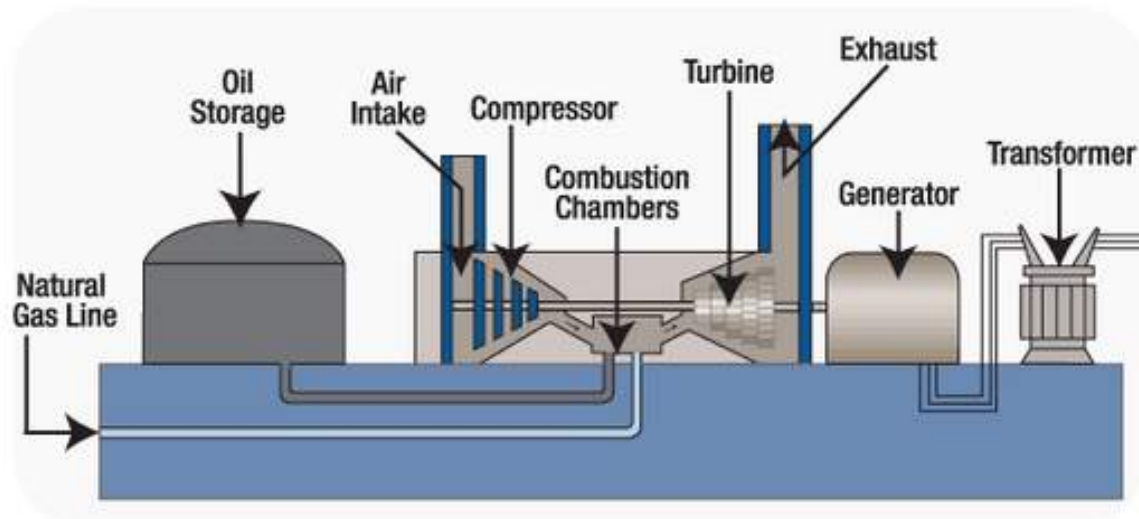


# How To Generate Electricity Using a Simple-Cycle Gas-Turbine Power Plant

**Plant efficiency range 35- 40 %**



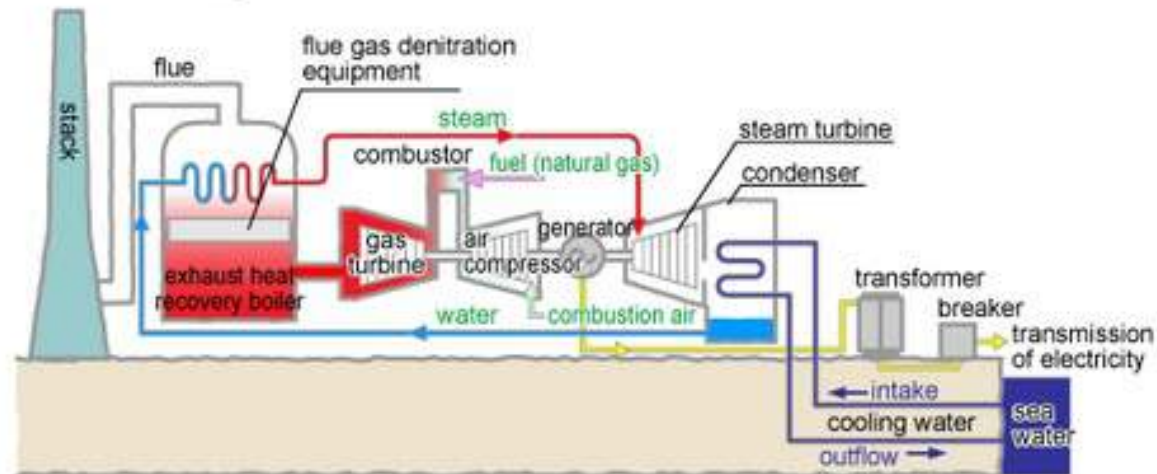
<https://www.energy.gov/fe/how-gas-turbine-power-plants-work>

<https://www.pinterest.com/pin/330029478920280845/>

# How To Generate Electricity Using a Combined-Cycle Gas-Turbine Power Plant

**Plant efficiency range 60-80 %**

## Combined Cycle Power Generation



<https://www.energy.gov/fe/how-gas-turbine-power-plants-work>

<https://www.rite.or.jp/system/en/learn-energy/energy-use/hatsuden/>

## Efficiency and Greenhouse Gas Emissions

- Generating electricity by burning natural gas is the **climate-dirtiest** way to do it, even with combined cycle, high efficiency generators.
- The Greenidge simple-cycle system is the **least efficient** way to generate electricity using natural gas.
- Greenidge has highest possible emission rate per bitcoin mined!

Climatic Change  
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LETTER

### **Methane and the greenhouse-gas footprint of natural gas from shale formations**

**A letter**

**Robert W. Howarth · Renee Santoro ·  
Anthony Ingraffea**