THE PEW ENVIRONMENT GROUP

CLEAN ENERGY
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WHO'S WINNING THE CLEAN ENERGY RACE?

Growth, Competition and Opportunity in the World's Largest Economies

THE GLOBAL CLEAN ENERGY ECONOMY AT A GLANCE

Five-Year Surge in Clean Energy Investment: From 2005 to 2009, clean energy investments increased 230 percent globally. In the past two years, G-20 members invested an average of $32 billion each quarter in the sector. Installed renewable energy capacity in 2009 increased to 250 gigawatts (GW), enough to power about 75 million households and equivalent to 6 percent of total worldwide energy generation.

Clean Energy Economy Weathers the Global Financial Crisis: In 2009, more than $162 billion was invested globally in clean energy. Despite the global economic downturn, that figure declined only 6.6 percent from 2008. Moreover, the clean energy sector outperformed the oil and gas industry, which had an investment decline of 19 percent in 2009, according to the International Energy Agency's 2009 *World Energy Outlook*.

G-20 Countries Dominate the Clean Energy Economy, Compete for Leadership: G-20 countries account for more than 90 percent of all clean energy finance and investment. Countries with strong policy frameworks (China, Germany, Spain and Brazil, for example) have the strongest clean energy sectors relative to the size of their economies, while those with weaker policy frameworks (such as the United States, Japan, Australia and South Africa) lag behind their G-20 counterparts.

Countries Prioritize Clean Energy in Recovery Strategies: Globally, stimulus plans targeted $184 billion for clean energy, led by the United States ($67 billion) and China ($47 billion). The full impact is ahead: In 2009, less than 10 percent of these funds reached the clean energy sector; two-thirds of the stimulus funding is projected to be spent during 2010 and 2011.

Asian Investment Soars in 2009: Clean energy investment in Asia increased 37 percent in 2009 to $39.02 billion. Strong demand for wind power in China and the ready availability of credit in Asian markets drove growth in the region. By contrast, investment declined 33 and 16 percent, respectively, in the Americas and Europe as the economy slowed, energy demand sagged and credit markets tightened.

2009 Venture Capital Investments Dropped More than 40 Percent: Venture capital investments in 2009 fell more than 40 percent to $6.4 billion. The United States still dominated this asset class, accounting for 60 percent of all venture capital/private equity financing.

Estimated $200 Billion to Be Invested in 2010 on Energy, Climate and Jobs: The ongoing priority for energy security, global warming pollution reduction and jobs creation will drive investment up 25 percent to a record $200 billion in 2010, according to Bloomberg New Energy Finance, a provider of data and analysis on clean energy and carbon market finance.

G-20 COUNTRY COMPETITIVENESS SNAPSHOTS

CHINA

With clean energy investments up more than 50 percent in 2009, China took the lead among G-20 nations for the first time by attracting $34.6 billion in investment and finance. Ambitious, mandatory targets for wind and solar power and the ample availability of credit in China have been the primary engines of that nation's clean energy growth. Having built a strong manufacturing base and export markets, China is working to meet domestic demand by installing substantial new clean energy generating capacity to achieve its renewable energy targets.

UNITED STATES

The United States closed 2009 by attracting total clean energy investments of $18.6 billion, losing the top spot in the G-20 for the first time in five years. The economic recession and investor uncertainty about tax incentives early in the year slowed investments, which were down 40 percent from 2008. State renewable energy standards and federal enactment of longer-term production and investment tax credits in February 2009 spurred substantial investments later in the year. The United States continued to dominate venture capital/private equity investments associated with technology innovation. Investors continue to look to Congress, however, to pass comprehensive climate and energy legislation that will provide long-term certainty for investment.

UNITED KINGDOM

Large offshore wind deals backed by the government put the United Kingdom in third place in the G-20, with 2009 investments of $11.2 billion. The U. K. also was at the forefront of marine energy investments.

SPAIN

Within the European Union, Spain remained a clean energy leader with 2009 investments of more than $10 billion, much of it in solar energy. Spanish budget constraints forced cutbacks in incentive programs, which significantly curtailed 2009 investments and will likely continue to do so.

BRAZIL

Brazil, poised for significant growth in wind energy investments, stood out as a G-20 leader by attracting $7.4 billion for clean energy in 2009.

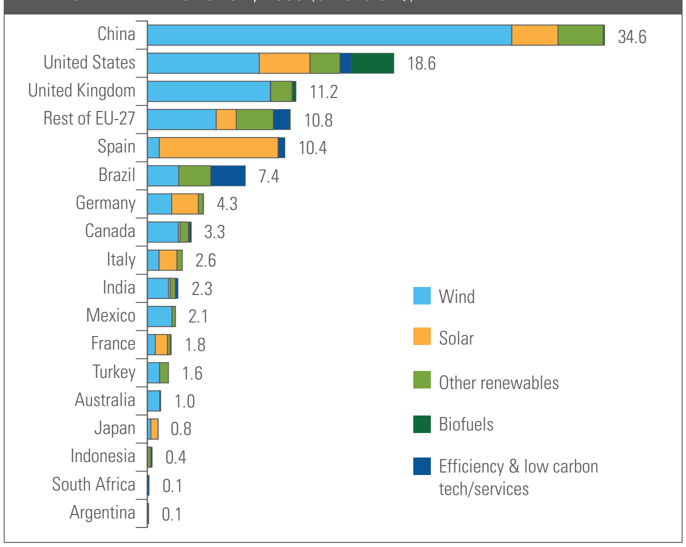
GERMANY

Germany remained a clean energy stalwart in manufacturing and installed capacity, especially in the solar sector. Overall, Germany invested $4.3 billion in clean energy in 2009.

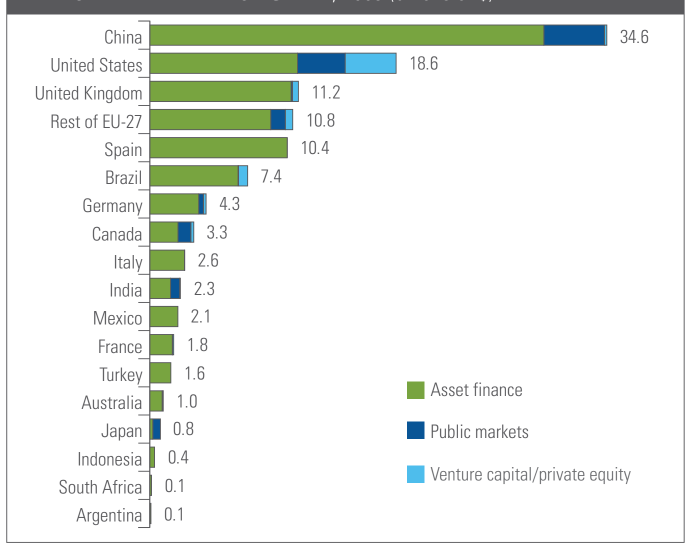
EUROPEAN UNION

EU carbon policies gave European renewable energy markets an early start, and investment and installed capacity continued at a steady pace across Europe.

INVESTMENT BY SECTOR, 2009 (billions of $)



INVESTMENT BY FINANCING TYPE, 2009 (billions of $)



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