

# Generator Cost Comparison

## 10,000 Watt Natural Gas vs 10,000 Watt Diesel

### PURCHASE PRICE

	NATURAL GAS GENERATOR	DIESEL GENERATOR
<b>PURCHASE PRICE</b>	\$3,287.00	\$10,895.00
Lifetime Running Hours	1000 Hr	20,000 Hr
Cost Per Hour	\$3.29	\$0.55
Cost Per Day	\$78.96	\$13.20

### MAINTENANCE

Oil Change Period	100 Hr	500 Hr
Oil Filter Cost	\$7.95	\$4.96
Repair Costs (Annual / Anticipated)	\$300.00	\$50.00
Cost Per Day	\$2.74	\$0.38

### FUEL CONSUMPTION

Fuel Consumption Per Hour	107.05 ft <sup>3</sup>	0.449 gal
Fuel Cost (Natural Gas vs Off-Road Diesel)	\$0.0138 / ft <sup>3</sup>	\$2.43 gal
1 Day Fuel Cost (24 Hr)	\$35.45	\$26.19
1 Week Fuel Cost	\$248.15	\$189.33

\* Cost is based on U.S. Currency

\*\* Natural Gas for homes is taxed. Diesel for off-road use such as in a generator is tax-exempt. We use off-road diesel in our calculations. See additional information below

# Information

## Purchase Price / Generator Life

- Diesel engines are made of simpler and slower moving parts, so the mechanical pieces do not rub together as they do with gas generators. As such, diesel generators do not wear out as quickly. Diesel fuel is also the oil that lubricates the fuel system as it works. Gasoline, Natural Gas and Propane are solvents. Solvents dissolve oil. It is also the reason why many gas generators need an oil change every 100 hours and diesel ones every 500 hours.
- Natural Gas air-cooled home generators can last between 250 - 1000 running hours some have been known to last longer.
- Diesel Generators typically last between 20,000 and 80,000 running hours

## Installation Costs

- Natural gas standby generators typically require a higher volume gas meter than what's standard on many homes. Upgrading to a high volume gas meter averages about \$1,000 but varies depending on circumstances and local rates.
- The supply of gas needs to be piped to the generator from your meter and located near the electrical panel. If your natural gas or propane generator is not near your supply and electrical panel, additional work is required.
- Some utility companies do not charge for an upgraded meter. Natural gas generators use a lot of fuel and the profits from the sale of fuel cover the cost of the meter. You still have to pay for piping the gas to your generator.

## Fuel Consumption

- Diesel fuel is one of the most efficient and energy dense fuels available today.
- Diesel contains more usable energy than gasoline, propane or natural gas, so less of it is required to accomplish the same amount of work.
- Natural gas contains less energy than propane and gasoline.
- Many diesel engines can use biodiesel. Biodiesel is an alternative fuel similar to conventional or 'fossil' diesel that can be produced from straight vegetable oil, animal oil/fats, tallow and waste cooking oil.

## Fuel Price Data

- Off-road diesel is tax-exempt and reserved for use on off-road vehicles and generators. It is dyed red for legal identification. It is the same diesel fuel but costs less. We used this fuel in our calculations.
- You can save about \$0.25 per gallon if you purchase "off-road" diesel. It is the same fuel but it is not taxed as much since it's for off-road use in farms, construction and power generation for example. It has a red dye added to it so law enforcement can tell if it is being used illegally in on-road vehicles.
- U.S. Residential National Gas Price Data from [EIA.GOV](http://EIA.GOV) includes delivery charges.
- Natural Gas supplied to commercial customers cost a lot less than gas delivered to homes.
- More than half of your natural gas bill each month is for delivery charges.