

# 2018 Sustainable Energy in America Factbook

## GROWTH SECTORS OF THE U.S. ENERGY ECONOMY

 Energy Efficiency

 Natural Gas

 Renewable Energy

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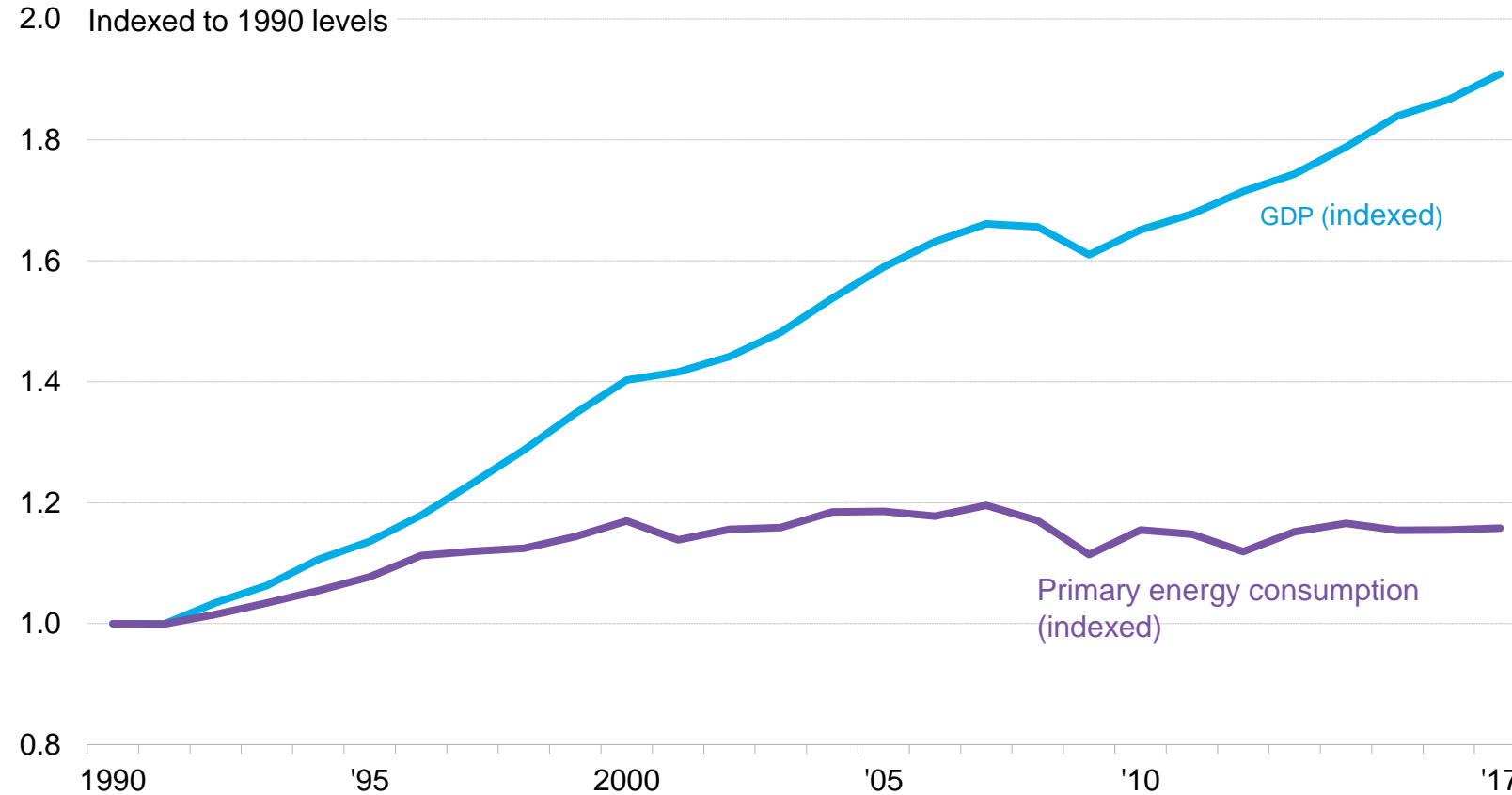
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# U.S. economic growth no longer relies on expanding energy consumption

## U.S. GDP and primary energy consumption



In the past 10 years:

