

Solar Market Share

This section compares solar energy with other primary energy sources. The figures below illustrate global energy trends, including consumption and electricity generation. Some details about energy trends in the United States and European Union are offered.

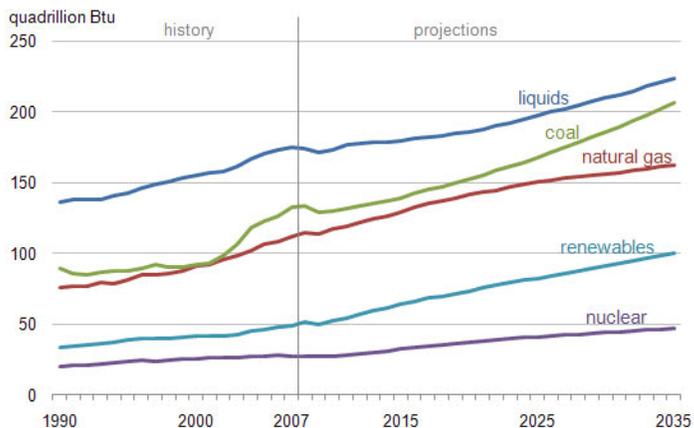
For a more detailed look at the solar industry in key markets around the world, consult our [Market Facts](#) [1] section and our regional downstream market [research](#) [2].

Global Energy Consumption

Global primary energy consumption decreased by 1.1% in 2009, the first decline since 1982. Consumption of oil, natural gas and nuclear power all fell, and consumption of coal remained about the same. Renewable forms of energy and hydroelectric output were the only increases. Despite the 2009 declines, world consumption of marketed energy from all fuel sources is expected to increase over the next 25 years.

Fossil fuels are expected to continue supplying much of the energy used worldwide. Although liquid fuels remain the largest source of energy, their share of world marketed energy consumption is projected to fall from 35% in 2007 to 30% in 2035. The decline is due to projected high world oil prices that lead energy users to switch away from liquid fuels when possible.

Figure: World Marketed Energy Use by Fuel Type (quadrillion Btu)



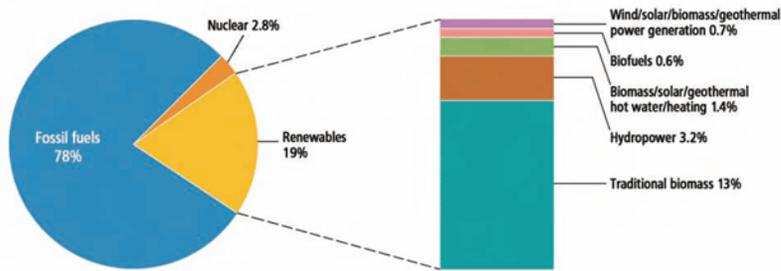
Source: US Energy Information Administration, *International Energy Outlook 2010 ? Highlights* <http://www.eia.doe.gov>[3] (November 2010)

Demand for Renewable Energy Sources

Renewable energy sources accounted for 19% of global energy demand in 2008, with traditional biomass accounting for the bulk of that demand. Hydropower is the second largest renewable power with a market

share of 2.3%.

Figure: Renewable Energy Share of Global Final Energy Consumption, 2008

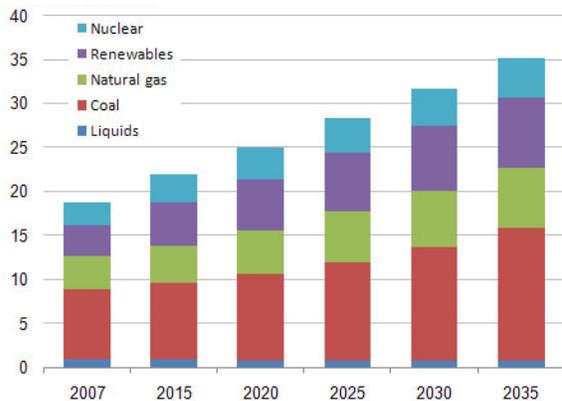


Source: REN21 Renewable Energy Policy Network for the 21st Century www.ren21.net^[4] (November 2010)

Global Electricity Generation and Capacity

Although the recession slowed the rate of growth in electricity demand in 2008 and 2009, growth is expected to return to pre-recession rates by 2015. The rapid increase in world energy prices from 2003 to 2008, combined with concerns about the environmental consequences of greenhouse gas emissions, has led to renewed interest in alternatives to fossil fuels, particularly nuclear power and renewable resources. Government incentives and higher fossil fuel prices continue to improve the prospects for generation from solar energy along with other renewable energy sources.

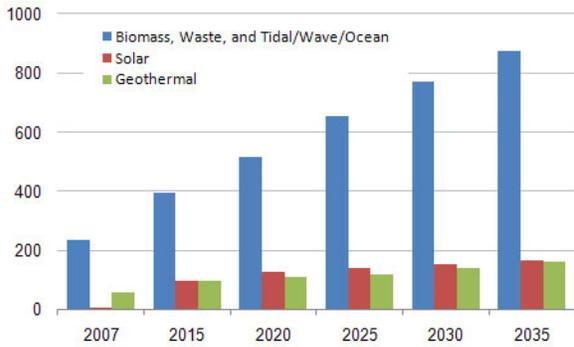
Figure: World Net Electricity Generation by Fuel (trillion kilowatt-hours)



Source: US Energy Information Administration, *International Energy Outlook 2010 ? Highlights* <http://www.eia.doe.gov/oiaf/ieo/highlights.html>^[3]

Much of the projected increase in renewable electricity supply is due to hydropower (54% of the projected increase) and wind power (26% of the projected increase). The chart below shows projected growth for other renewable technologies, excluding those two sources.

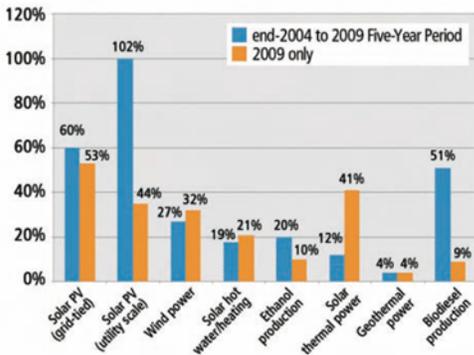
Figure: World Renewable Electricity Generation by Energy Source, Excluding Wind and Hydropower (billion kilowatt-hours)



Source: US Energy Information Administration, *International Energy Outlook 2010 ? Highlights*
<http://www.eia.doe.gov>^[3] (November 2010)

Renewable energy capacity was about 1230 GW in 2009, an increase of 7% over 2008 and about 25% of total global power generating capacity. Many renewable technologies experienced faster growth in 2009 as compared to the previous several years. More wind power capacity was added during 2009 than any other renewable technology. Grid-connected solar PV increased the fastest from the end of 2004 through 2009.

Figure: Average Annual Growth Rates of Renewable Energy Capacity, end-2004 to 2009



Source: REN21 *Renewable Energy Policy Network for the 21st Century*
www.ren21.net^[4] (November 2010)

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Links:

- [1] <http://www.solarbuzz.com/facts-and-figures/market-facts>
- [2] <http://www.solarbuzz.com/our-research>
- [3] <http://www.eia.doe.gov/oiaf/ieo/highlights.html>
- [4] <http://www.ren21.net/>