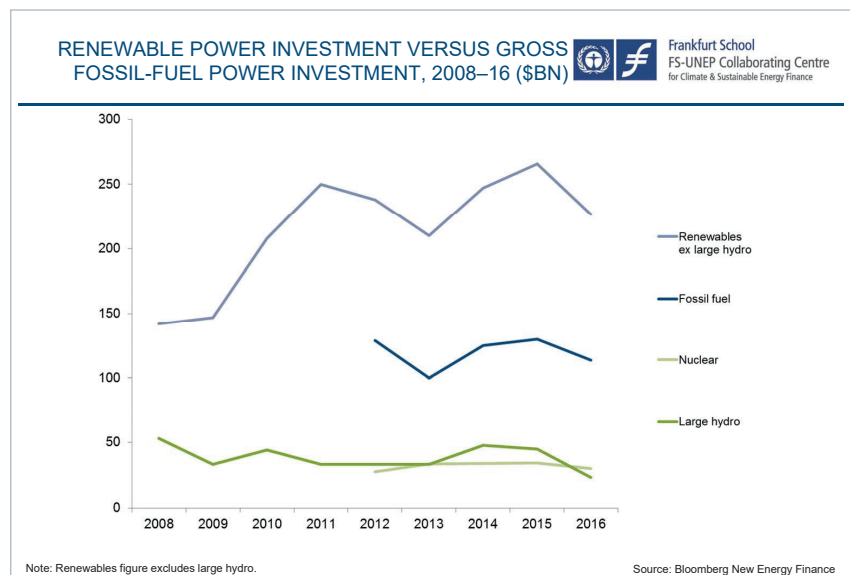




Renewable Energy Investments: Mobilizing Private and Public Investments against Climate Change

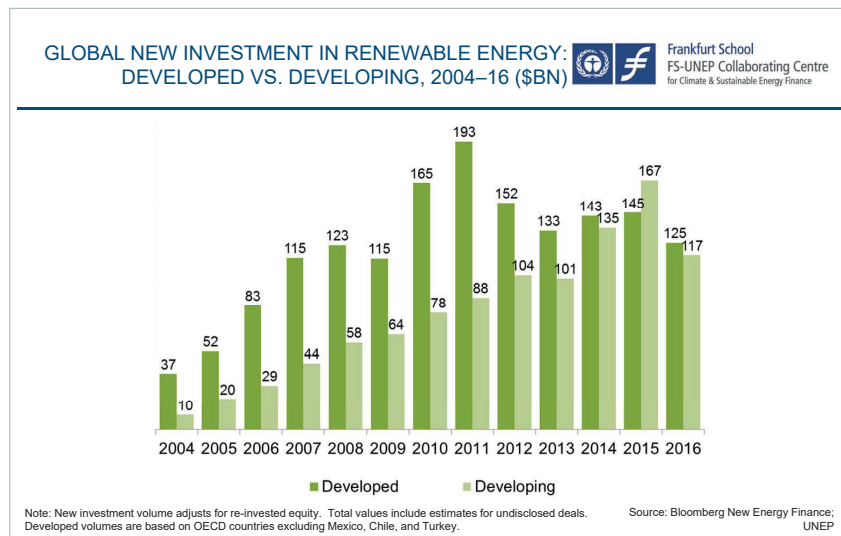
Renewable energies (RE) are widely considered to be the most important pillar in efforts to mitigate greenhouse gas emissions globally. To evaluate progress in transitioning to a low-carbon economy, the German Federal Ministry for the Environment (BMUB) supports an annual analysis of global trends in renewable energy investment, prepared by the Frankfurt School-UNEP Collaborating Centre for Climate & Sustainable Energy Finance, the United Nations Environment Programme (UNEP) and Bloomberg New Energy Finance (BNEF).

The last edition “Global Trends in Renewable Energy Investment 2017” indicated that in 2016 the advance of renewable energy had slowed in one respect but had speeded up in another. Investments in renewable energy fell by 23% to \$241.6 billion, but new capacity installed increased from 127.5GW in 2015 to a record 138.5GW in 2016. New renewable sources of power, including wind, solar, biomass and waste, geothermal, small hydro and marine, jointly accounted for 55.3% of total new power generation added worldwide in 2016. On a less positive note, slowing activity was observed in the two key markets of China and Japan.



Selected highlights

- “More for less” was the story of renewable energy in 2016. Global new investment in renewables excluding large hydro fell the lowest total since 2013, but there was record installation of renewable power capacity worldwide in 2016. Wind, solar, biomass and waste-to-energy, geothermal, small hydro and marine sources added 138.5GW, up from 127.5GW in the previous year.
- The 2016 gigawatt figure was equivalent to 55% of all the generating capacity added globally, the highest proportion in any year to date. Investment in “new renewables” capacity was roughly double that in fossil fuel generation in 2016, for the fifth successive year. The proportion of global electricity coming from these renewable sources rose from 10.3% in 2015 to 11.3% in 2016, and prevented the emission of an estimated 1.7 gigatonnes of CO₂.
- Among developed economies, the US saw commitments slip 10% to \$46.4 billion, as developers took their time to expand projects to benefit from the five-year extension of the tax credit system. Europe enjoyed a 3% increase to \$59.8 billion, led by the UK on \$24 billion and Germany on \$13.2 billion, down 1% and 14% respectively. Japan slumped 56% to \$14.4 billion.
- Europe’s investment owed its resilience to record commitments to offshore wind, totalling \$25.9 billion, up 53% thanks to final investment decisions on mega-arrays such as the 1.2GW Hornsea offshore wind project in the UK North Sea, estimated to cost \$5.7 billion. Not all of 2016’s offshore wind boom was in Europe – China invested \$4.1 billion in the technology, its highest figure to date.
- Overall, renewable energy investment in developing countries fell 30% to \$116.6 billion, while investment in developed economies dropped 14% to \$125 billion. China saw investment plunge 32% to \$78.3 billion, breaking an 11-year rising trend. Mexico, Chile, Uruguay, South Africa and Morocco all saw falls in investment of 60% or more, due to a mixture of scheduled breaks and delays with auction programmes and financing. Jordan was one of the few new markets to buck the trend, with investment there rising 148% to \$1.2 billion.
- New investment in solar in 2016 totalled \$113.7 billion, down 34% from the all-time high in 2015, due in large part to sharp cost reductions – and to real slowdowns in activity in two of the largest markets, China and Japan. India saw the construction of the Ramanathapuram solar complex in Tamil Nadu, billed as the world’s largest ever PV project at some 648MW. Wind followed closely behind solar, at \$112.5 billion of investment globally, down 9% despite the boom in offshore projects. However, while solar capacity additions rose in the year to a record 75GW, sharply up from 56GW, wind capacity additions fell back to 54GW in 2016 from the previous year’s high of 63GW.



The full report and complementary papers (press release, executive summary, charts) can be downloaded free of charge:

<http://fs-uneep-centre.org/publications/global-trends-renewable-energy-investment-2017>

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