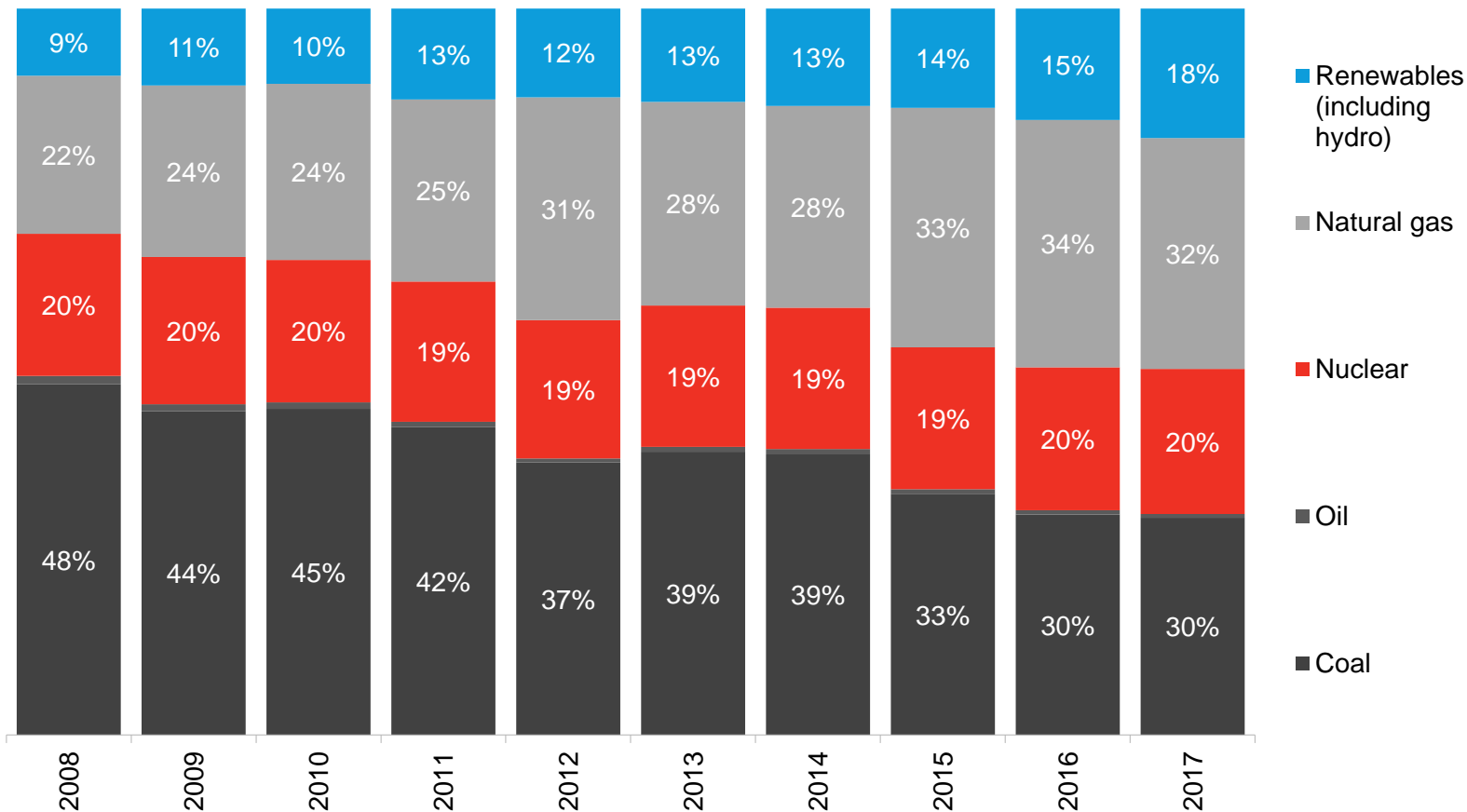
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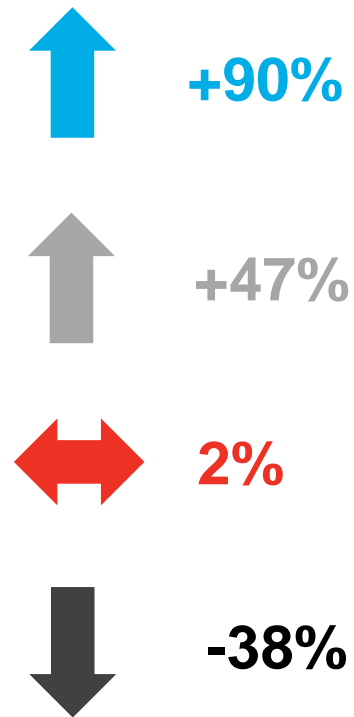
Source: Bureau of Economic Analysis, Lawrence Berkeley National Laboratory, BNEF. Notes: Values for 2017 are projected, accounting for seasonality, based on latest monthly values from EIA (data available through October 2017). 2017 GDP estimate is a projection from economists compiled at ECFC <GO> on the Bloomberg Terminal.

# Sustainable energy resources have become an established part of U.S. power

U.S. electricity generation by fuel type (% of total generation)



