

GAO Highlights

Highlights of [GAO-18-131](#), a report to congressional committees

Why GAO Did This Study

Electricity grid operators, who operate the network of power lines, seek to ensure they will have adequate resources, such as power plants, to meet customers' future electricity needs. Grid operators use various approaches to do so, including capacity markets—markets through which owners of power plants can be paid in exchange for making a commitment that their power plant will be available to provide electricity at a specified time in the future. FERC is responsible for overseeing grid operators as well as capacity and other electricity markets to ensure that the markets result in prices that are “just and reasonable.”

A report accompanying a bill for 2016 energy and water development appropriations includes a provision for GAO to review the use of capacity markets in the United States. GAO's report (1) describes U.S. capacity markets, (2) examines available information about resource adequacy and related costs in regions with and without capacity markets, and (3) examines the oversight of capacity markets. To conduct this work, GAO analyzed data on electricity costs and resource trends from the four regions with capacity markets, reviewed relevant reports and filings, and interviewed government officials and grid operators' representatives.

What GAO Recommends

GAO is making three recommendations, including that FERC (1) take steps to improve the quality of its data and (2) regularly assess the overall performance of capacity markets. FERC generally agreed with GAO's findings and recommendations.

View [GAO-18-131](#). For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

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ELECTRICITY MARKETS

Four Regions Use Capacity Markets to Help Ensure Adequate Resources, but FERC Has Not Fully Assessed Their Performance

What GAO Found

In four regions of the United States, the Federal Energy Regulatory Commission (FERC) has approved capacity markets. These markets are generally designed to provide an additional financial incentive to build and retain enough power plants to meet electricity needs, beyond incentives provided through other electricity markets. However, these four capacity markets have differences. For example, two obtain commitments from plant owners 3 years before electricity is needed, while two obtain commitments closer to when electricity is needed.

Available information on the level of resource adequacy—the availability of adequate power plants and other resources to meet customers' electricity needs—and related costs in regions with and without capacity markets is not comprehensive or consistent. For example, available data show that regions with capacity markets spent over \$51 billion from 2013 through 2016 for commitments from power plant owners that their plants would be available to provide electricity. However, these payments may not reflect the full cost of resource adequacy in these regions, and data on the other costs were not available. Moreover, consistent data on historical trends in resource adequacy and related costs are not available for regions without capacity markets, though forward-looking projections based on the latest available data indicate that most of the country is expected to have adequate resources through 2026. FERC collects some useful information in regions with and without capacity markets, but GAO identified problems with data quality, such as inconsistent data. According to federal standards for internal control, agencies should use quality information to achieve their objectives. By improving data quality, FERC's and Congress' ability to understand and oversee the capacity markets could be enhanced.

FERC, with assistance from grid operators and others, conducts oversight of capacity markets to, among other things, detect potential misconduct by market participants. However, FERC has not fully assessed the overall performance of capacity markets. In particular, FERC has not established performance goals for capacity markets, measured progress against those goals, or used performance information to make changes to capacity markets as needed. GAO's prior work has found that federal agencies can use performance information to improve results. Additional performance goals could be useful, based on GAO's review of FERC and other documents. For example, in 2013, in an internal examination of one region's capacity market, FERC staff identified five desirable characteristics—for example, whether power plants and other resources receiving capacity payments were available when needed—against which FERC conducted a one-time assessment. This represents one example of performance goals that FERC could develop to measure capacity market performance, but FERC has not conducted this analysis for other regions with capacity markets nor updated this analysis. Capacity markets have faced performance problems in the past, with three regions raising concerns since 2014 that the design of their markets was not sufficient to ensure that there were adequate resources to meet customer demand in their regions. By more fully assessing performance, FERC may increase opportunities to identify and address potential performance problems and to share effective approaches across capacity markets. This may help ensure customers do not pay more than necessary for resource adequacy.