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Electric Industry Generation Capacity, and Market Outlook: National Rural Electric Cooperative Association Report



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The National Rural Electric Cooperative Association ("NRECA") issued a June 2017 (updated) report entitled:

Electric Industry Generation, Capacity, and Market Outlook ("Report")

The Report was prepared by Joseph Goodenbery, Allison Hamilton, Lauren Khair, Michael Leitman of Business & Technology Strategies.

NRECA represents more than 900 consumer-owned not-for-profit electric cooperatives, public power districts, and public utility districts in the United States.

The Report is characterized "as presenting high level analyses and projections of electricity capacity and Generation, and Transmission and Markets to provide a summary of the current state of the industry and where it may be headed, from both a national view and from the perspective of electric cooperatives." The intent of the Report's information is stated to be to provide cooperatives the ability to be "better positioned to confront the challenges posed by shifting market fundamentals and future uncertainty."

The Report's "key points" are stated to include:

- Due to widespread changes throughout the industry, nearly 22 GW of capacity from coal-fired units shut down in 2015 and 2016, with an additional 28 GW scheduled to retire before 2040.
- Due to low natural gas prices, 2016 was the first year that natural gas generation exceeded coal on an annual basis.
- Low natural gas prices, and in turn low settlement prices in wholesale energy and capacity markets, continue to put pressure on nuclear units, with nearly 7.2 GW of nuclear capacity scheduled to retire by 2025.
- Out of the 114 GW of new capacity planned for the 2017-2027 period, nearly 59% is from natural gas combine-cycle units, with wind and solar making up another 34%.
- Federal tax incentives have made renewal technologies more cost-competitive which led to utilityscale renewables dominating the new additions in 2016, accounting for 63% of capacity additions in that year.
- According to the most recent levelized cost analysis, utility-scale solar costs for crystalline panels dropped 85% and utility-scale wind costs dropped 66% in the last seven years.

- As intermittent resources are making up a larger share of capacity being added to the system to replace baseload coal and nuclear retirements, the industry is more likely to face challenges with regard to resource adequacy and reliability.
- With the increase of intermittent resources on the bulk power system, transmission investments are projected to top 22.5 billion dollars in 2017.
- Though still expected to rise over time, gas prices at Henry Hub are forcasted by EIA in AEO2017 to be 25-30% lower over the 2017-2040 period than was estimated a year and a half earlier in AEO2015. EIA projects that the price at Henry Hub will not reach \$5 per MMBtu until after 2030.
- Generation from renewal resources is projected by EIA to increase by almost 70% from 2017 to 2040, at an average annual growth rate of 2.3%.

A copy of the report can be downloaded <u>here</u>.