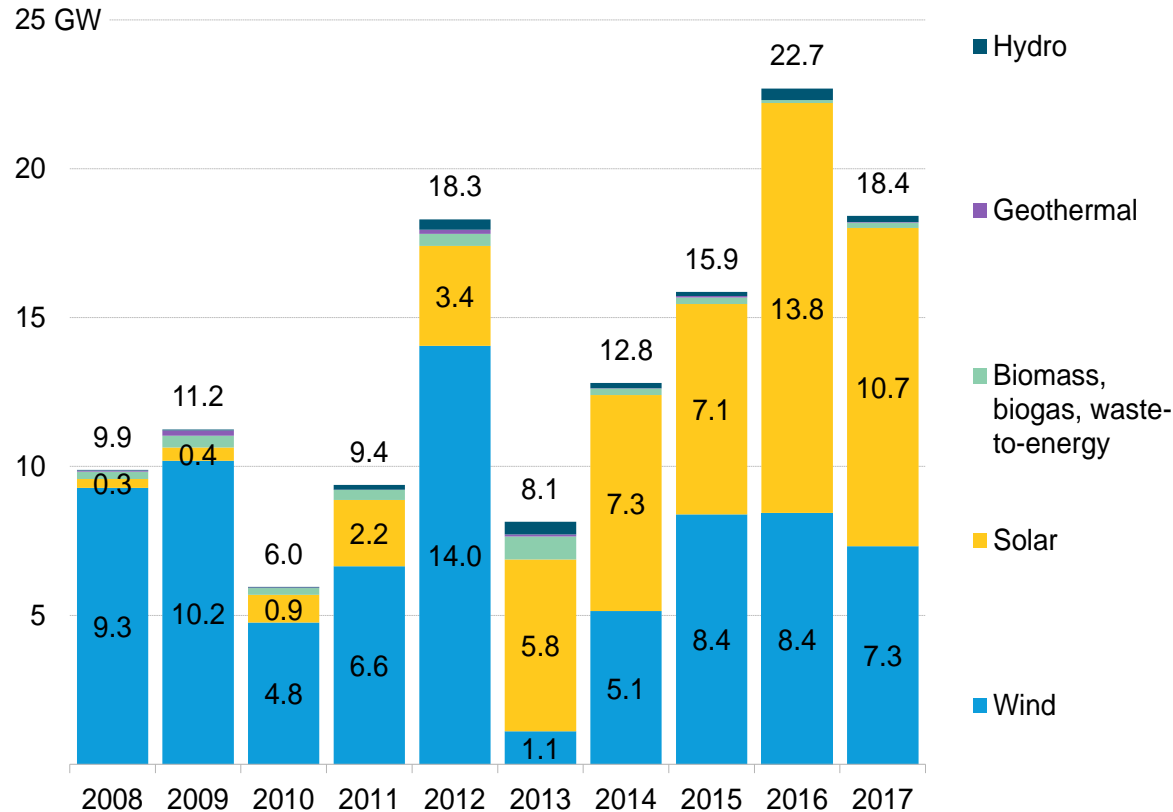
In the past 10 years\*:



Source: EIA, BNEF. Note: Values for 2017 are projected, accounting for seasonality, based on latest monthly values from EIA (data available through November 2017). \*Percentage changes over the past 10 years are for share of total generation, not for the absolute number of MWh generated.

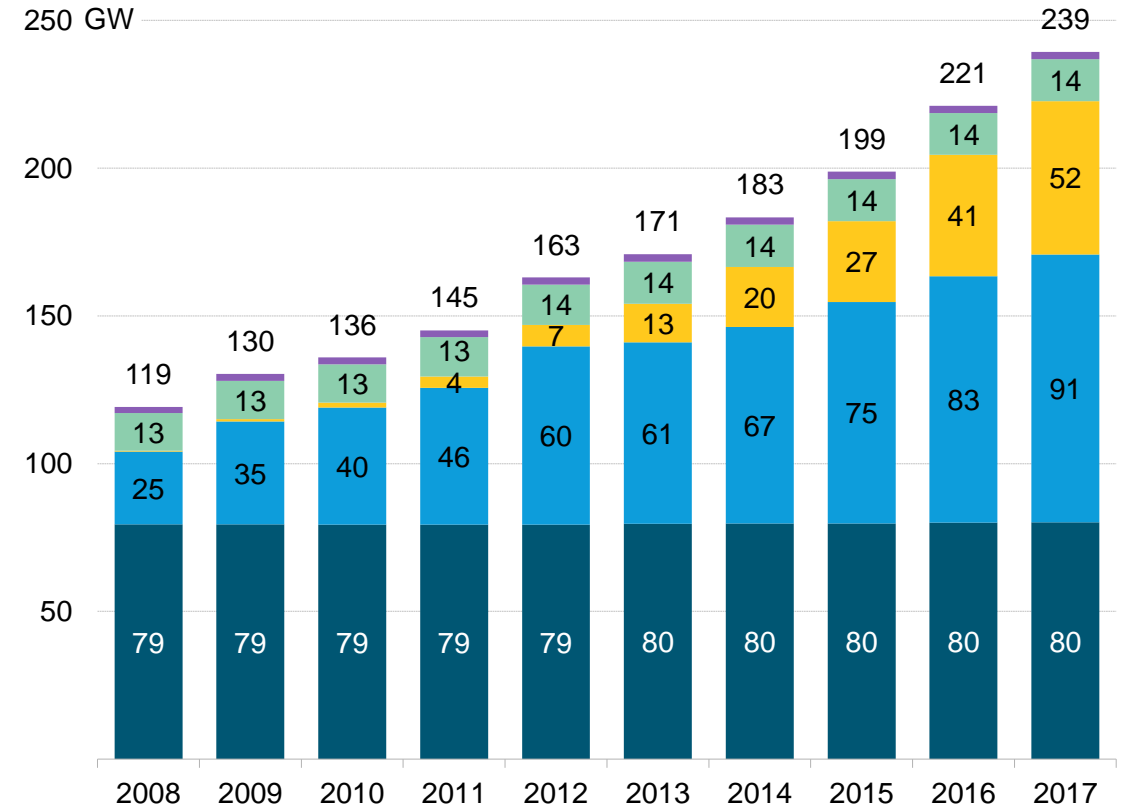
# Renewable build also neared a record in 2017, amidst policy uncertainty

## U.S. renewable build by technology



Source: Bloomberg New Energy Finance, EIA Notes: All values are shown in AC except solar, which is included as DC capacity. Numbers include utility-scale (>1MW) projects of all types, rooftop solar, and small- and medium-sized wind.

