2018 Indiana Renewables Study & 2018 Forecast Update

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Presented to:
Interim Study Committee on Energy, Utilities, and Telecommunications
Indiana General Assembly

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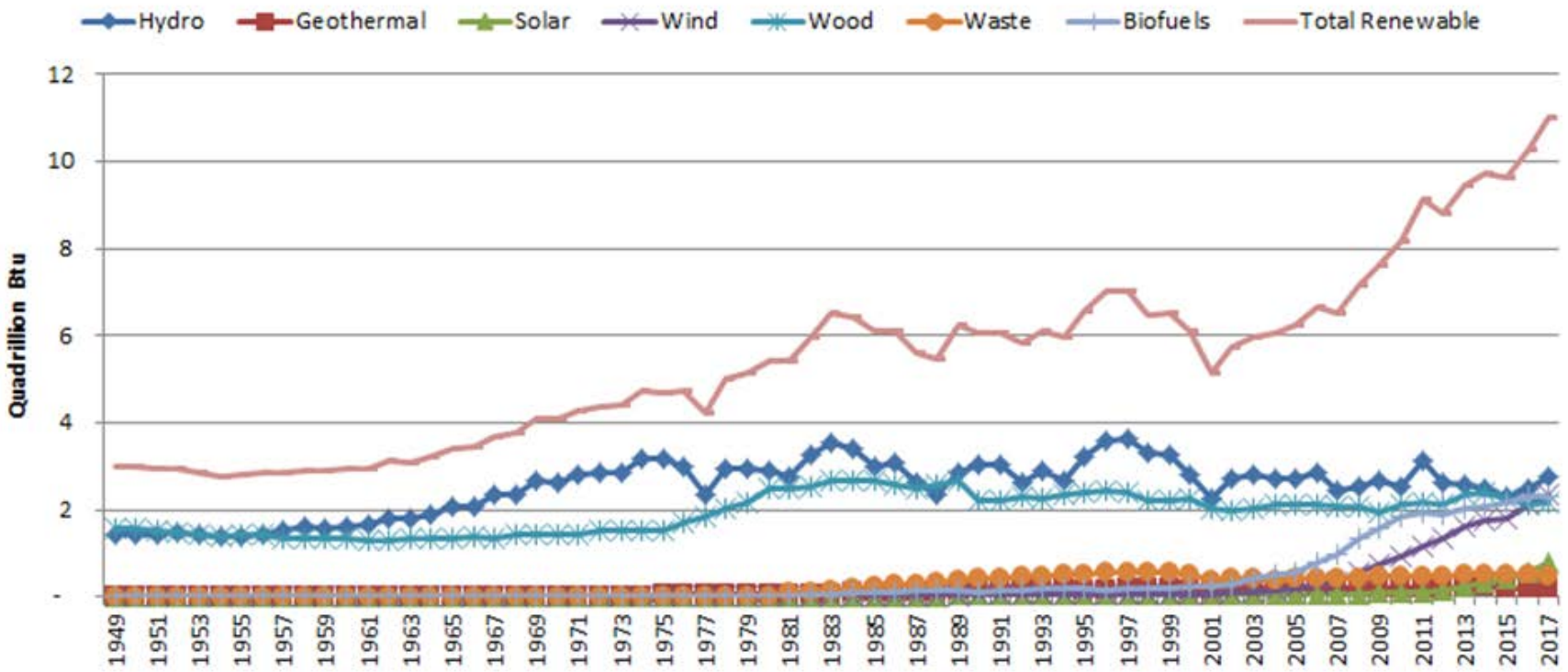
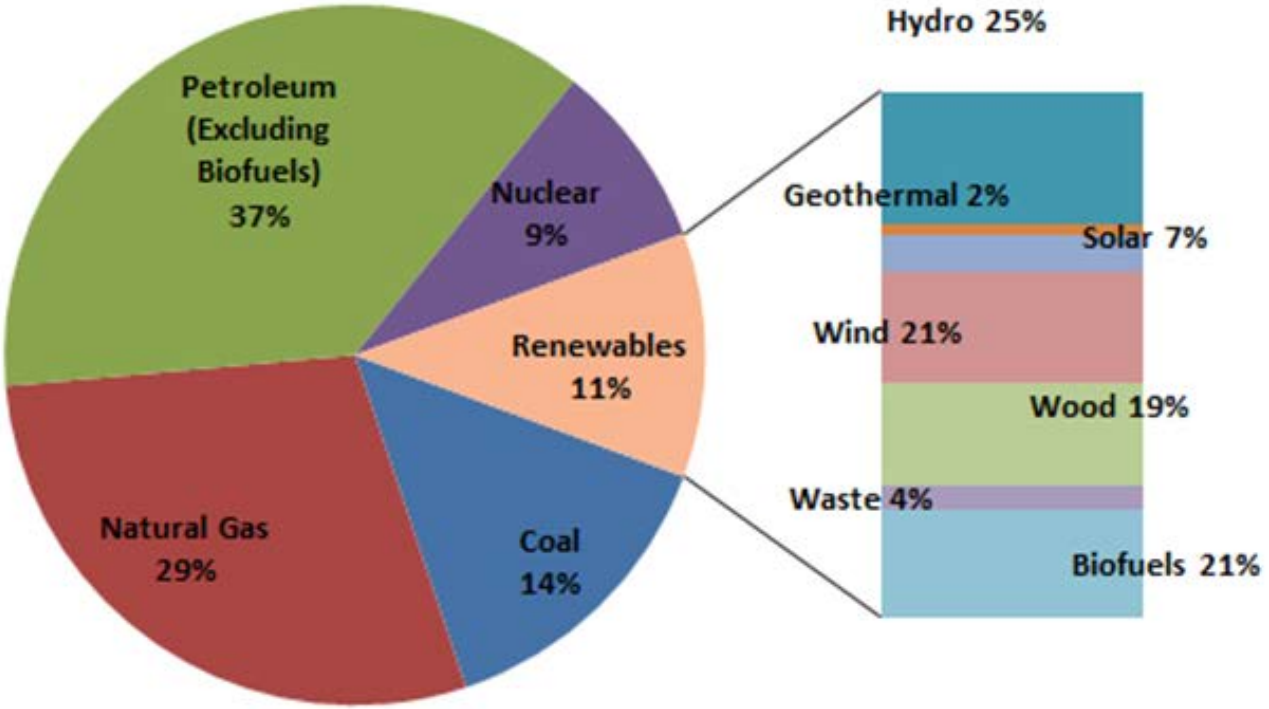
Historical Renewable Energy in the U.S.



