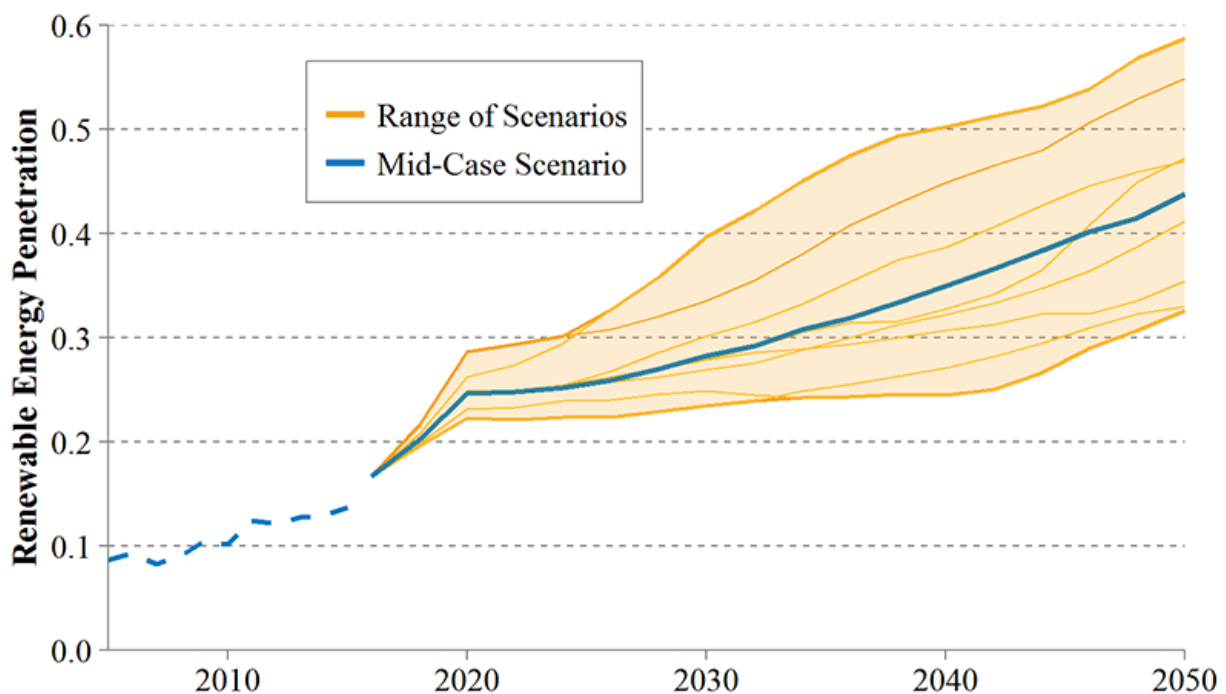


NREL 2016 standard scenarios outlook shows continued growth in renewables and gas in the U.S. power sector

December 6 2016



Renewable energy penetration in the U.S. power sector as projected by a subset of the Standard Scenarios, where the dashed line shows historical values. Penetration is defined as the fraction of load met by renewable energy. Credit: NREL.

The Energy Department's National Renewable Energy Laboratory (NREL) has released the [2016 Standard Scenarios: A U.S. Electricity](#)

[Sector Outlook](#). The outlook shows significant projected growth in natural gas and renewables through 2050 driven by abundant, low-cost natural gas and renewable energy cost declines and performance improvements. The Standard Scenarios are designed to capture a range of possible futures across a variety of factors that could impact power sector evolution.

The report discusses four areas of recent and projected future change in the U.S. electricity sector: [renewable energy](#) cost declines and associated growth, abundance of low-cost [natural gas](#) and associated generation, rapid growth in distributed rooftop photovoltaics (PV), and power sector decarbonization. New to this year's report is the Standard Scenarios Scenario Viewer, which provides downloadable state-level capacity, generation, and other results for the scenarios included in the report.

"We are excited to share not just an outlook that explores power sector evolution—but also the underlying scenario data we used to create that outlook," said NREL Analyst and Project Lead Wesley Cole. "The scenario data can be used by others to inform their own independent analysis while still drawing on the modeling and expertise used to create the scenarios."

Now in its second year, the Standard Scenarios consist of 18 power sector scenarios, which have been projected using NREL's Regional Energy Deployment System (ReEDS) long-term capacity expansion model and the dGen rooftop PV diffusion model. The purpose of the Standard Scenarios output data and the associated report is to provide data, context, and discussion to inform stakeholder analysis and decisions that can impact the future direction of the U.S. power sector. The work is supported by the Energy Department's Office of Energy Efficiency and Renewable Energy.

The Standard Scenarios results and report products are available [online](#).

NREL Analyst and Project Lead Wesley Cole will host a webinar at 1 p.m. MST (3 p.m. EST) on Dec. 6 to describe the analytical products in detail, show examples of these products and their uses, and provide an opportunity to ask questions. Register for the webinar [here](#).

This work is part of a broader framework NREL introduced in 2015 to improve the robustness and comparability of electric sector analysis by the lab, academia, and other entities in the [energy](#) analysis community. The framework also includes the Annual Technology Baseline, which contains detailed current and future projections of cost and performance data for electricity generation technologies, such as wind, solar, geothermal, hydropower, coal, natural gas, and nuclear.

Provided by National Renewable Energy Laboratory

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