## U.S. cumulative renewable capacity

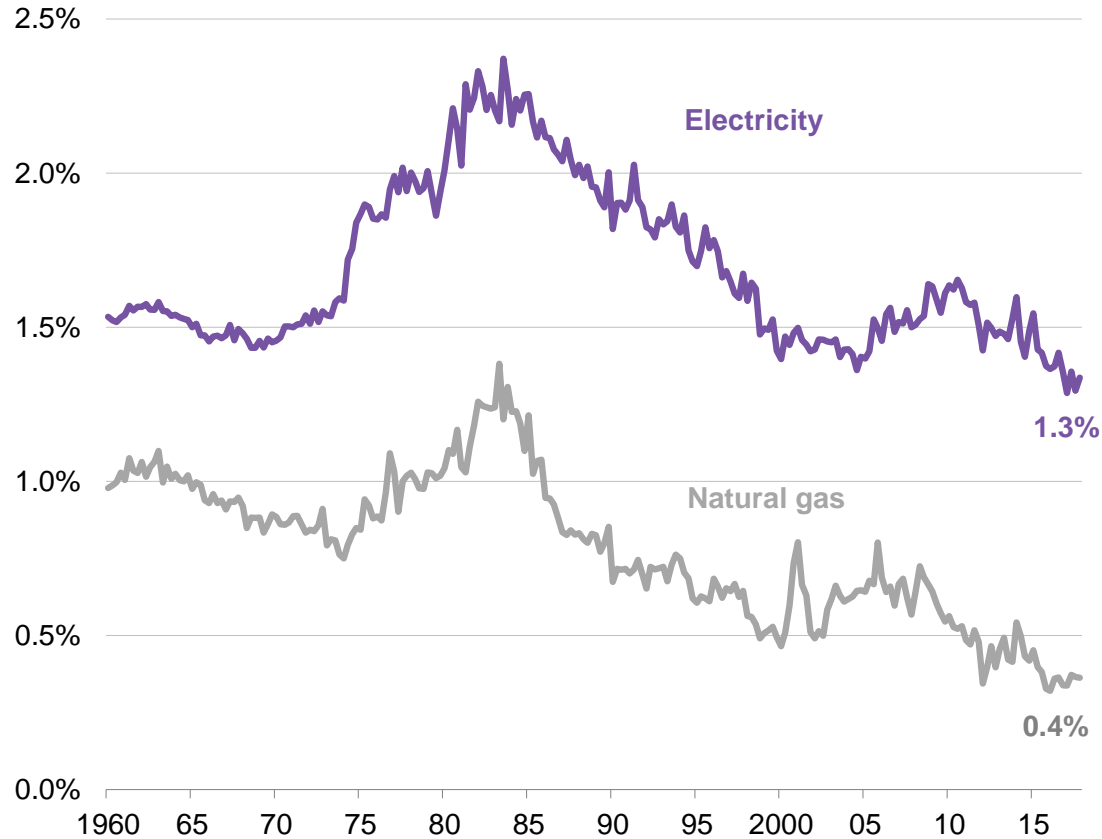


Source: Bloomberg New Energy Finance, EIA Notes: All values are shown in AC except solar, which is included as DC capacity. Hydropower capacity and generation exclude pumped storage facilities (unlike in past Factbooks). Totals may not sum due to rounding.



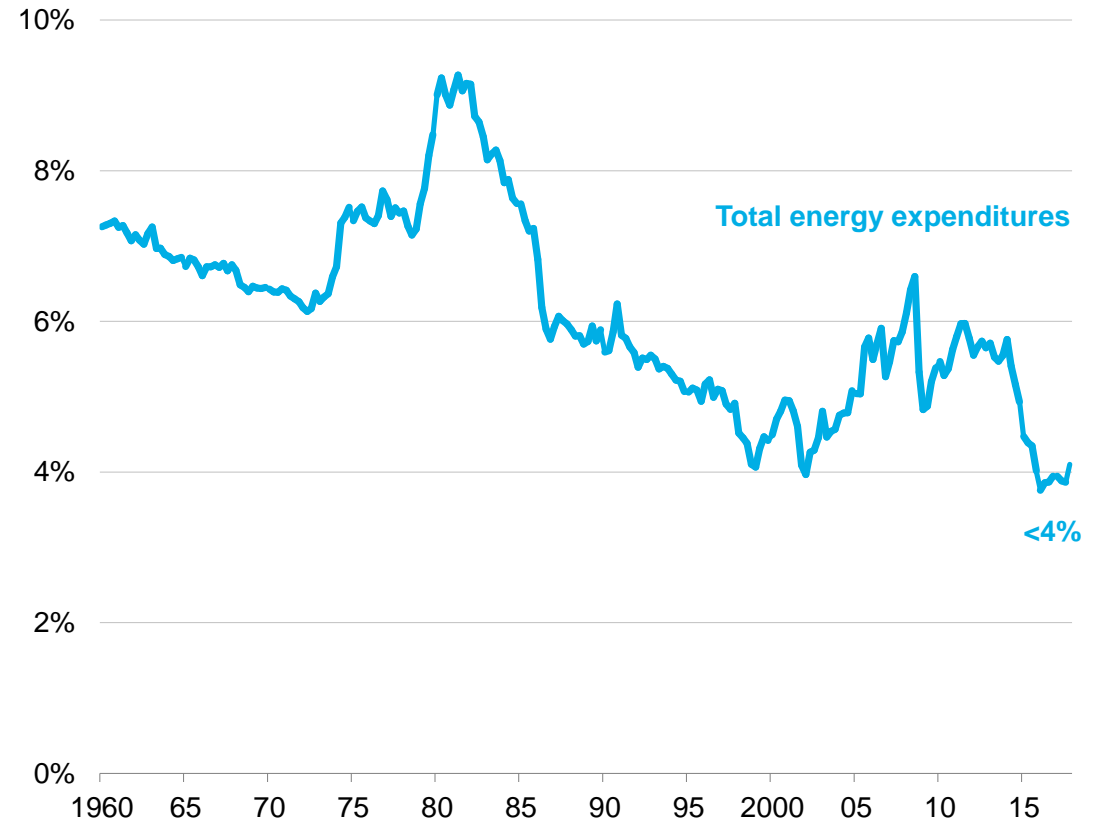
# Electricity is making up a smaller share of household bills than ever before

