

## BENEFITS OF RENEWABLE ENERGY

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- ⌘ Wind and solar have been the **fastest growing technologies for electricity generation**, according to the National Renewable Energy Laboratory. Wind capacity has grown 28 percent to 60 gigawatts in 2012, and solar photovoltaic panels are up 83 percent to 7.3 gigawatts compared to 2011.
- ⌘ Energy produced from renewable resources—unlike energy derived from fossil and nuclear fuel—incurs **no fuel costs** and wind and solar power use no water and are **carbon free and methane free**.
- ⌘ According to a Department of Energy study, if 80 percent of the country's electricity can be generated from renewable sources, global warming emissions from electricity production could be **reduced by approximately 81 percent**.
- ⌘ Wind farms use **very little land**. Less than one acre per megawatt is disturbed permanently, and the remainder of the land can be used for a variety of other productive purposes, including livestock grazing, agriculture, highways, and hiking trails
- ⌘ Although solar projects disturb more land than wind farms, according to a study by MIT, if solar provided one-third of Americans' electricity in 2050, it would require just 4,000-11,000 square kilometers of land, an area no larger than the amount of land **currently devoted to golf courses**.
- ⌘ Renewable energy projects bring **economic benefits** to rural areas including additional income streams for landowners; and increased tax revenues for local communities. By the close of 2014, there were 7.7 million jobs in the renewable energy industry, up from 6.5 million in 2013.
- ⌘ An analysis by the Union of Concerned Scientists found that reaching a 25 percent renewable energy standard by 2025 would create more than three times as many jobs as producing an equivalent amount of electricity from fossil fuels—resulting in a benefit of **202,000 new jobs in 2025**.
- ⌘ Wind and solar **costs are mostly upfront**. Since the fuel is free ongoing operating expenses are minimized, enabling wind farms to sign long-term supply agreements with utilities and private businesses at low fixed rates.
- ⌘ Wind and solar power will produce a **more reliable and resilient energy system** since they are spread out over a large geographical area and modular: a severe weather event in one location will not cut off power to an entire region.

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