

PV, wind, batteries: Energy outlook research

23 June 2018, by Nancy Owano



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Check out the latest energy stats as we face our renewable energy future. These facts and figures come from a Bloomberg report.

Renewable technologies – particularly [wind](#) and solar projects—are to take an increasing share of the [electricity](#) market. The Bloomberg crosshead for an article about the [report](#) read: "Investment in [clean energy](#) will continue to skyrocket as green technologies become cheaper and more [efficient](#)."

"Renewable energy is set to go from strength to strength in coming years and it will be generating 50% of global electricity by 2050, according to one of the most authoritative voices in clean energy," said *Forbes*, about the energy report from Bloomberg.

The report's overview said this: "Wind and solar are set to surge to almost "50 by 50" – 50% of world generation by 2050 – on the back of precipitous reductions in cost, and the advent of cheaper and cheaper batteries that will enable electricity to be stored and discharged to meet shifts in demand and supply. Coal shrinks to just 11% of [global electricity](#) generation by [2050](#)."

This in further details is the Bloomberg New Energy Finance (NEF) report. NEF is the company's research service and the report topic tells us about the electricity system. "New Energy Outlook (NEO) 2018's research was completed by more than [65](#) analysts around the world.

Were you hoping for stronger figures behind nuclear? The findings won't oblige. "The report doesn't offer a terribly bright future for nuclear," said Megan Geuss, *Ars Technica*. "After a period of [contraction](#), the nuclear industry's contribution to electricity generation is expected to level off."

[Elena](#) Giannakopoulou, head of energy economics at BNEF, said coal emerged as the biggest loser in the long run. Cheap renewables will be squeezing out coal. The future electricity system will reorganize around the cheap renewables as coal gets "squeezed out."

Meanwhile, will solar ever overtake wind?

"According to Bloomberg NEF's New Energy Outlook, solar won't overtake wind, at least not before 2050. Wind generation is a classic S-curve, nearly plateauing in total generation terms by 2050. Solar, by contrast, looks like a nearly straight [line](#)."

The impact that falling battery costs will have on the electricity mix over the coming decades is discussed. The continuing fall in the cost of batteries will massively increase the ability the ability to store off-peak electricity and sell it when demand is high.

"BNEF predicts that lithium-ion battery prices, already down by nearly 80% per megawatt-hour since 2010, will continue to tumble as electric vehicle manufacturing builds up through the [2020s](#)."

How would that be shaking out for wind and solar? The lead author of the NEO 2018, Sen Henbest, commented. "The arrival of cheap battery storage will mean that it becomes increasingly possible to

finesse the delivery of electricity from wind and solar, so that these technologies can help meet demand even when the wind isn't blowing and the sun isn't shining."

Overall, the report delivers a cost picture that discusses a "trifecta" of PV, wind and batteries. "The cost of an average PV plant falls 71% by 2050. Wind [energy](#) is getting cheaper too, and we expect it to drop 58% by 2050. PV and wind are already cheaper than building new large-scale coal and gas plants. Batteries are also dropping dramatically in cost. "

Forbes called attention to the report's look at batteries: "This year's report is the first to highlight how falling battery [costs](#) will transform the electricity mix in the coming decades. BNEF predicts that lithium-ion battery prices, which have already fallen by nearly 80% per megawatt-hour since 2010, will continue to tumble as electric vehicle manufacturing [scales](#) up through the 2020s."

More information:

about.bnef.com/new-energy-outlook/

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