Electricity and natural gas as share of total consumption expenditure



Source: Bureau of Economic Analysis, BNEF

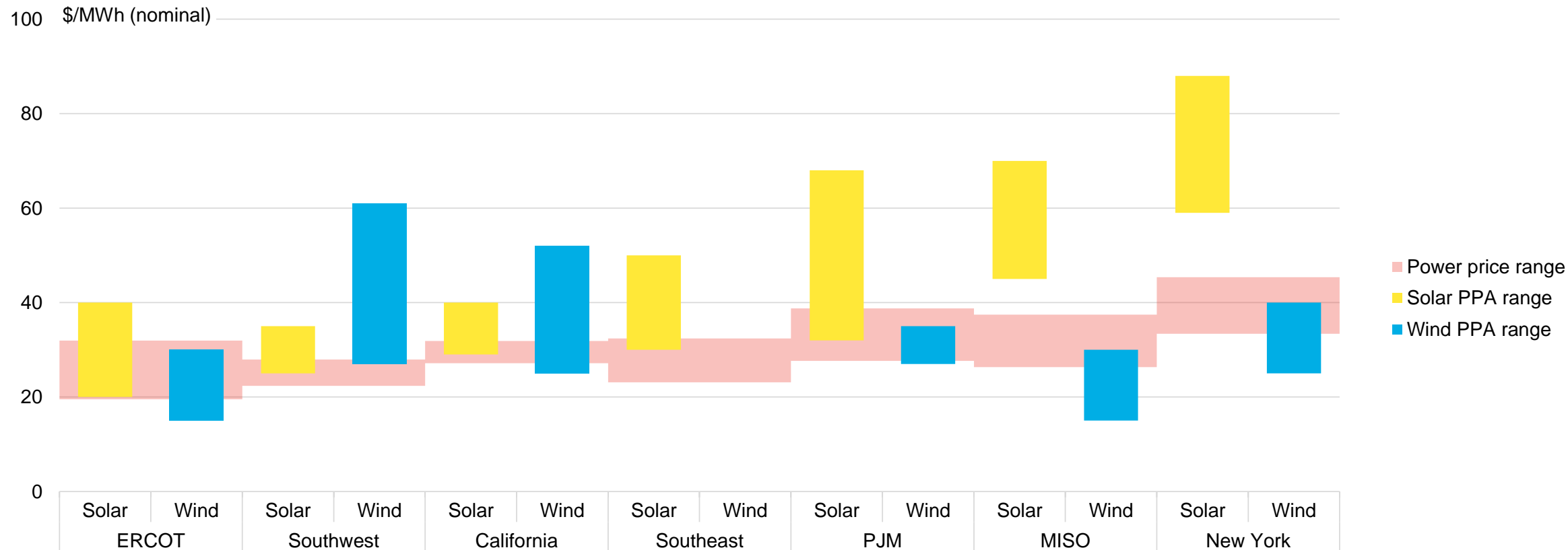
Total energy goods and services as share of total consumption expenditure



