

In June, Hawaii adopted a [law](#) endorsing the goals of the Paris Agreement and reinforcing its efforts to deal with climate change. Until that law made the news, I'm embarrassed to say that I hadn't paid any attention to Hawaii's impressive record in this area.

In fact, Hawaii may get the prize for passing the most laws on the subject. In 2012, NOAA published a [summary](#) of the state's climate-related laws, beginning with a 2007 law to reduce emissions to 1990 levels by 2020. Hawaii has adopted a goal of 70% renewable energy by 2030. Hawaii also has strong mandates to increase energy efficiency and promote electric vehicles, as well as laws dealing with biofuels, taxing imported petroleum, and requiring climate change adaptation planning. Altogether, the 2012 summary lists ten laws relating to climate change mitigation or adaptation. Since then, the state has not only endorsed the Paris Agreement's goals but also [set](#) a goal of 100% renewable energy by 2045.

[E&E](#) has published a detailed description of Hawaii's renewable portfolio standard, Hawaii counts a wide range of energy sources as renewable: solar, wind, hydroelectric, biofuels, geothermal, rooftop solar, biomass crops, agricultural and animal residues and wastes, and municipal solid waste. In addition "allows part of a sector known as combined heat and power. A commercial business can use a generator — powered by a mixture of liquefied natural gas and synthetic natural gas — to make electricity, for example."

Hawaii has its work cut out for it. As of 2015 it got 70% of its electricity from oil and another 13% from coal. The good news is that use of renewable energy has increased rapidly, from 950 GWhs to about 2500 GWhs between 2010 and 2016. According to the [Energy Information Agency](#), Hawaii has the highest electricity production from distributed solar, and solar energy generated 35% of Hawaii's renewable electricity. It also has the fourth-lowest per capita energy use in the nation. But obviously, there is a lot more work to do.

Hawaii has good reason to be concerned about climate change. The same 2012 report by NOAA listed climate changes that Hawaii is already experiencing:

- Increases in air temperature, especially at high altitudes;
- Decreased stream base flow
- Decreases in rainfall and rain intensity, with longer periods of days without rain;
- Rising sea levels;
- Ocean acidification; and
- Increased sea surface temperature, leading to more frequent and severe coral bleaching events.

One interesting approach to adaptation has been taken by Kauai County. It established a building setback based on the average annual erosion rate and a planning period of 70 to 100 years, plus a buffer of 40 feet. With some exceptions, development within the setback line is prohibited.

Hawaii's total contribution to global carbon emissions is small. But if it succeeds in moving away from its heavy dependence, it will be forging a path for others to follow.