WHO'S WINNING THE CLEAN ENERGY RACE?

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G-20 INVESTMENT POWERING FORWARD

THE PEW CHARITABLE TRUSTS

the CleanEnergy Economy

Repowering Jobs, Businesses and Investments Across America

EXECUTIVE SUMMARY

The clean energy race is on. The investment and finance data presented in this report show that countries are jockeying for a leadership position in this growing and increasingly competitive sector. Countries with clear, consistent and constructive clean energy policies are powering investment forward.

This report examines key financial, investment and technological trends related to clean energy in the world's leading economies, also known as the Group of Twenty (G-20). Our primary focus is on investment, which is the fuel that propels the innovation, commercialization, manufacturing and installation of clean energy technologies. The data have been compiled and reviewed by Pew's research partner, Bloomberg New Energy Finance, a market research firm focused on renewable energy.

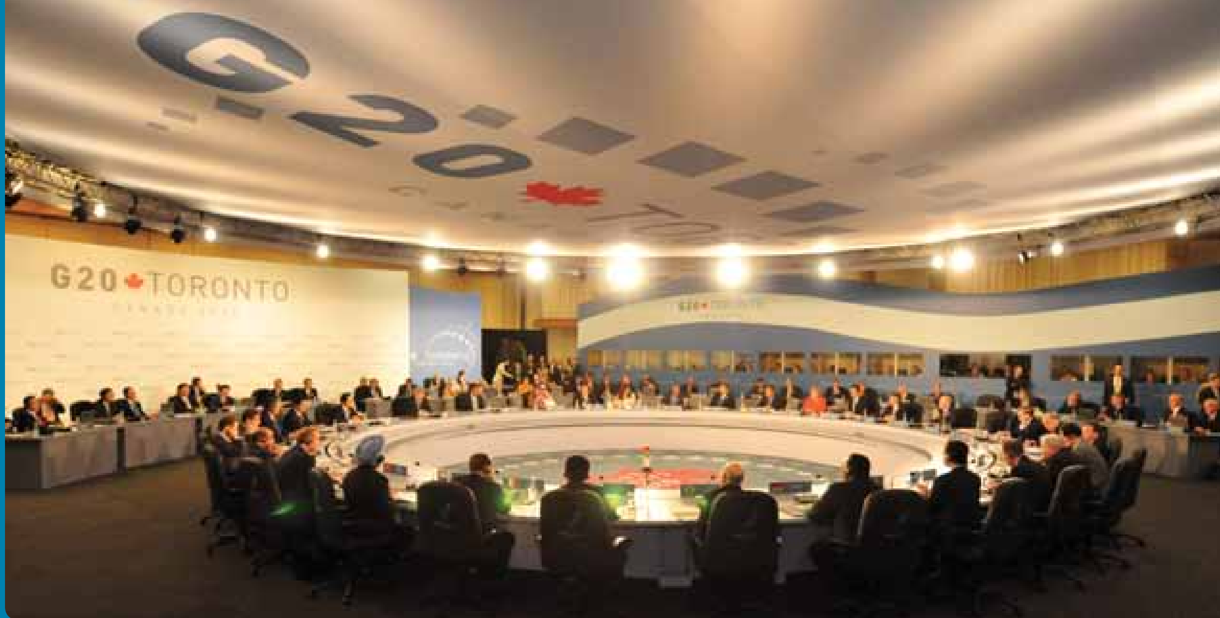
Our research shows that the clean energy sector around the world has roared back from flat recessionary levels, increasing 30 percent from 2009 to achieve a record $243 billion[1] worth of finance and investment in 2010. More than 90 percent of all clean energy investments were directed to companies and projects in the G-20. Excluding research and development funding, clean energy finance and investment in the G-20 countries totaled $198 billion, 33 percent more than was invested in 2009.

Collectively, the European region was the leading recipient of clean energy finance, attracting a total of $94.4 billion. Europe's leadership position was solidified by more than 100 percent growth in investment in small-scale solar installations in Germany and Italy. Rising among the ranks of top-10 countries for private clean energy investment, Germany and Italy attracted $41.2 billion and $13.9 billion, respectively.

Although small-scale solar energy investments helped Europe maintain its position as the leading region for clean energy finance in 2010, the Asian region is closing the gap rapidly and is expected in the coming months and years to become the center of gravity for clean energy investment. Overall clean energy investment in the Asian region increased 33 percent to $82.8 billion in 2010.

Asia/Oceania's emergence is fueled in large part by the rapid rise of China as the world's clean energy superpower. Private investment in China's clean energy sector increased by 39 percent in 2010 to a world

[1] All monetary values are 2010 United States dollars (USD) unless otherwise noted. This figure includes all investment – public and private (including research and development) and G-20 as well as non-G-20 countries.



The British Prime Minister's Office

record $54.4 billion. China also is the world's leading producer of wind turbines and solar modules. In 2009, it surpassed the United States as the country with the most installed clean energy capacity.

The Americas region is a distant third in the race for clean energy investment, attracting $65.8 billion overall in 2010. Investments in the United States rebounded 51 percent over 2009 levels to reach $34 billion, but the United States continued to slide down the top 10 list, falling from second to third. Given uncertainties surrounding key policies and incentives, the United States' competitive position in the clean energy sector is at risk. Growth is sharper in Latin America, where private clean energy investment in Argentina increased by 568 percent and in Mexico by 273 percent, the highest growth rates among G-20 members.

Technologically, 2010 investments notably increased for solar energy, particularly for small-scale and residential projects. In the G-20, a record $79 billion was invested by the private sector in solar technologies, facilitating the installation of more than 17 gigawatts (GW) of new generating capacity. Compared with 2009, solar energy investments in 2010 increased by 53 percent, while investments in the wind sector increased by a more modest 34 percent. Still, wind energy remains the favored technology for private investment in the G-20 countries, accounting for 48 percent of total investments, or $95 billion.

Clean energy funding allocated by governments to help stimulate growth in response to the global economic recession rose sharply in 2010 to $75 billion, from $20 billion the prior year. Corporate and government research and development funding increased globally by 24 percent to $35 billion. Venture capital/private equity funding in the G-20 also rebounded strongly in 2010, up 26 percent over the previous year to $8.1 billion. Investment in G-20 small-scale distributed capacity rose 100 percent in 2010 to $56.4 billion.[2]

Installation of 40 GW of wind and 17 GW of solar helped drive worldwide clean power generating capacity to 388 GW in 2010.

This report documents the continued growth and dynamism of clean energy investment in the world's leading economies. It follows recent Pew research showing that policy priority for clean energy is well-placed: Investment in clean power assets alone could reach $2.3 trillion over the 2010-20 period.[3] Countries that succeed in attracting investment can realize the economic, security and environmental benefits of the global race to harness clean, renewable energy sources.

[2] Small-scale distributed capacity investments refers to solar projects of less than 1 megawatt (MW).
[3] Global Clean Power: A $2.3 Trillion Opportunity, The Pew Charitable Trusts, December 2010. www.PewEnvironment.org/CleanEnergy

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