Source: Bureau of Economic Analysis, BNEF

# Clean energy is no longer expensive: Wind, solar contracts are economic in parts of the U.S.

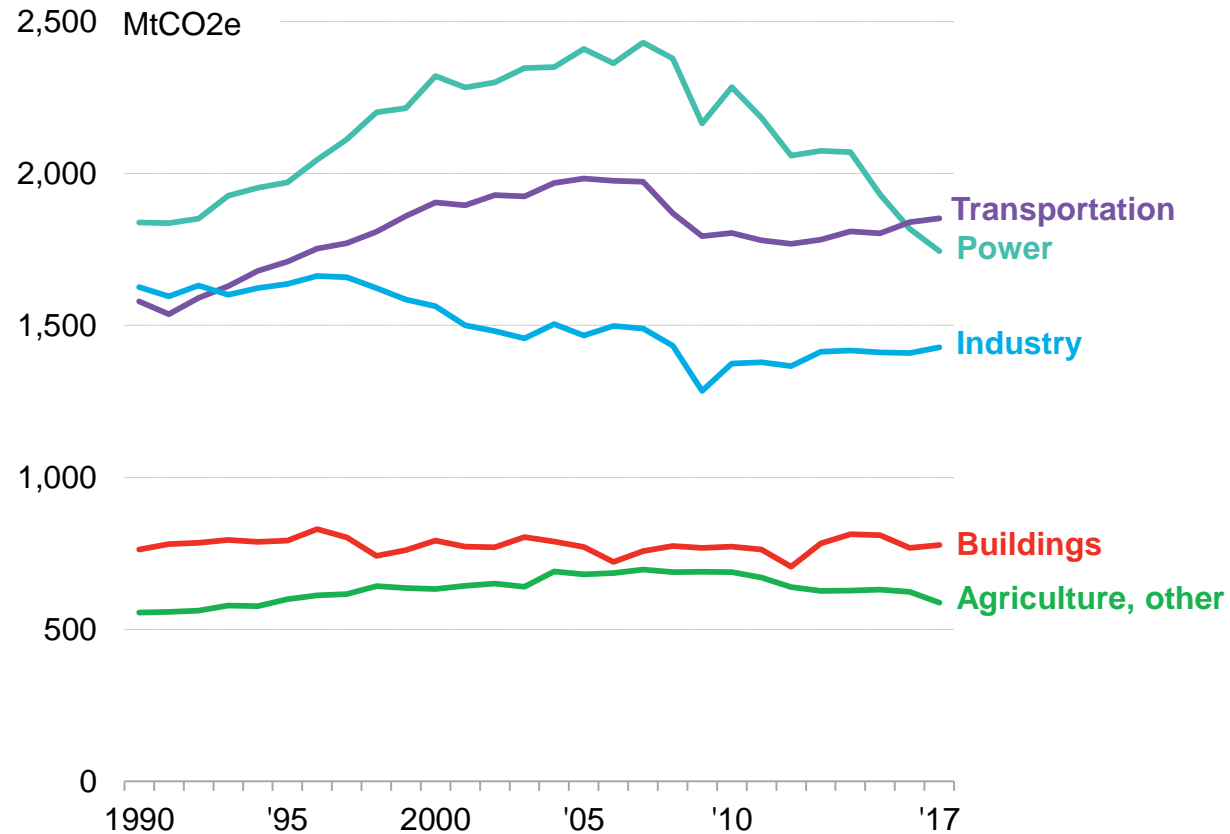
Wind, solar power purchase agreement price ranges (estimated) and power price ranges – by region



Source: Bloomberg New Energy Finance, SEC filings, interviews, analyst estimates Notes: MISO is the Midwest region; PJM is the Mid-Atlantic region; SPP is the Southwest Power Pool which covers the central southern U.S.; NEPOOL is the New England region; ERCOT covers most of Texas. Wholesale power prices are based on market-traded futures for calendar year 2018 for select nodes within each region.

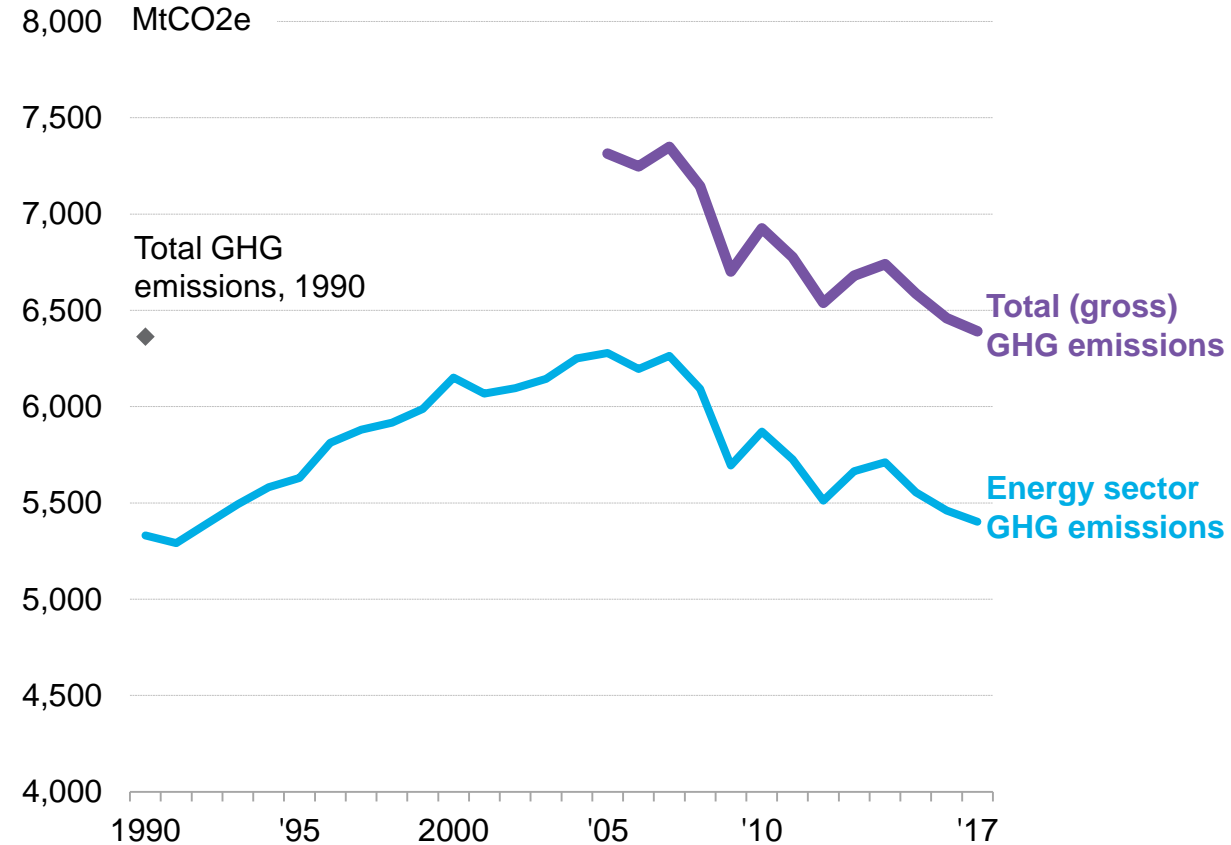
# Power sector emissions have plunged, taking down total U.S. emissions

## Emissions by sector



Source: Bloomberg New Energy Finance, EIA, EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015. Values for 2017 are projected, accounting for seasonality, based on monthly values from EIA available through October 2017.