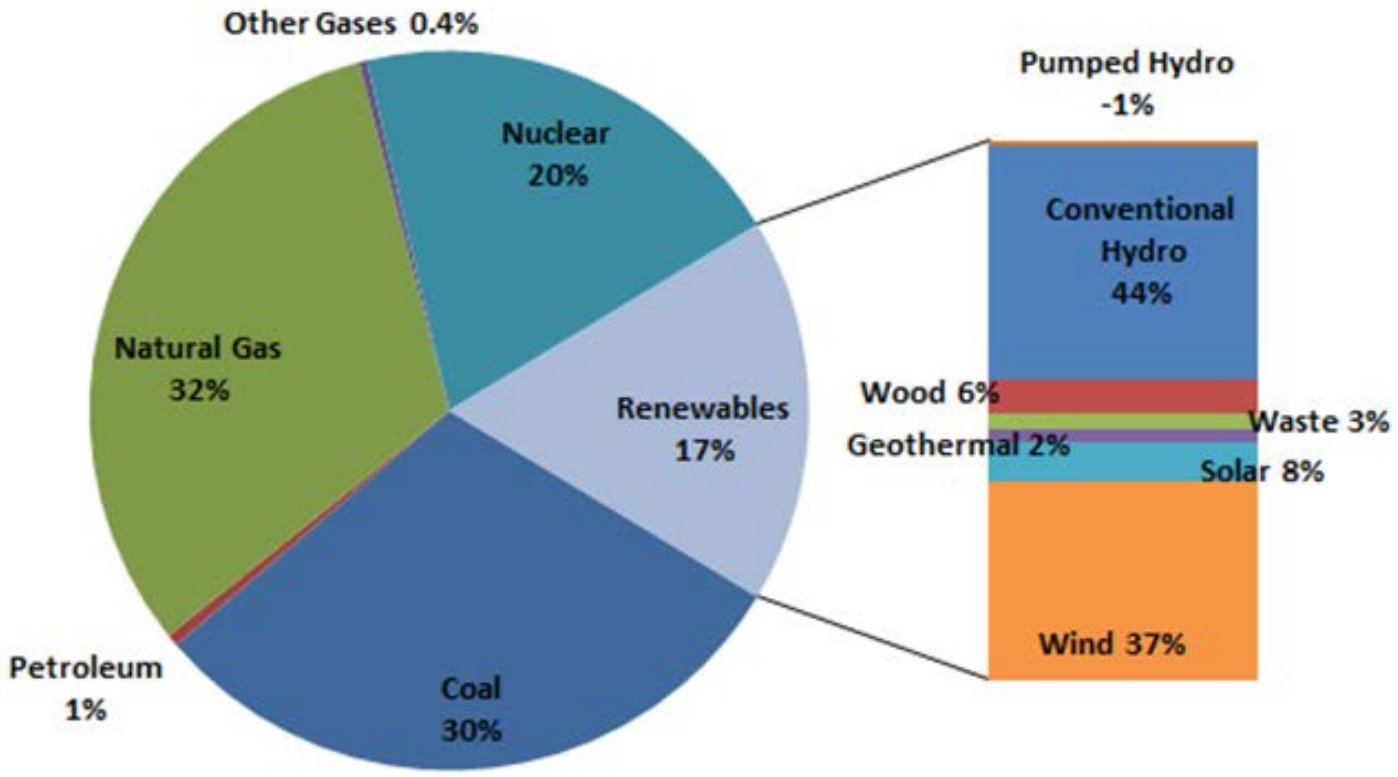
Source: EIA

2017 U.S. Energy Consumption by Source



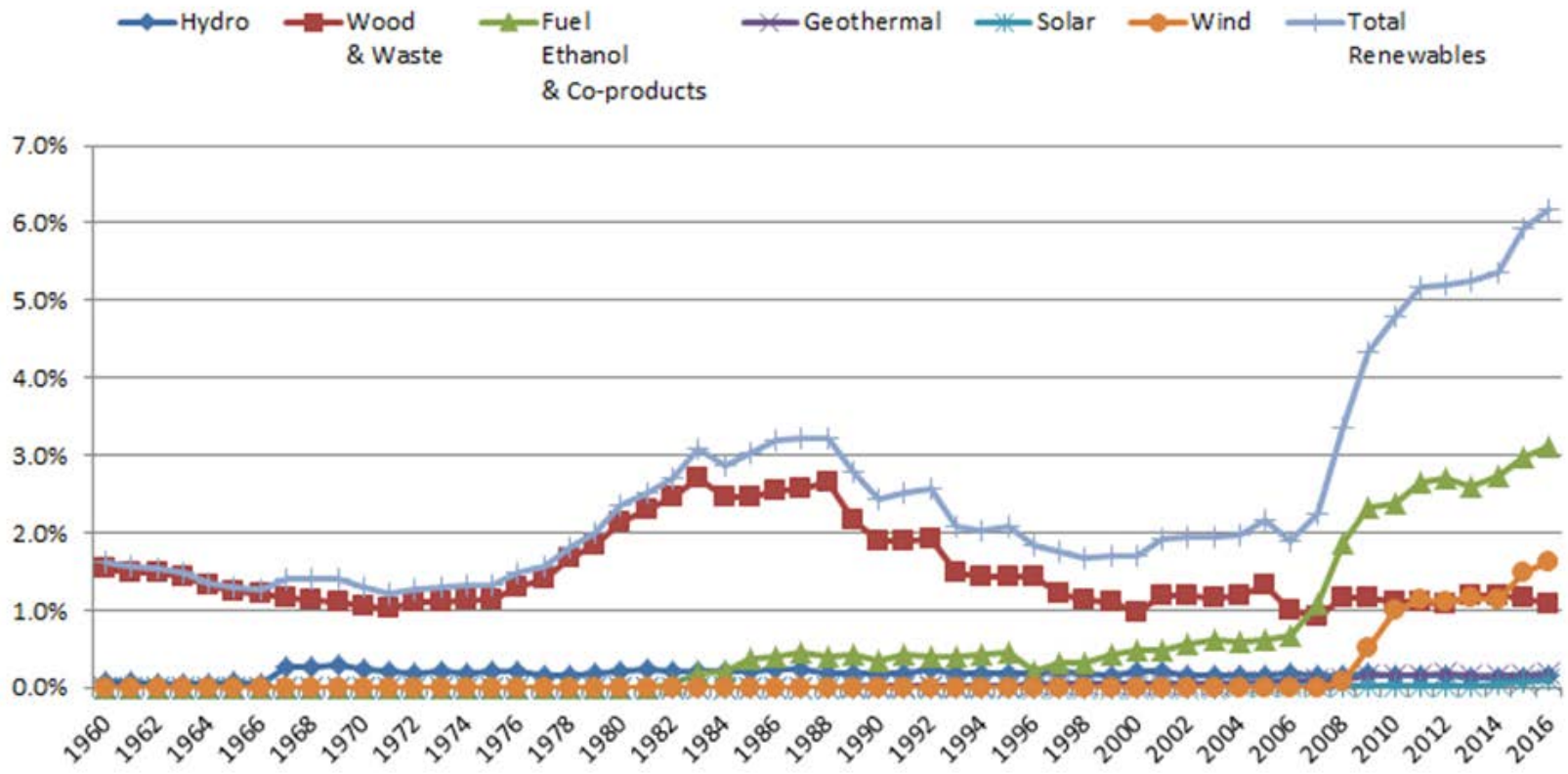
Source: EIA

2017 U.S. Electricity Generation by Energy Source



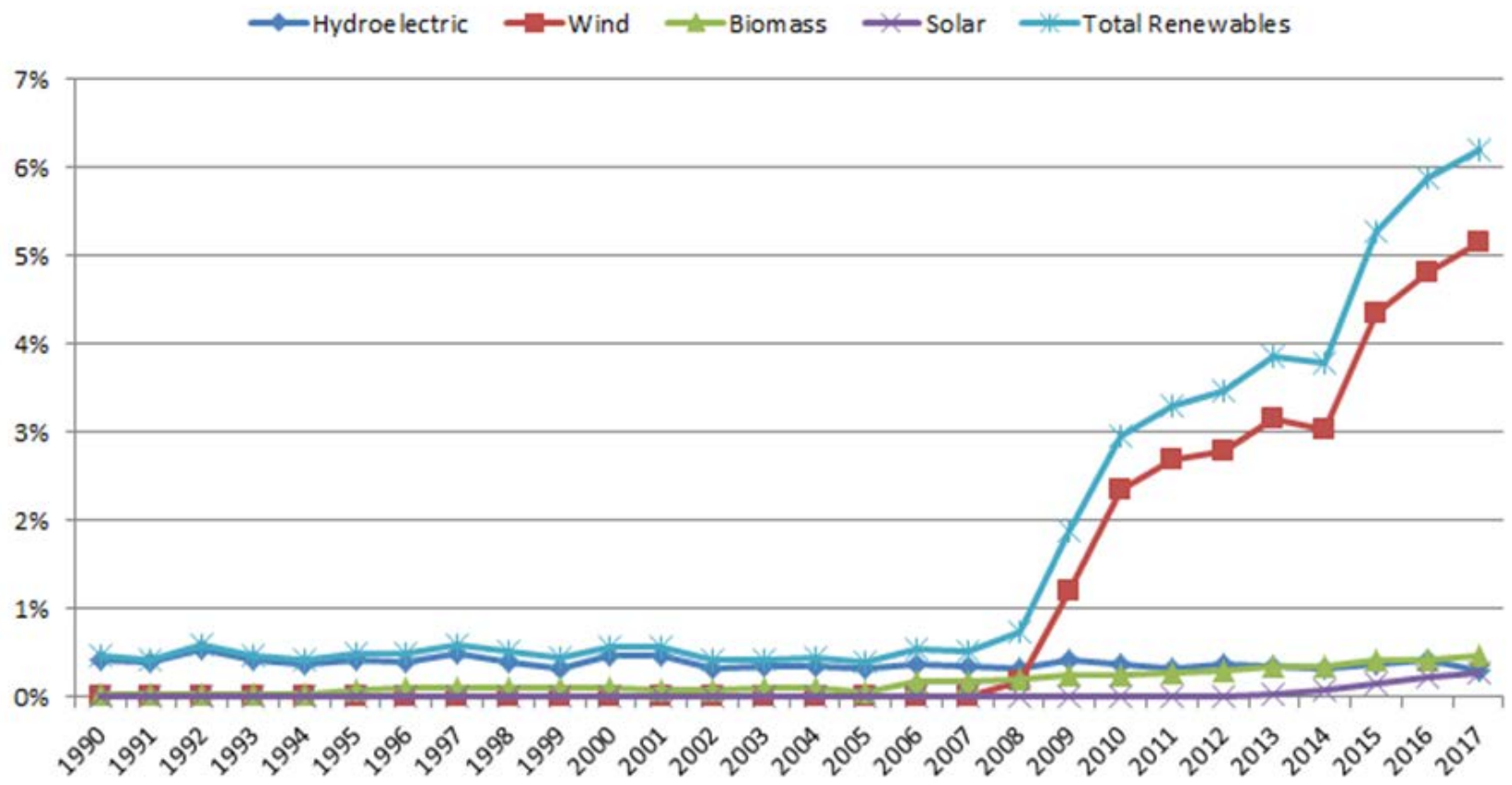
Source: EIA

Renewables Share of Indiana Total Energy Consumption



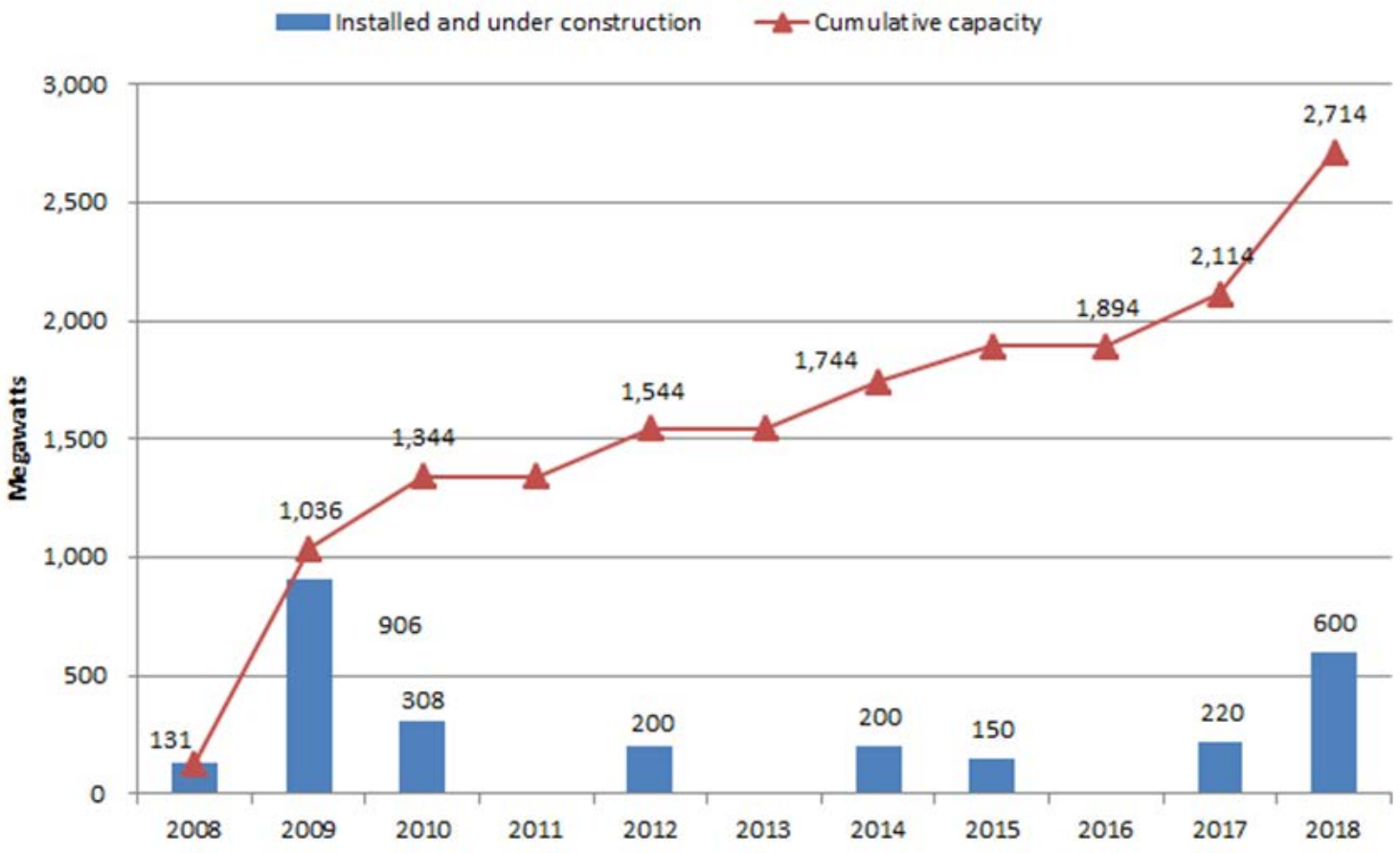
Source: EIA

Renewables Share of Indiana Electricity Generation



Source: EIA

Wind Capacity



Sources: IURC, EIA

Organic Waste Biomass

- Until the recent increase in ethanol production, this resource was the largest source of renewable energy in Indiana
