



## Study Finds Texas Could Easily Generate Most of Its Energy Through Wind and Solar

For generations, Texas has been a steady producer of fossil fuels like coal and crude oil. Now professors at Houston's Rice University say that the state is uniquely positioned to shift entirely toward solar and wind energy.



Photo: GETTY IMAGES

The state's geography is particularly hospitable to renewable energy sources, according to a new study authored by professors Joanna H. Slusarewicz and Daniel S. Cohan. They cite wind coming out of west Texas and the southern Gulf Coast, along with the abundant potential for solar energy throughout the state.

"There is no where else in the world better positioned to operate without coal than Texas is," says Dan Cohan, an associate professor of civil and environmental engineering at Rice University, in a press statement. "Wind and solar are easily capable of picking up the slack."

As for the question of reliability, the study lets the state's current energy sources set the standard. Relying on [previous data](#), they show that "coal-fired power plants are typically available 87.5% of the time, after accounting for scheduled maintenance and unscheduled maintenance or outages." The benchmark for solar and wind, then, would be an identical availability rate of 87.5 percent or more.

Wind from west Texas alone, combined with solar energy, could provide "the highest levels of firm capacity at an 87.5% threshold" the study finds. On a day-to-day level, all three power sources would trade off regularly—solar during the day, south Texas wind during the late afternoon, and west Texas wind during the evening.

Texas is currently the number one state in terms of crude oil and natural gas consumption, as well as sixth in terms of coal consumption. It's also the largest consumer of wind energy among the 50 states, generating around 18 percent of its energy through wind. Wind consumption is partially in line

with the study—mostly based out of west Texas—but at the moment it overwhelms the infrastructure put in place to absorb it.

While there's a great amount of room for Texas to expand into Gulf Coast wind, the study says, the biggest potential area for growth is in solar. Texas only generates 2.4 percent of its energy from solar photovoltaics, a small amount compared with other states with similar size and populations, like California.

Texas-based solar companies have leapt on the study, eager to show their state the potential of the cheapest source of new energy generation. "We've only begun to scratch the surface in terms of truly harnessing our clean, renewable resources," says John B. Billingsley, CEO of Sunfinity Renewable Energy, in a press statement. "Texans will be the real winners, realizing both the environmental and economic benefits of renewables. The next several years will see amazing strides forward."

With no new coal plants being built in Texas and strong population growth, the state will likely be looking for new energy sources soon.

"We're poised on the edge of a much cleaner grid than we have today," Cohan says. "There's an opportunity with coal coming offline to have wind and solar step up. It's the cheapest way to do things, whether or not you care about the environment."

Sources:

*Houston Chronicle and Popular Mechanics*

Download the Rice University Study Report:  
<https://jrenewables.springeropen.com/track/pdf/10.1186/s40807-018-0054-3>

INTERLINK  
P.O. Box 610246  
DFW Airport, TX 75261-0246  
Email: [candy@interlink-ntx.org](mailto:candy@interlink-ntx.org)  
Website: [www.interlink-ntx.org](http://www.interlink-ntx.org)