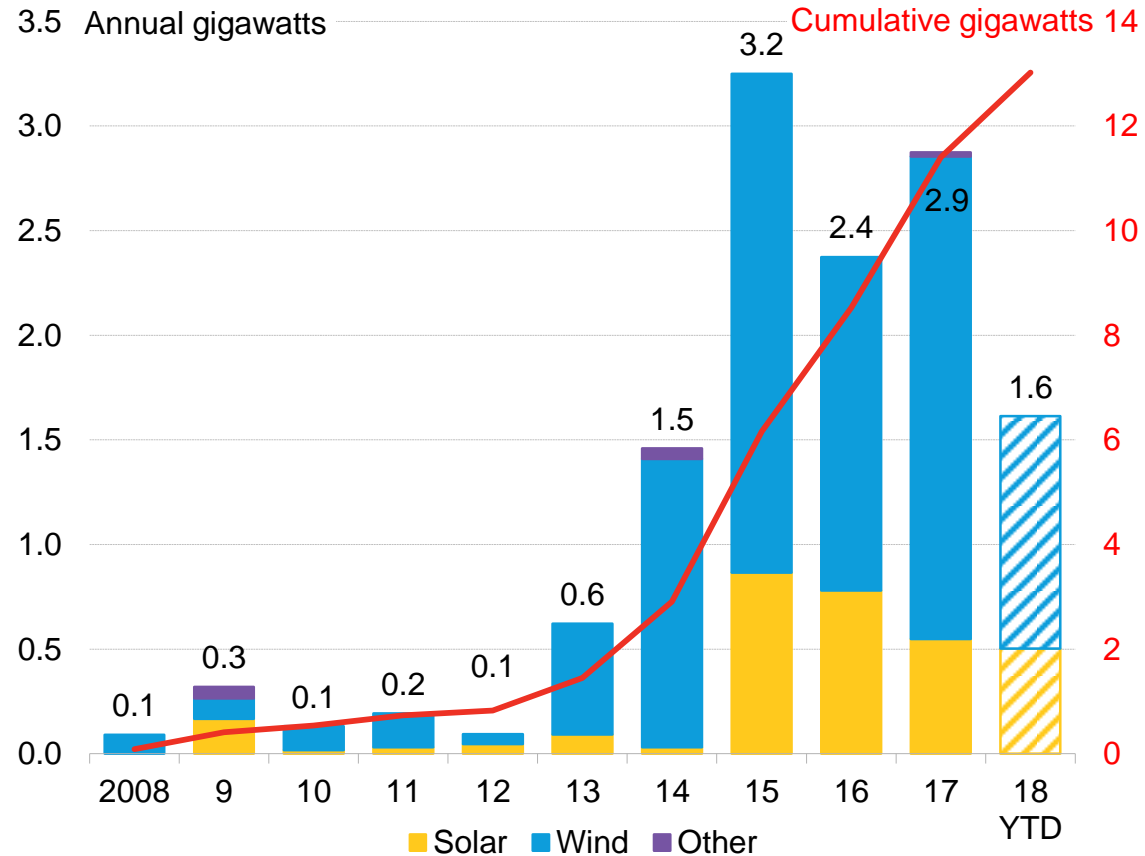
## Economy-wide and energy sector emissions



Source: Bloomberg New Energy Finance, EIA, EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015. Values for 2017 are projected, accounting for seasonality, based on monthly values from EIA available through October 2017.

