

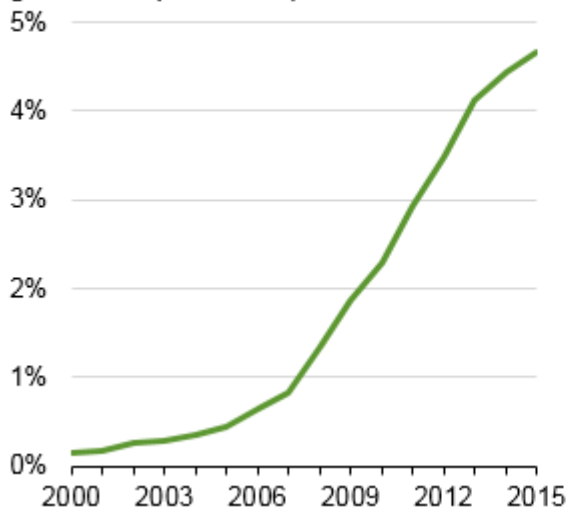
5 Ways the US Is Leading In Renewable Energy

August 1, 2017 Yayoi Suzuki, Maxwell Technologies

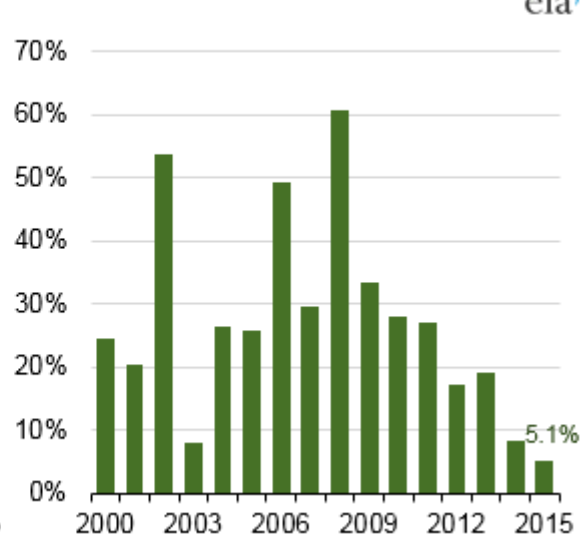
From wind power to electric vehicles and from corporations to consumers, the push for renewables is getting stronger. We're reflecting on the country's renewable energy milestones and celebrating future achievements. Here are some of the top highlights and predictions contributing to the nation's rank as a leader in renewable energy.

1. The growing wind industry: In 2016, the U.S. wind industry invested more than \$13.8 billion in projects and its expansion will continue in the coming years. As a result of increased investment, AWEA expects wind-related employment will grow across all 50 states, reaching 248,000 jobs by 2020. With the rise in projects and increase in jobs, the U.S. wind industry is poised to help the global green energy job count reach 10 million over the next few years.

Wind's share of total U.S. electricity generation (2000-2015)