  - Now third behind biofuels and wind
- It is the 2nd largest source of renewable electricity generation in the state
  - Landfill gas (79 MW)
  - Animal waste biogas (20 MW)
  - Wastewater treatment (195 kW)

Photovoltaics

- As of June, there was an estimated 254 MW of PV capacity in Indiana, almost all of it installed in the last six years
- Continued growth of utility scale PV is indicated
- Currently filed utility Integrated Resource Plans include over 2,000 MW of future PV additions

Hydroelectric Power

- Until expansion of wind energy beginning in 2008, hydroelectricity was the largest source of renewable electricity in Indiana
  - Now third behind wind and biomass
- The 88 MW project at the Cannelton Locks on the Ohio River was completed in 2016
  - Most of the output goes to utilities outside Indiana

2018 Forecast Update

- Our 2017 forecast was released in December
- We have developed an update this year that reflects more recent projections of future economic activity, population and fossil fuel prices
  - Also changed the corporate tax rate to reflect new tax law

Forecast Results

- Long-term electricity sales are expected to grow more slowly than in last year's forecast
  - 0.88% per year vs. 1.12%
- Sales to the residential and commercial sectors are slightly higher
- Sales to the industrial sector do not grow as fast as in the 2017 forecast
  - lower natural gas prices

Future Resource Needs

- Slower load growth means fewer additional resources needed in the future
  - New resources are indicated to be needed by 2023

Future Prices

- As in the 2017 forecast, real (inflation-adjusted) prices are projected to increase in the next few years, then level off
- The price forecast is somewhat lower than previously projected
  - About 0.7 cents/kWh lower in the long term

Further Information

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