

# A Sustainable Energy Future

Not so long ago coal was everyone's favorite power source. In time, natural gas became more popular. Now the monetary and environmental costs of harvesting fossil fuels have begun to outweigh their benefits. It's time for the next big energy source to sweep onto the scene: Renewable Energy.

## Never-Ending Energy Sources

You've probably heard of solar energy and wind power. They're called renewable energy sources because they can't run out. But, there's a lot more to renewable energy than solar panels and wind turbines. Check out some different kinds of renewables.



Photo Credit: UC Davis

**Biofuel** turns plants, like corn and sugarcane – even grasses and woodchips – into fuel used in certain automobiles.



Photo Credit: Robert Lindor

**Hydropower** harnesses the energy of flowing water to drive turbines to produce electricity.



Photo Credit: Waste Management

As garbage decays, it releases methane. Trash companies capture that gas, chill it until it liquefies, and use **liquid methane** to power their trucks.



**Geothermal energy** captures heat escaping from deep inside Earth. It's most easily used where there are cracks channeling this heat to the surface.



**Solar Power** uses the energy of the sun to create thermal (heat) and electric energy.



Elephant Poop! At the Denver zoo, 90% of waste, from diapers to elephant poop, is converted to energy through **biomass gassification**.