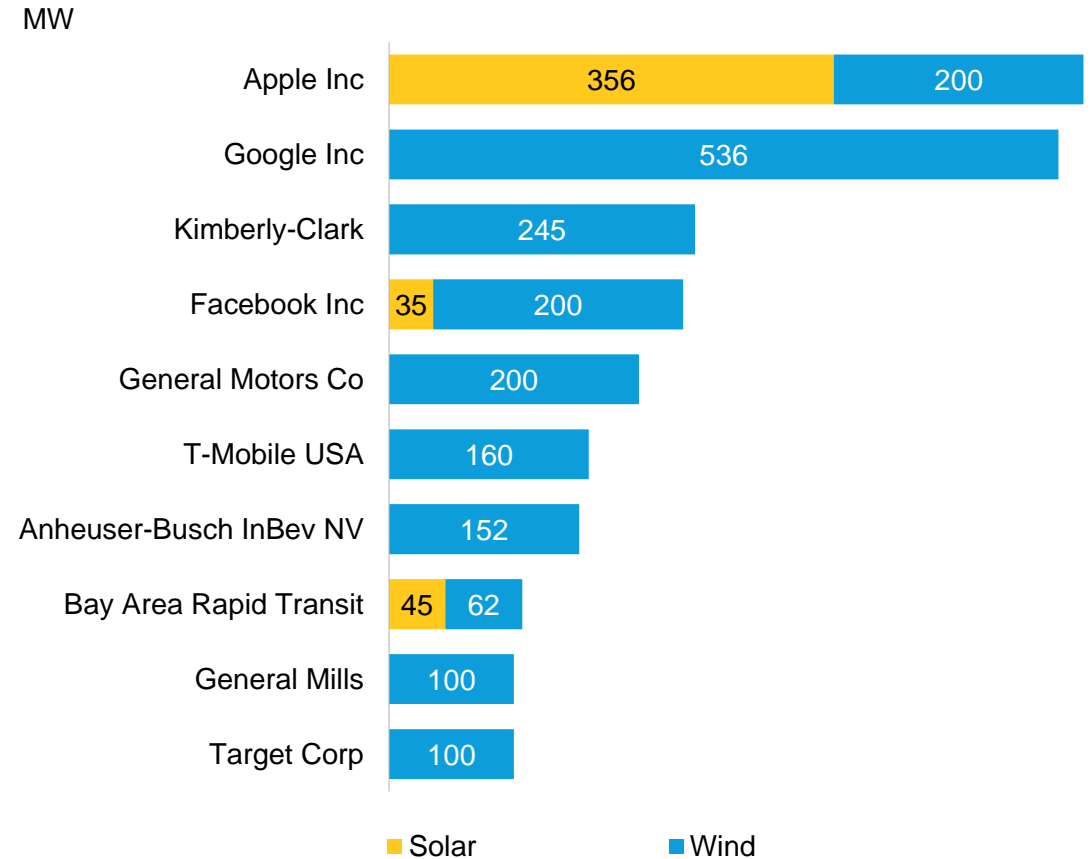
# Corporations “Are Still In” (Part I)

## Renewable capacity contracted by corporations, by technology



Source: Bloomberg New Energy Finance Note: Charts show offsite PPAs only

## Largest corporate offtakers, 2017



Source: Bloomberg New Energy Finance Note: Charts show offsite PPAs only



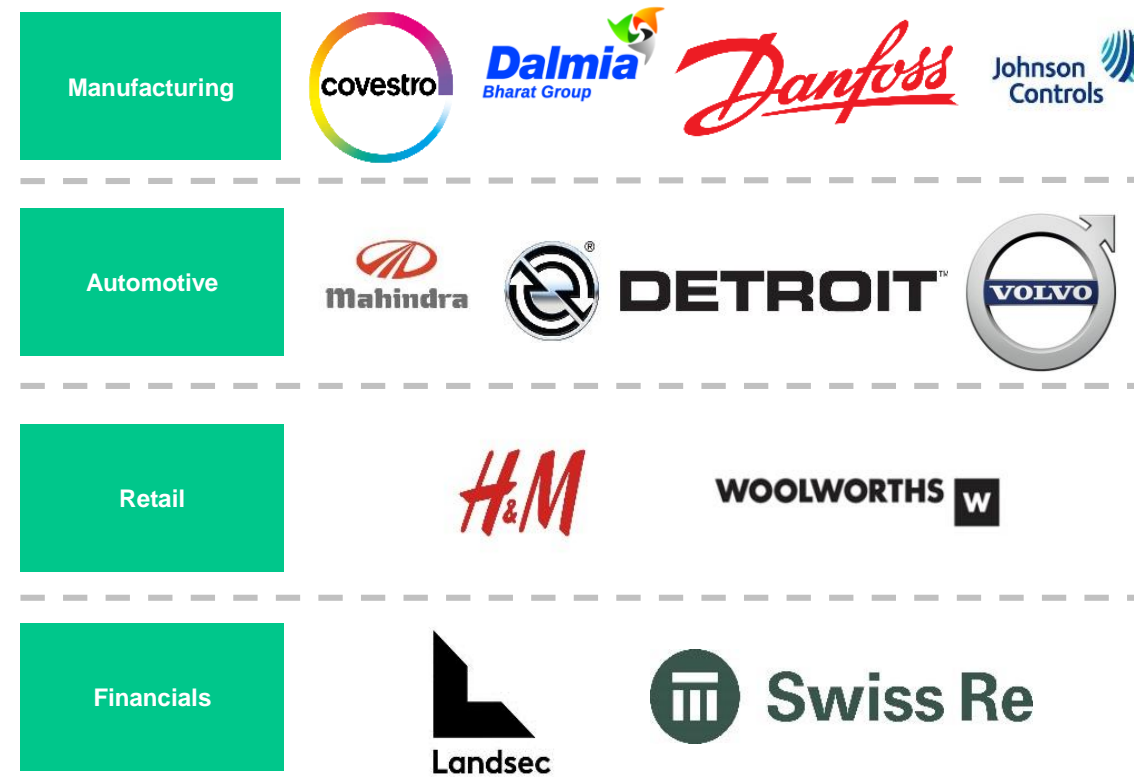
# Corporations “Are Still In” (Part II)

## Key players: Corporate clean energy procurement



Source: Bloomberg New Energy Finance, The Climate Group, company announcements, DOE Note: Corporate clean energy procurement key players are companies that signed onto the RE100 in 2017.

## Key players: Corporate energy efficiency



Source: Bloomberg New Energy Finance, The Climate Group, company announcements, DOE Note: The key corporate energy efficiency players displayed here are drawn from EP100 members and the list of ISO 50001 certified facilities. ISO 50001 certification means that a company has met established efficiency standards at one or more of its facilities.