Chart of the Week #29: Select Residential Electricity Prices U.S. and Europe

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Select Residential Electricity Prices: U.S. and Europe

Semi-Annual European Residential Electricity Prices

Monthly U.S. Electricity Prices

Analysis Based on Eurostat Data

Analysis Based on EIA Data
Select Residential Electricity Prices: U.S. and Europe

• EIA reports that in 2019, the average annual electricity consumption for a U.S. residential utility customer was 10,649 kilowatt hours (kwh), an average of about 877 kwh per month. Louisiana had the highest annual electricity consumption at 14,787 kwh per residential customer, and Hawaii had the lowest at 6,296 kwh per residential customer.

• U.S. states differ considerably in the levels and trends of their respective residential electricity prices. The reason for this varies; some like California have aggressive RPS (renewable portfolio standards) combined with generous PPAs (power purchasing agreements) that benefit wind and solar sources. Others, like Texas, rely on production tax credits that support its wind generation, thereby lowering the unit cost.

• European electricity prices, as collected by Eurostat, are broken down by annual usage, the application of taxes and levies, and currency. European electricity prices used here are for households consuming between 5,000 and 15,500 kilowatt hours per year, converted to euros from national currencies, and reflecting all taxes and levies.

• Developed European countries generally have higher residential electricity prices than developing ones. Also, the greater amount of solar and wind power as a proportion of the generation mix, the higher the price. The exception to this is France, which continues to rely on nuclear power for the bulk of its electricity.

• The current euro/dollar conversion rate is 1.16.

• The expanded version of this slide deck is available at: https://eprinc.org/chart-of-the-week/

• For more information on this chart, please contact Max Pyziur (maxp@eprinc.org)
Generation Mix in Select European Countries: Germany, France, United Kingdom, Turkey, and Ukraine
Germany has moved aggressively to increase solar and wind generation while phasing out nuclear power.
France continues to rely on nuclear power.
Lower utilization and retirements of coal and nuclear capacity has led to greater reliance on natural gas generation.
The bulk of Turkey's electricity is generated from fossil fuels and hydroelectric dams.
Ukraine’s electricity generation is dominated by nuclear power and coal.
Generation Mix in Select U.S. States: California, Texas, New York, and Florida
California has moved aggressively to increase solar and wind generation.
Texas has commissioned large amounts of wind and natural gas generation while phasing out coal.
Florida is continuing to increase its reliance on natural gas while lowering its use of coal.
While New York State has committed to increasing the amount of solar and wind generation, nuclear, natural gas, and hydroelectric sources dominate its generation mix.
United States Electricity Production: from Nuclear, from Coal, from NatGas, from Hydroelectric, from Wind, from Solar: 12/31/2014 to 12/31/2020

Analysis based on Annual EIA Data