

Power Sector Carbon Index sees double digit growth in solar power

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The Power Sector Carbon Index, developed by Carnegie Mellon University (CMU) and Mitsubishi Hitachi Power Systems (MHPS) tracks the environmental performance of U.S. power producers and compares current emissions to more than two decades of historical data collected nationwide. It provides a comprehensive picture of the carbon intensity of electricity production during the previous twelve months, as well as a summary of how much electricity is being produced by coal, natural gas, nuclear, and renewable sources.

The latest data revealed the following findings: US power plant emissions averaged 890 lb. CO₂ per megawatt hour (MWh) in the second quarter of 2018, which was down 5 percent from the same timeframe in 2017. The rolling annual average carbon intensity was 949 lb CO₂ per MWh, which is 28 percent lower than the annual average in 2005. The total annual rolling CO₂ emissions were 1,775 million metric tonnes, which was 27 percent lower than in 2005.

Here are the highlights of the Index's most recent results:

- Total [generation](#) was up 4% in 2018 Q2 when compared to 2017 Q2.
- Coal generation was down 8% in 2018 Q2 when compared to 2017 Q2. Coal represented 26% of total generation in 2018 Q2.
- Natural Gas generation was up 16% in 2018 Q2 when compared to 2017 Q2. Natural Gas represented 34% of total generation in 2018 Q2.
- Hydro generation was down 7% in 2018 Q2 when compared to 2017 Q2. Hydro represented 8% of total generation in 2018 Q2.
- Wind generation was up 9% in 2018 Q2 when compared to 2017 Q2. Wind represented 7% of total generation in 2018 Q2.

- Solar generation was up 24% in 2018 Q2 when compared to 2017 Q2. Solar represented 3% of total generation in 2018 Q2.
- Nuclear generation was up 6% in 2018 Q2 when compared to 2017 Q2. Nuclear represented 19% of total generation in 2018 Q2.
- Other generation was down 5% in 2018 Q2 when compared to 2017 Q2. Other generation represented 1% of total generation in 2018 Q2.
- Other Renewables generation was up 0% in 2018 Q2 when compared to 2017 Q2. Other Renewables represented 2% of total generation in 2018 Q2.

"Solar power generation had double digit growth this quarter compared to last year," said Costa Samaras, Assistant Professor of Civil and Environmental Engineering at CMU. "There was a time where energy analysts just listed the fraction of [power](#) from solar as 'about zero.' That is clearly no longer the case."

For the complete findings of the Index, please visit emissionsindex.org.

Provided by Carnegie Mellon University

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