

2010 Clean Energy Investment Hits a New Record

By RenewableEnergyWorld.com Editors | January 11, 2011

Surprise, surprise: The 800-pound dragon in the room, China, has propelled global clean energy investment to record levels.

London -- Bloomberg New Energy Finance released 2010 investment figures this week. Although certain sectors like wind and biofuels had a rough year in some countries, the overall trends in project finance, venture capital and supply-chain investments were very positive.

According to [BNEF](#), new global investment in clean energy reached \$243 billion in 2010, up from \$186.5 billion in 2009. Last year's investment figures double those from 2006. The main factors in this growth were the massive Chinese market, the expansion of offshore wind, hot European solar markets and global R&D.

"This is a spectacular result, beating previous record investment levels by a clear margin of more than \$50bn, said BNEF founder and CEO Michael Liebrich. "It flies in the face of skepticism about the clean energy sector among public market investors."

Here's a breakdown of the investment figures, as reported by BNEF in its latest analysis:

- Investment in small-scale, distributed generation projects surged by 91% last year to \$59.6bn, with the dominant element rooftop and other small-scale solar projects, notably in Germany but also in the US, the Czech Republic, Italy and elsewhere.
- Investment in China was up 30% to \$51.1bn in 2010, by far the largest figure for any country. In 2009 Asia and Oceania overtook the Americas, and in 2010 it narrowed the gap further on Europe, Middle East and Africa as the leading region of the world for clean energy investment.
- Offshore wind finance had another good year in 2010, led by a \$1.7bn package to fund the next, 295MW phases of the Thornton Bank offshore wind farm off the coast of Belgium, and a \$1bn deal to finance the Borkum West II project in German waters.
- Research and development spending on clean energy technologies by companies and governments grew to a record level in 2010, according to Bloomberg New Energy Finance data. Within this, the main constituent was government R&D, which reached \$21bn, up from \$15.8bn in 2009, while corporate R&D recovered from 2009's recession-hit figure of \$12.8bn, to reach \$14.4bn, giving a total for global clean energy R&D of \$35.5bn.
- Venture capital and private equity investment had a strong year, up 28% from the 2009 total to reach \$8.8bn, though failing to match 2008's record figure of \$11.8bn. Among the private equity deals of 2010 were a \$400m financing for US wind project developer Pattern Energy Group, and \$350m for Better Place, the US-based electric vehicle charging network specialist.
- Public market investment bounced back from its recession-driven lows in 2008 and 2009, up 18% to \$17.4bn in 2010. This was not a record figure - it fell short of the \$24.6bn clean energy

companies raised on stock markets in 2007. Among the biggest deals in this category in 2010 were the \$3.5bn initial public offering in November by Enel Green Power of Italy, and the \$1.1bn flotation by Chinese wind turbine maker Xinjiang Goldwind Science & Technology in Hong Kong in October. It is notable that this transaction level took place despite the lacklustre performance of clean energy shares during 2010, with the NEX index dropping 14.6% and underperforming the S&P 500 by more than 20% over the year.

- The largest investment asset class in 2010 was, as usual, asset finance of utility-scale projects such as wind farms, solar parks and biofuel plants. This rose 19% to \$127.8bn last year.

In terms of sector, the most notable feature of 2010 was the 49% growth in investment in solar power to \$89.3bn, driven largely by distributed generation projects in Europe, where investment grew 91% last year to \$59.6bn as already noted. Bloomberg New Energy Finance estimates that 86% of investment in small-scale solar took place in markets where feed-in tariffs have been introduced.

Overall investment in wind gained 31% to reach \$96bn. It is notable that 38% of this total was accounted for either by China or by large European offshore wind farms.

Energy-smart technologies such as smart grid, energy management, electric vehicles and power storage also had a strong year, with financing of companies in this sector reaching a record \$23.9bn, up 27% on 2009.

In the other sectors, biofuels had almost a flat year, with overall investment down slightly to \$7.9bn from \$8.1bn in 2009 and far below the record of \$20.9bn set in 2006 during the US's corn-based ethanol bubble. Biomass and waste-to-energy was also flat, at \$11.6bn, compared with \$12bn in 2009.

BNEF estimates that investment levels will need to reach \$500 billion per year by 2020 in order to stabilize greenhouse gas emissions. While there is much work to be done in getting to that target, the substantial increase in 2010 is a big step in the right direction.