# Renewable Energy Technologies

*The goal of Cleanup Clean Air is to encourage, facilitate, and support diesel emissions and greenhouse gas reductions technologies and practices at Superfund cleanup and redevelopment sites.*

## How Can Superfund Reduce Greenhouse Gas Emissions?

**GENERATE** renewable energy on-site

**CONSERVE** energy by using energy efficient equipment and reducing energy use

**OFFSET** $CO_2$ emissions by purchasing renewable energy credits

**Calculate Emissions Reductions**
www.cleanerandgreener.org/resources/emission_reductions.htm

## What are Renewable Energy Sources?

Renewable energy is obtained from sources that are ess ntially inexhaustible. While fossil fuels are being depleted, renewable energy technologies provide a lasting source of energy. Renewable energy includes solar, wind, biomass, hydro, and geothermal sources. Energy from these sources can be used directly or converted into electricity.

## Why Use Renewable Energy?

- Environmental cleanup systems can operate for years to decades. For longer-term cleanup systems, like groundwater pump-and-treat systems, renewable energy technologies, such as solar panels, can help augment utility-power consumption.
- Choose renewable energy technologies for residential or commercial redevelopment projects to generate electric on-site.
- Using renewable energy technologies reduces pollution and greenhouse gases from the burning of limited fossil fuels.
- Harnessing renewable energy reduces dependence on foreign resources.

## What are Some Renewable Energy Technologies?

**Solar panels** on rooftops can provide a large amount of energy for a home or business and may make the electric meter run backwards; Cost: $8,000-$10,000 per kW

**Wind turbines** harness wind energy. A single medium sized wind turbine with good wind conditions can provide enough energy for eight 3-bedroom homes; Cost: $2,000-$7,000 per kW

**Landfill gas**-to-energy projects utilize methane produced from landfills to generate electricity and heat; Cost: ~$4,000 per kW

**Biomass** energy can come from plants or animal manure. Electricity can be generated from methane gas that is uced as the biomass decomposes; Cost: ~$3,500 per kW

## Funding Resources

Go to www.dsireusa.org for federal, state, and local tax credits and rebates for energy efficiency upgrades and renewable energy projects.