

How Leading Edge Countries Are Shifting to Renewable Energy

Climate Reality Project: <https://www.climate realityproject.org/blog/follow-leader-how-11-countries-are-shifting-renewable-energy>

Who's embracing wind? Solar? Geothermal? These countries could provide blueprints for the worldwide shift to renewable energy. The question on everyone's mind: *How?* The truth is, we don't have to wait on scientists to invent any new technology. The solutions are already here! **We simply need to ramp up renewable energy generation, and fast.**



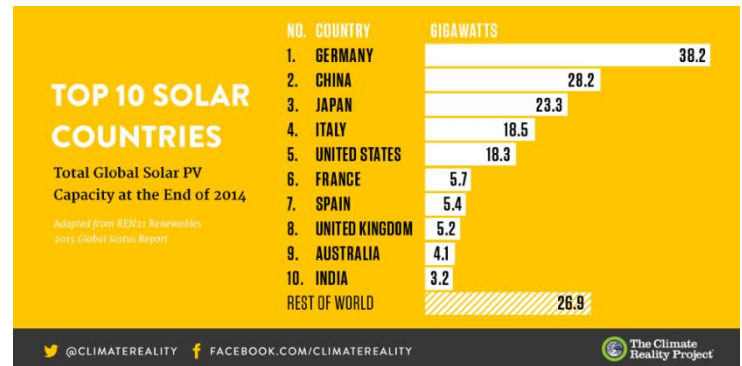
Sweden: In 2015, Sweden threw down the gauntlet with an ambitious goal: eliminating fossil fuel usage within its borders, and immediately ramping up investment in solar, wind, energy storage, smart grids, and clean transport. And the best part? The Swedes are challenging everyone else to join them in a race to become the first 100% renewable countries. *Now that's a competition where everyone wins.*

Costa Rica. Thanks to its unique geography and commitment to environmental preservation, small but mighty Costa Rica meets a huge amount of its energy needs using hydroelectric, geothermal, solar, wind, and other low-carbon sources. Next on the horizon: Costa Rica aims to be entirely carbon-neutral by 2021.



Nicaragua. Not to be outdone by its Tico neighbors, Nicaragua saw renewables comprise up to 54% of all electricity production in June 2015. How'd Nicaragua do it? In 2007, the then-president began emphasizing renewable energy investments. By 2012, Nicaragua invested the fifth-highest percentage worldwide of its GDP in developing renewable energy. Next on the to-do list: The country is aiming for 90% renewable energy by 2020, with the majority of energy coming from wind, solar, and geothermal sources.

Germany set the trend when it comes to renewable energy. It leads the world in solar PV capacity and has even been able to meet as much of 78% of a day's electricity demand from renewables. For a relatively cloudy country of over 80 million people, Germany is looking forward to a seriously bright future for solar energy!

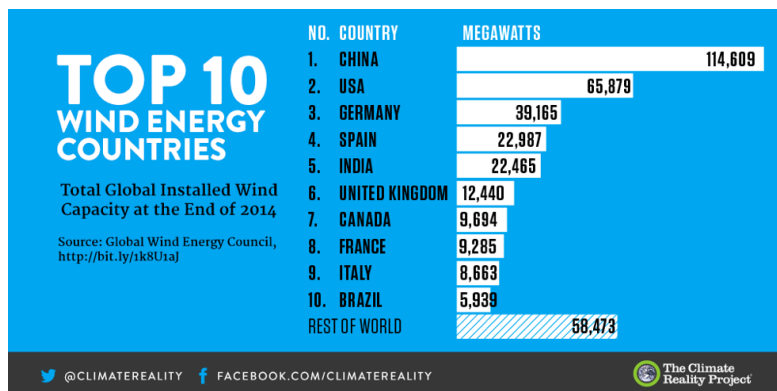


Uruguay. Going renewable doesn't have to take a lot of time and generous subsidies. Uruguay is now 95% powered by renewables after less than 10 years of concerted effort. The country invested heavily in wind and solar with no subsidies or increases in consumer costs. The secret? *"Clear decision-making, a supportive regulatory environment, and a strong partnership between the public and private sector."*

Denmark got 42% of its electricity from wind turbines in 2015, and that's not just a bunch of hot air. Even with two wind farms offline, that's the highest percent of wind power ever achieved worldwide. The country aims to be 100% fossil-fuel-free by 2050, and these



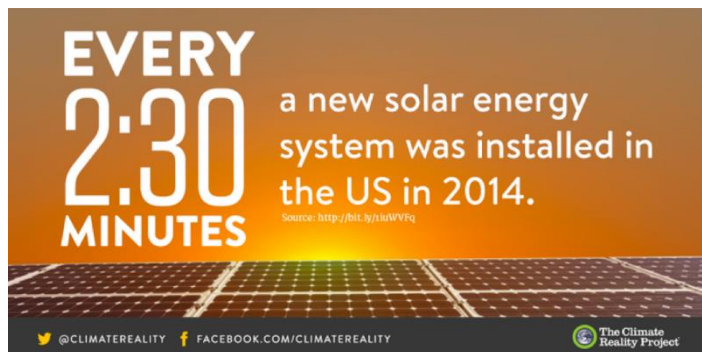
strong winds at its back will help push Denmark to that goal.



China. Wondering how the world's largest carbon emitter can also be a leader in renewable energy? It may seem counter-intuitive, but in 2014 China had the most installed wind energy capacity – by a longshot – and the second-highest installed solar PV capacity. China has also committed to phasing

out coal and cleaning up its polluted air.

Morocco. With ample sun, Morocco decided to go big. Bigger than anyone else in the world, in fact. The largest concentrated solar plant on earth recently opened its first phase in Morocco. With its accompanying wind and hydro plants, the mega-project will provide half of Morocco's electricity by 2020.



United States. In the US, a new solar energy system was installed every 2:30 minutes in 2014, earning the US fifth place on the installed solar PV capacity global rankings. America also has the second-highest installed wind energy capacity in the world. Unfortunately, the energy demand in the States far outpaces the renewable capacity. Renewables only accounted for about 13% of the country's electricity generation as of 2014. That said, a new NOAA study estimates that America could reduce emissions by nearly 80% in just 15 years without impacting consumer electricity costs by using more renewables.

Kenya. This country is looking to geothermal energy to power its future and reduce reliance on costly electricity imports. As of 2015, geothermal accounted for 51% of Kenya's energy mix – up from only 13% in 2010. Kenya's also betting big on wind, with Africa's largest wind farm (310 MW) set to provide another 20% of the country's installed electricity generating capacity. Those two combined will help Kenya generate 71% of its electricity with renewables.

