



2012 MARKS RECORD YEAR FOR GLOBAL SOLAR, WIND, AND BIOFUELS DEPLOYMENT

Clean Edge's Annual Trends Report Finds Increased Deployment, But Global Market Value Increases Only Slightly, Up 1 Percent, to \$249 Billion

Portland, Ore./Oakland, Calif., March 12, 2013 – Although 2012 proved to be an unsettling and difficult year for clean energy, the fundamental global market drivers for clean technology remained largely intact, according to the *Clean Energy Trends 2013* report issued today by clean-tech research and advisory firm Clean Edge, Inc.

The report found that lower prices for many clean-tech goods and services, combined with a renewed focus on scalable projects, resulted in record annual solar, wind, and biofuels deployment. Against this continued expansion, however, combined global revenue for solar PV, wind power, and biofuels expanded just one percent, from \$246.1 billion in 2011 to \$248.7 billion in 2012. This marginal growth was one of the many consequences of rapidly declining solar PV prices.

The full report can be downloaded for free at www.cleandedge.com.

“2012 was a year of extreme uncertainty for clean energy markets, as venture investors pulled back and high-profile bankruptcies became a partisan wedge in the presidential election, all while climate disruptions brought clean tech back into the limelight,” said Ron Pernick, Clean Edge co-founder and managing director. “But a key lesson emerged from last year – the focus for investors and industry for the near- to mid-term will be on deployment.”

The *Clean Energy Trends 2013* report's key findings include:

- Biofuels (global production and wholesale pricing of ethanol and biodiesel) reached \$95 billion in 2012, up from \$83 billion the previous year. From 2011 to

2012, global biofuels production expanded from 27.9 billion gallons to 31.4 billion gallons of ethanol and biodiesel.

- Wind power (new installation capital costs) expanded to \$73.7 billion in 2012, up from \$71.5 billion the previous year. Global wind capacity additions totaled 44.7 GW (gigawatts) in 2012, a record year led by more than 13 GW added in both China and the U.S., and an additional 12.4 GW of new capacity in Europe.
- Solar PV (including modules, system components, and installation) decreased from a record \$91.6 billion in 2011 to \$79.7 billion in 2012. While total solar market revenues fell 19 percent – the first PV market contraction in *Clean Energy Trends'* 12-year history – global installations expanded to a new record of 30.9 GW. While only five years ago PV was being installed at roughly \$7 per peak watt, today projects can be completed at closer to \$2.50 per peak watt globally.
- Together, Clean Edge projects these three sectors will nearly double from \$248.7 billion in 2012 to \$426.1 billion within a decade.
- Venture capital investments in U.S.-based clean technology companies totaled \$5 billion in 2012, falling 26 percent from \$6.6 billion in 2011, according to data provided by Cleantech Group. Clean tech's decline, however, matched a similar downward trend for total VC investment, with clean-tech investments still representing nearly one-fifth of all VC activity in the U.S.

Increased financing from deep-pocketed traditional energy and technology players reflects the move away from early-stage capital towards on-the-ground deployment. In early 2013, Warren Buffett's MidAmerican Energy Holdings expanded its solar portfolio with a whopping \$2 billion acquisition of the Antelope Valley Solar Projects in Southern California. Google's recent \$200 million equity investment in a Texas wind farm pushed the tech giant's ownership in solar and wind projects to a combined 2 GW. And in January 2013, car rental giant Avis Budget Group announced its plan to buy car-sharing pioneer ZipCar for \$500 million.

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

1. Smart Devices and Big Data Empower Customers, Open New Chapter in Energy Efficiency
2. Distributed Solar Financing Comes of Age
3. Under the EV Radar, Microhybrid Technology Saves Big on Fuel Consumption
4. In the U.S. and Overseas, Geothermal Picks up Steam
5. Perfectly Natural: Biomimicry Makes its Mark on Clean Tech

About *Clean Energy Trends 2013*

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 2013* is made possible by the support of its sponsors including premier sponsors Autodesk, Chubb, Grant Thornton, Mintz Levin and major sponsors APCO Worldwide, Cascadia Capital, and E2.

About Clean Edge, Inc.

Clean Edge, Inc., founded in 2000, is the world's first research and advisory firm devoted to the clean-tech sector. For more than a decade the firm has delivered timely data, expert analysis, and comprehensive insights to key industry stakeholders. The company offers an unparalleled suite of index, benchmarking, and advisory services, including the *State Clean Energy* and *U.S. Metro Clean Tech Indexes*, sponsored reports including its flagship *Clean Energy Trends* series, and clean-tech stock indexes with NASDAQ[®]. To keep abreast of the latest clean-tech trends or learn more about Clean Edge's services, visit www.cleandedge.com.

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