

THE WORLD ENERGY CHALLENGE... A GREAT OPPORTUNITY FOR the United States

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How much renewable energy do we use?

Americans used renewable energy sources—water (hydroelectric), geothermal, wind, sun (solar), and biomass—to meet about 7% of our total energy needs in 2007.

Renewable Energy Plays a Role in the Nation's Energy Supply (2007)

Total=101,605 Quadrillion Btu (Petroleum 40%, Nuclear Electric Power 8%, Natural Gas 23%, Coal 22%, Renewable Energy 7%)

Total =6,830 Quadrillion Btu (Solar Energy 1%, Hydroelectric 36%, Geothermal Energy 5%, Biomass 53%, Wind Energy 5%)

Note: Sum of components may not equal 100 percent due to independent rounding.
Source: EIA, Renewable Energy Consumption and Electricity Preliminary 2007 Statistics, Table 1: U.S. Energy Consumption by Energy Source, 2003-2007 (May 2008).

Source: Energy Information Administration
Last Updated: April 22, 2009

U.S. Market Growth in 2008

www.seia.org

- ✓ Overall 16% growth in capacity
 - ✓ 1,265 MW and MW_{th} added in 2008
 - ✓ Cumulative capacity now 9,183 MW and MW_{th}
- ✓ Overall 9% increase in annual capacity additions
 - ✓ 81% growth in on-grid PV installations
 - ✓ 50% growth in solar water heating installations
 - ✓ 3% decline in solar pool heating installations

*MW_{th}= collector area multiplied by 0.7 kW/m²

Source: SEIA, U.S. Solar Industry Year in Review 2008 | http://www.seia.org/publications/2008_year_in_review

Opportunities for Everyone

Figure 13.5. Direct Normal Solar Resources, Transmission, and Load Centers

U.S. Solar Market Trajectory

Market Sector	Current U.S. Market Price Range (\$/kWh)	Cost (\$/kWh) Benchmark 2005	Cost (\$/kWh) Target 2010	Cost (\$/kWh) Target 2015
Residential	5.8-16.7	23-32	13-18	8-10
Commercial	5.4-15.0	16-22	9-12	6-8
Utility	4.0-7.6	13-22	10-15	5-7

Source: Solar Energy Industry Forecast: Perspectives on U.S. Solar Market Trajectory, U.S. DOE Solar Energy Technologies Program May 30, 2008

Results of Good Public Policy...

Source: NREL

Boom and Bust
Government support for wind power has been essential. When a key incentive lapsed for parts of 2000, 2002 and 2004, investment collapsed.

Source: American Wind Energy Association

LONG-TERM POLICY NEEDED: An Federal Renewable Electricity Standard (RES) is needed to create a stable, U.S.-wide market for capital investment.

National Renewable Electricity Standard

With the right federal policies, the solar energy industry will become a robust economic engine for the United States – spurring billions of dollars in economic growth and creating tens of thousands of new jobs.

Aggressive federal programs, such as a National Renewable Electricity Standard with a solar carve out, will bring solar energy to price parity with traditional energy sources, saving consumers and businesses billions of dollars in energy costs.

Source: SEIA, http://www.seia.org/pdfs/2009/09/24/Mark_Parkinson_9.24.09.pdf



*Thank You,
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