

# SUN DAY CAMPAIGN

6930 Carroll Avenue, Suite #340

Takoma Park, MD 20912

301-270-NIRS, ext.23

[sun-day-campaign@hotmail.com](mailto:sun-day-campaign@hotmail.com)

## SUSTAINABLE ENERGY STUDY #14

Report Foresees U.S. Renewable Energy Supplying 635 GW of New Electric Generating Capacity by 2025 and Supplanting as Much as 40 Percent of U.S. Petroleum Products by 2030:

This first-of-a-kind report "2007 Joint Outlook on Renewable Energy in America," released on May 1, 2007 by the American Council on Renewable Energy (ACORE), details what's achievable with renewable energy technologies - given the appropriate policy mix. The landmark document presents a shared statement by the renewable energy community putting forth a scenario by which renewable energy could provide over 600 gigawatts (GW) of new electricity generating capacity by 2025 – a substantial contribution and potentially more than the nation's need for new capacity.

Wind power 248 GW

Solar energy and power 164 GW

Water power 23 GW

Geothermal energy and power 100 GW

Biomass energy, power, and fuels 100 GW

In addition, the report says that renewable fuels can serve a large portion of U.S. oil consumption needs. Recent studies suggest that biofuels could supply 30-40 percent of U.S. petroleum products by 2030.

In releasing the study, energy leaders call for steady, long-term commitments to renewable resources.

#####

2007 Joint Outlook on Renewable Energy in America:

Renewable energy is remaking how America meets its energy needs. Decision-makers and influencers on Wall Street, in boardrooms and policy forums are striving to keep pace. If renewable energy is to reach its full potential, America needs coordinated, sustained federal and state policies that expand renewable energy markets, promote and deploy new technology, and encourage renewable energy use in all critical market sectors. However, there has not been one resource that captures the essence of what is doable – until now.

ACORE has just published the first-ever "Outlook on Renewable Energy in America." The report dispels the commonly held notion that renewable energy cannot supply the energy needs of a growing American economy.

Coordinated by ACORE, the organizations leading the move to wider utilization of renewable resources in the U.S. project how the wind, solar, biofuels, biomass, ocean energy, geothermal and hydropower industries can meet the demand for cleaner energy and fuels. ACORE led this shared effort to help communicate what renewable energy is capable of achieving with the appropriate mix of policies and market-based incentives and standards

The report is not a forecast – it is a compilation of industry projections of what is achievable if the country wants it and is willing to embrace the public policies to make it happen. Those projections include supplying 635 GW of new electric generating capacity by 2025 and supplanting as much as 40 percent of U.S. petroleum products by 2030.

In addition, the report includes outlook reference material from the U.S. Department of Energy, Electric Power Research Institute, Energy Information Administration, National Renewable Energy Laboratory, and Western Governors' Association.

#####

Excerpts From Report:

Up to 635 GW of new renewable power capacity could be available by 2025, assuming development of biomass, geothermal, hydro, solar, and wind projects as envisioned by the respective industry groups. That amount is equal to roughly half of total U.S. generating capacity today, and represents substantially more than the additional electric power generating capacity needed by 2025.

#### Wind Power

Wind power is providing increasing capacity to electricity markets around the world. It is technically feasible to increase wind capacity to supply 20 percent of the U.S.'s electricity by 2030. Active "community wind" projects, as well as small distributed wind applications, will supplement large utility-scale projects. Offshore wind is expected to begin as early as 2010, and to increase thereafter.

This outlook foresees 340 GW of new wind capacity by 2003, reaching approximately 248 GW by 2025.

#### Solar Heat and Power

Solar energy is an abundant renewable resource across America, and can become a significant source of new generating capacity in a relatively short timeframe. The rapid scale-up of solar energy markets has been demonstrated in Japan, Germany, Spain and other countries.

The outlook for solar energy in the U.S. envisions 110 GW of new solar power capacity by 2016, resulting from a 67 percent compound annual growth rate. After a rapid growth through 2015, the solar market is foreseen to stabilize with 5 GW of photovoltaic (PV) and 1 GW of

concentrating solar power (CSP) added annually from 2016-2025, resulting in total solar capacity additions of 164 GW in 2025.

### Water Power

The water power technologies expected to contribute to this outlook are conventional hydropower, hydrokinetic power, and ocean energy which includes wave, current, tidal, marine biomass, and Ocean Thermal Energy Conversion (OTEC) power.

Conventional hydropower is already the leading source of renewable electric power capacity at over 75 percent of all renewable sites. Its quick, reliable load-following capacity and seasonable capacity can enhance the performance of other renewables by balancing variability in resources. In addition, the potential for power generation from ocean currents and tidal flow is tremendous. Plus, the new field of hydrokinetic power offers a wide range of distributed power generation options. Utilizing all the water power technologies, there is the potential to add 23 GW of capacity by 2025.

### Geothermal Heat and Power

Geothermal energy is poised to expand rapidly. It could contribute 100 GW of new capacity by 2025, tapping both identified resources and new discoveries in hydrothermal sites, co-production from oil and gas wells, and deep resources and engineered geothermal systems (EGS). Furthermore, geothermal energy for direct uses and heat pumps could provide significant additional energy not included in this total if policies support their growth.

The outlook for 100 GW of new geothermal capacity by 2025 assumes development of 20 GW from the hydrothermal resource base, development of 70 GW from co-production and geopressured resources, and 10 GW of deep geothermal sources and EGS systems.

### Biomass, Biofuels, and Bio-based Products

Biomass power projects could see a ten-fold increase from the current installed base of 10 GW. This increase would result in 100 GW of new biomass capacity by 2025.

Recent studies indicate that the U.S. agriculture and forestry industries have the potential to produce enough biomass resources to supplant 30-40 percent of current U.S. petroleum products while meeting food, feed, fiber, and export needs.

Today, 111 ethanol plants in 19 states have the capacity to produce 5.4 billion gallons of ethanol; by the first quarter of 2009, the industry's annual production capacity is estimated to reach 11.6 billion gallons per year - a significant contribution to the approximately 135 billion gallons of gasoline the U.S. consumes annually..

U.S. production of biodiesel fuels is on track to increase from 25 million gallons in 2004 to 226 million gallons in 2006; the industry envisions that biodiesel blends will displace 5 percent of the diesel fuel market by 2015.

#####

The ACORE news release announcing the issuance of this study can be found at [http://www.acore.org/news/07\\_ACORE\\_Press\\_Release\\_5\\_1\\_07\\_KG.html](http://www.acore.org/news/07_ACORE_Press_Release_5_1_07_KG.html)

More detailed information on both volumes of the outlook report can be found at <http://www.acore.org/theoutlook07.php>

Hard copies of the two-report set can be purchased from ACORE for \$95.00. See <http://www.acore.org> for details.

The 32-page "Volume II - Joint Summary Report" report can be viewed at [http://www.acore.org/pdfs/ACORE\\_Joint\\_Outlook\\_Report.pdf](http://www.acore.org/pdfs/ACORE_Joint_Outlook_Report.pdf)