

Allianz Global Investors

U.S. renewable energy passes tipping point

In April 2019, for the first time, clean energy supplied more of America's energy mix than coal. Although investors may have seen the U.S. Energy Information Administration announcement of that tipping point, they might not have grasped the tectonic shifts in global power and financial markets that brought us to this moment.

As investors consider the implications these shifts have for their portfolios, three factors stand out:

The economics have reversed. Recent technology advances have lowered costs for solar and onshore wind power so dramatically that these renewables are now competitive with traditional power generation — even *without* subsidies. As a result, it is now typically cheaper to build and operate new solar and onshore wind installations than to operate an existing coal plant. In fact, generating 1 megawatt of renewable energy in the United States costs, on average, less than half the cost of generating the same amount of energy through coal, according to Levelized Cost of Energy data published in the *New Energy Outlook 2019* report from Bloomberg New Energy Finance. And costs are still falling. In May, a report from the International Renewable Energy Agency showed that, globally, the costs of onshore wind and solar each dropped 13 percent in 2018 and forecast that prices would continue dropping for a decade. Put simply, coal's days appear to be numbered.

Utilities have no choice. With the threat of climate change looming, regulators are no longer leaving the switch to renewables to the whims of the market. States such as California, Hawaii, Nevada, New Mexico, New York and Washington have all made headlines by signing ambitious plans to (eventually) shift all electric power generation to emission-free sources. But hard mandates for renewable power are

spreading across states, red and blue alike. Texas has told utilities they have 12 months to install 10 GW worth of renewable energy capacity, or enough to power 7 million homes. That mandate will accelerate the state's already surprisingly rapid shift to renewables. So far this year, wind power alone generated 23 percent of the state's power, up from 17 percent in 2017, according to grid operator Electric Reliability Council of Texas. Over the same period, coal-fired generation fell to 22 percent from 32 percent.

Investment dollars are flowing. Last year, the private sector invested almost \$57 billion in renewables and related grid projects. That number will increase in 2019 due to the same two factors driving the growth of renewables themselves: a newly compelling economic case and increased demand, driven in part by regulators. On the first point, the project pipeline for greenfield solar and wind projects is so deep now in the United States that investors are being offered higher returns than are typical on comparable deals in Europe, a more-established renewables market. On the second point, demand for renewable investments is surging along with the broader adoption of environmental, social and governance (ESG) investing by institutions, as well as individual investors. Those adoption rates could climb sharply if, as expected, regulators around the world follow the European Union's lead in passing rules requiring investors to account for ESG factors in their investment decisions.

This potent combination of technological leaps, falling costs, regulatory mandates and robust demand has changed the game for energy production in the United States and around the world. It should also be changing the way investors view renewables and the role that renewable-energy assets play in their portfolios.



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Armin Sandhoevel, Ph.D., leads investments in renewable energy-related infrastructure projects. He has managed investments that have resulted in a cumulative power-generating capacity of more than 830 MW. As of Dec. 2018, his team managed more than \$1.6 billion of assets.

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CORPORATE OVERVIEW

Allianz Global Investors, or AllianzGI, is one of the world's leading active investment managers. Employing more than 2,700 people across 25 locations, AllianzGI manages more than \$601 billion in assets for individuals, families and institutions around the world. AllianzGI offers its clients a wide range of actively managed strategies and solutions across the risk/return spectrum. With more than 770 investment professionals, the firm has established expertise in equities, fixed-income, multi-asset and alternative investments.

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