

## SOLAR, WIND, AND BIOFUELS GLOBAL MARKETS SURGE 35 PERCENT TO \$188.1 BILLION IN 2010

Clean Edge's 10<sup>th</sup> Anniversary Clean Energy Trends Report Finds Solar and Wind Grew an Average 40 and 30 Percent Annually over Past Decade

Portland, Ore./Oakland, Calif. – March 14, 2011 – The overall trend for the clean-energy market continued to be one of growth and expansion in 2010. Combined global revenue for solar PV, wind power, and biofuels surged 35.2 percent over the prior year, growing from \$139.1 billion to \$188.1 billion, according to the *Clean Energy Trends 2011* report issued today by Clean Edge Inc., a research and advisory firm devoted to the clean-tech sector. The bulk of this expansion came from a more than doubling in global solar PV installations and steady growth in the biofuels sector. For the first time since Clean Edge began tracking the wind power sector, however, the global wind market witnessed a slight year-over-year decline in market size, in both overall dollars and installations.

This year's report represents a full decade of Clean Edge data and trends analysis. Ten years ago, Clean Edge released *Clean Tech: Profits and Potential*, the firm's first publication. This year's special anniversary edition looks at the past 10 years of clean-energy activity in the U.S. and abroad. The full report can be downloaded for free at www.cleanedge.com.

According to Clean Edge research, the global market for solar photovoltaics (PV) has expanded from just \$2.5 billion in 2000 to \$71.2 billion in 2010, representing a compound annual growth rate

(CAGR) of 39.8 percent. The global market for wind power has similarly expanded from a global market worth \$4.5 billion in 2000 to more than \$60.5 billion today, for a CAGR of 29.7 percent.

"As witnessed over the past decade, clean tech has proven to be a significant business opportunity, and its growth rates now rival that of earlier technology revolutions like telephony, computers, and the Internet," said Ron Pernick, Clean Edge co-founder and managing director. "We expect overall growth to slow down in some sectors as the clean-energy market reaches wide adoption and utility-scale deployment, but there's still considerable room for expansion."

Clean Energy Trends 2011 includes growth projections for the major clean-energy sectors (solar PV, wind, and biofuels), as well as analysis of global clean-tech investment and trends. The report's key findings include:

- Biofuels (global production and wholesale pricing of ethanol and biodiesel) reached \$56.4 billion in 2010 and are projected to grow to \$112.8 billion by 2020. In 2010, the biofuels market consisted of more than 27.2 billion gallons of ethanol and biodiesel production worldwide, up from 23.6 billion gallons in the prior year.
- Wind power (the capital cost of new installation) is projected to expand from \$60.5 billion in 2010 to \$122.9 billion in 2020. Last year's global wind power installations declined slightly to 35.2 gigawatts (GW), down from a record 37.5 GW the prior year.
  China, the global leader in new installations for the third year in a row, continued to see strong growth with total new installations of more than 16 GW, an increase of 27 percent. The

- U.S., the world's second-largest market, declined after record growth in 2009, adding only half as much capacity as the prior year with just 5 GW installed in 2010.
- Solar photovoltaics (including modules, system components, and installation) are projected to grow from a \$71.2 billion industry in 2010 to \$113.6 billion by 2020. New installations reached more than 15.6 GW worldwide in 2010, a more than doubling from 7.1 GW in 2009, representing the largest year-over-year increase on record.
- According to data provided by the Cleantech Group, U.S.-based venture capital investments in clean tech increased 46 percent from \$3.5 billion in 2009 to \$5.1 billion in 2010. Clean Edge analysis found that clean-tech's percentage of total U.S. venture capital investments continued to rise, accounting for a record 23.2 percent of total U.S. venture activity in 2010.

The report also outlines five key trends that will impact clean-energy markets in the coming years:

- 1) Incandescent Phase-Out Lights the Way for Low-Cost LEDs
- 2) Natural Gas Advances as a Powerful Partner for Wind and Solar Energy
- 3) Cleaner Aviation Fuels are Poised for Takeoff
- 4) Low-Cost Green Building Brings Relief and Sustainability Around the World
- 5) Innovation Provides Alternatives to Rare Earths

## About Clean Energy Trends 2011

Clean Edge issues its annual *Clean Energy Trends* report to track key developments in clean-energy markets. Past reports have been downloaded by tens of thousands of individuals in government, finance, industry, and the media. *Clean Energy Trends 2011* is made possible by the support of its sponsors, including premier sponsors Autodesk, Cascadia Capital, Deloitte, and Hobbs & Towne, and major sponsors E2, Mintz Levin, and Stoel Rives.

## About Clean Edge, Inc.

Clean Edge, the world's first research and advisory firm devoted to the clean-tech sector, delivers comprehensive clean-tech insights to corporations, investors, governments, entrepreneurs, and other key stakeholders. The company integrates timely clean-tech data from dozens of sources with expert analysis to provide critical insights to its clients and subscribers. The firm's offerings include the *U.S. Clean Energy Leadership Index* and related advisory services, industry-leading sponsored reports, the annual Clean-Tech Investor Summit conference (coproduced with IBF), and benchmark clean-tech stock indices with NASDAQ. To keep abreast of the latest clean-tech trends or learn more about our services, visit www.cleanedge.com.

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