year

**3.5 million tonnes**



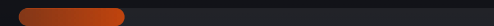
CO<sub>2</sub> taken from the air per year

**5.5 million tonnes**



CO<sub>2</sub> taken from the air per year

**1.2 million tonnes**



All three fuels, per year

**4.22 billion L · 1.11 billion gal**

CO<sub>2</sub> taken from the air if all replaced

**10.2 million tonnes**

## WHAT THAT CARBON IS EQUAL TO, EVERY YEAR

The fossil carbon that would no longer be added to the air if FFA fuel replaced these fuels at Sri Lanka levels of use.

### VEHICLES AND FOREST



**43.8 thousand**

**long-haul lorries**

Carbon avoided by replacing the diesel, every year



**1.2 million**

**passenger cars**

Carbon avoided by replacing the gasoline, every year



**44**

**jet aircraft, flying all year**

Carbon avoided by replacing the jet fuel, every year



**1.3 million**

**return flights London–New York**

Kerosene — passengers, one return trip each



**1.5 million ha**

**of forest to absorb it**

Planted forest needed to take up the same CO<sub>2</sub>

### LOCAL EFFECTS



**49%**

**of the country's fossil CO<sub>2</sub>**

Share of the national fossil CO<sub>2</sub> emissions



**3.1 million gal**

**of fuel displaced every day**

Fossil fuel no longer needed, every day of the year



**321**

**road tankers a day**

Fewer fuel deliveries by road and sea



**\$4.60 billion**

**a year spent on these fuels**

At the local pump price, money that could stay in the local economy



**0.45 t**

**of fossil CO<sub>2</sub> avoided per person**

Shared across the population

## INDUSTRY SCALE



**20%**

**a year of Toyota Group cars**

Compared with one year of driving all the vehicles sold



**31%**

**a year of Hyundai Motor Group cars**

Compared with one year of driving all the vehicles sold



**51%**

**a year of Ford cars**

Compared with one year of driving all the vehicles sold



**47%**

**a year of Airbus jets**

Compared with one year of flying all the jets delivered



**62%**

**a year of Boeing jets**

Compared with one year of flying all the jets delivered

These are approximations to give a sense of scale. The figures, factors and assumptions behind them are available on request from [info@fuelfromair.com](mailto:info@fuelfromair.com). Carbon is circular: the CO<sub>2</sub> taken from the air returns when the fuel burns, so the benefit is displacement of fossil carbon, not removal.