Annual growth in wind generation

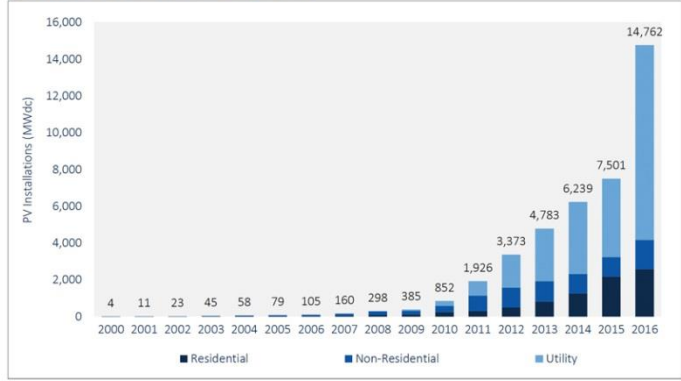


2. Increasing reliable access to renewable-generated power on the grid: Grid operators are increasingly



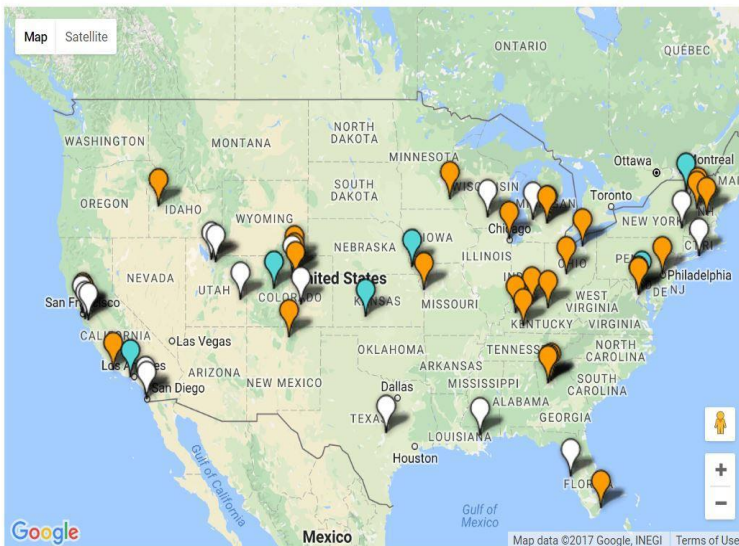
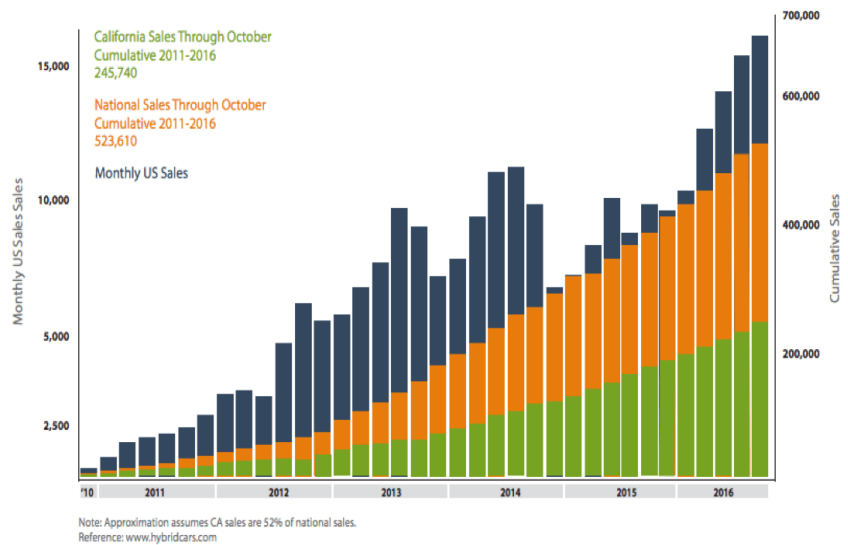
integrating renewable energy to the grid. However, the wind isn't always blowing and the sun isn't always shining. As a result, the grid requires flexible resources to fill in the gaps during these intermittent periods. The increasing availability of flexible storage options are making this possible and helping to stabilize renewables on the grid. By 2026, it's expected that 2.1 GW of hybrid energy storage, like a combination of batteries and ultracapacitors, will be deployed globally and many of these projects are located right here in the U.S.

Figure 1.1 Annual U.S. Solar PV Installations, 2000-2016



3. A surge in installed solar: In 2016, installed solar made up 39 percent of all new electric generating capacity in the country, topping all other technologies for the first time. The future of installed solar will keep shining brightly, too. The U.S. market is expected to reach 2 million installations next year and 4 million by 2022.

4. The electrification of transportation: The U.S. has experienced a sharp increase in electric light-duty vehicles sales, with a record high of 17.5 million units sold in 2016, and electric vehicle miles traveled over the last few years. States like New York and Vermont are increasingly offering tax incentives to consumers who buy EVs. The increased interest in cleaner vehicles won't stop anytime soon. It is predicted that total global sales of light-duty start-stop vehicles will exceed 61 million by 2025, accounting for nearly 60 percent of all light-duty vehicle sales.



5. More cities are committing to renewables: 118 U.S. mayors recently endorsed 100 percent clean and renewable electricity goals. This aims to significantly reduce electric sector carbon pollution nationwide and create a cleaner environment.

As the U.S. continues to pursue renewable energy initiatives, we're looking ahead to the future.

- Powered by 100% Renewable Energy:** These communities have fully transitioned to 100% clean, renewable energy sources to power the community's electricity needs.
- Committed to 100% Renewable Energy:** These communities have made city-wide commitments to transition to 100% clean, renewable energy no later than 2050.
- Working towards 100% Renewable Energy:** In these communities, Sierra Club and our allies are working to inspire city leadership to take ambitious steps forward by both committing their communities to 100% clean, renewable energy and pursuing near term steps to implement this vision.