Despite the efforts of the Trump Administration, renewable energy has continued to thrive. Key states are imposing rigorous deadlines for reducing power generation from fossil fuels. Economic trends are also supporting renewables. In the first half of 2019, Texas produced more power from renewables than coal.

Texas may be content to rely on market forces, but other states are taking a more active hand in shaping their energy futures. Here are the new renewable energy mandates and targets of 2019:

- In January 2019, the District of Columbia increased its RPS target to 100% renewable electricity sales by 2040.
- New Mexico mandated 100% zero-carbon electricity by 2045, up from the previous target of 20% renewable generation by 2020.
- Maine adopted a 100% target for 2050.
- Maryland increased its target to 50% of electricity sales from renewable generation by 2030, (up from the previous target of 22.5% by 2024).
- New York adopted a 100% target for 2040, with an interim target of 70% by 2030.
- Nevada increased its RPS to 50% of sales from renewable generation by 2030, including a goal of 100% of electricity sales from clean energy by 2050.

Ohio was the outlier, cutting its renewable energy requirement from 12% to 8%, tying itself ever more closely to the past of the energy system rather than its future.

The Energy Information Agency (part of the Department of Energy) "forecasts that utilityscale renewable fuels, including wind, solar, and hydropower, will collectively produce 18% of U.S. electricity in 2019 and 19% in 2020. EIA expects that annual generation from wind will surpass hydropower generation for the first time in 2019 to become the leading source of renewable electricity generation and that it will maintain that position in 2020."

According to <u>Forbes</u>, "the average cost of developing new power plants based on onshore wind, solar photovoltaic (PV), biomass or geothermal energy is now usually below \$0.10/kWh. Not far behind that is offshore wind, which costs close to \$0.13/kWh." Prices for conventional plants are \$0.05-\$0.10, making renewable quite competitive.

Energy storage is also increasingly affordable. According to a report from <u>Bloomberg New</u> <u>Energy Finance</u>, the levelized cost of electricity from lithium-ion batteries in late March had fallen by a third since the first half of 2018. Since 2012, the price has fallen 70%.

Of course, there's a huge amount of work that remains to be done. We've eliminated many

of the least economic coal plants; getting rid of the remainder will be harder. And natural gas has expanded rapidly due to fracking, a trend that we need to cap and then reverse. But at least it's clear that Trump has no more been able to turn back the energy tide than King Canute managed with sea.