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Renewables to Account for a Third of Global Power Generation in 2022

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This year's renewable energy report from the International Energy Agency confirms what many watching the industry already know: clean energy prices have taken a nosedive, upping

competition and uptake of new technologies.

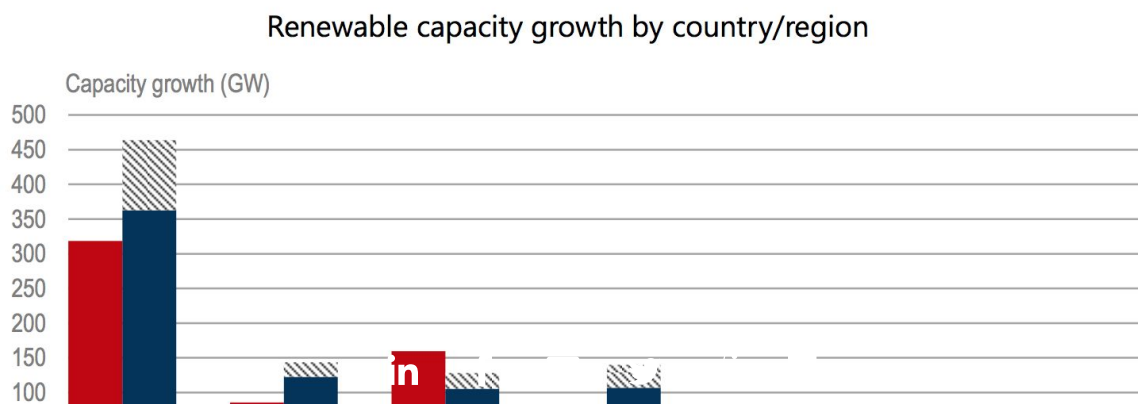
Clean energy will grow by about 1,000 gigawatts in the next five years, according to the International Energy Agency's projection. That production will be equal to about half the globe's coal power capacity, in a fraction of the time it took to build all that coal power. By 2022, clean energy will account for a third of power generation at 8,000 terawatt-hours, or enough to meet the current electricity demands from China, India and Germany combined.

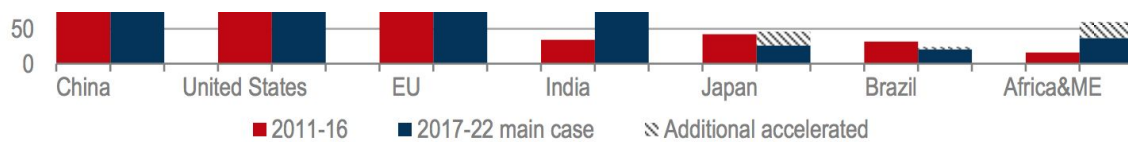
"The message is very clear: Competition is driving cost down at a pace which is much faster than it was in the past," said Dr. Paolo Frankl, head of IEA's renewable energy division, on a call with reporters. "The limiting factor is no longer cost...it's system integration."

Solar is the most shining example of renewable success from IEA's analysis. Frankl calls the industry "the star" of this year's report. Capacity grew 50 percent last year -- beating net growth from every other power source, including coal, for the first time. Upward trends in China and India mostly drove the increase. "What we are witnessing is the birth of a new era in solar PV," said IEA Executive Director Fatih Birol.

In line with its recent determination to end up a winner in the renewable energy market, China led the way on building solar capacity. The country added 360 gigawatts, accounting for 40 percent of the globe's PV capacity growth.

Heading into 2022, the United States will maintain its second-place position in renewable energy growth, despite the current federal policy landscape. Notably, India will narrowly overtake the European Union for third place. India has set an ambitious 100-gigawatt solar goal (<https://www.greentechmedia.com/articles/read/inside-indias-energy-market#gs.FEheumY>) and has seen extremely low auction prices (<https://www.greentechmedia.com/articles/read/indias-renewable-energy-auctions-may-not-be-sustainable#gs.YgnoANM>) in recent months, with module prices dipping under \$0.30 per watt.





For road transport, IEA projects that renewable-powered vehicles will increase marginally in the next five years to make up 5 percent of transport from the current 4 percent. With many countries committing to fossil-fuel car bans

([https://www.greentechmedia.com/articles](https://www.greentechmedia.com/articles/read/china-may-phase-out-gas-powered-cars)

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and companies like General Motors

([https://www.greentechmedia.com/articles](https://www.greentechmedia.com/articles/read/general-motors-all-electric-fuel-cell-vehicles-china-ev)

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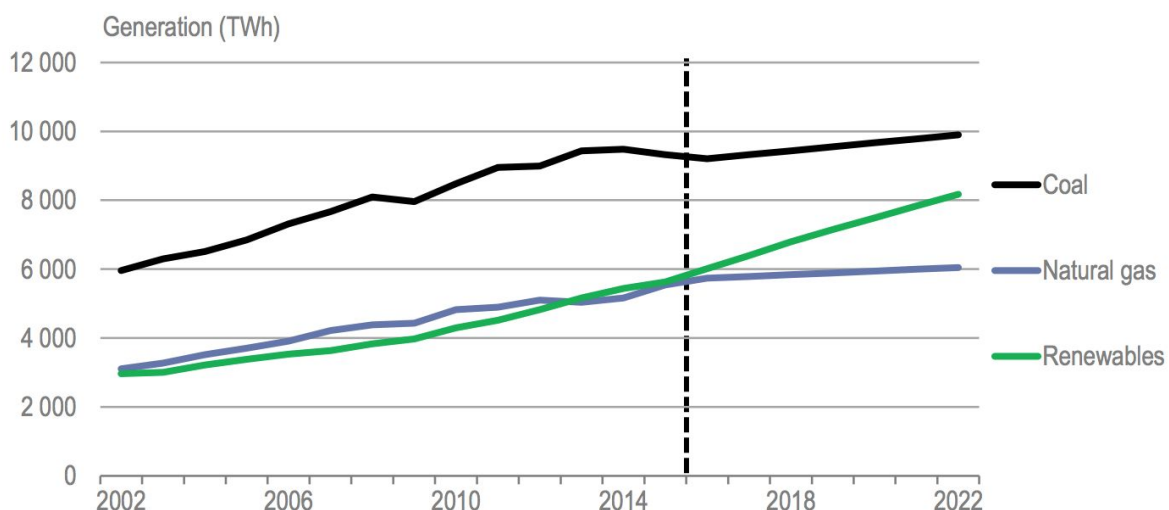
vehicles-china-ev) and Volvo moving away from

traditional fuel models, electric vehicles are

expected to double by 2022. But biofuels will lead 80 percent of the growth in renewable-powered transport.

In terms of total electricity generation, according to the IEA, renewables are already giving natural gas a run for its money. By 2022, clean energy will produce much more electricity than gas and inch even closer to closing the gap with coal. But even considering the explosive growth of solar and wind, coal will remain the largest source of electricity under the current scenario.

Electricity generation by fuel



In IEA's accelerated case that considers fewer policy barriers, clean energy capacity could increase by an additional 27 percent. To quicken the pace of ramping renewables, Frankl says utilities and power suppliers will need to focus on grid integration, affordable financing in developing countries, and working across inconsistent national policies on renewable targets.

“It’s very clear: While there is a success story of renewables in the power sector, the next chapter will require much more work,” he said.