

FERC Energy Storage Rule Is A Grid Game-Changer

By **Keith Goldberg**

Law360 (February 16, 2018, 9:24 PM EST) -- The rule finalized Thursday by the Federal Energy Regulatory Commission that makes a place for energy storage in the nation's wholesale electricity markets is a groundbreaking step that could reshape the U.S. power sector, energy experts say.

While the details still must be hashed out by the regional grid operators that run the wholesale markets, experts say the framework for energy storage participation laid out by FERC will jump-start investment in the sector, further accelerate deployment of renewable energy on the grid and potentially spell doom for marginally economical fossil fuel power plants.

"This final rule is a clear sign from FERC that storage is here to stay and that it is just as important as any other energy resource that participates in markets today," said Colette Honorable, a FERC commissioner from 2014 to 2017 who is now a partner at Reed Smith LLP. "Storage is the next big game-changer in the energy sector."

Here are key takeaways from FERC's energy storage actions and key things to watch for as they're implemented.

A Jump Start for Energy Storage Development

FERC's final rule directs regional grid operators to revise their tariffs to establish market rules that "properly recognize" the physical and operational characteristics of electricity storage providers. Regional grid operators must ensure that energy storage resources are allowed to provide all the energy, capacity and ancillary services they're capable of, can be dispatched onto the grid by request, and can set wholesale market clearing prices as both a seller and buyer of electricity.

Now, energy storage providers have a federal regulatory backstop to be paid for their services.

"The central challenge for the entire storage industry has been the lack of a reliable, scalable business plan and revenue source," said Stoel Rives LLP energy development partner Morten Lund, who chairs the firm's energy storage initiative. "Batteries are essentially ancillary service machines. If all goes well, then in a mere two years or so, you will have utilities with tariffs for ancillary services, basically."

The possibility of a steady revenue stream means more energy storage project development, and more willing project investors, experts say. Crowell & Moring LLP energy partner Elliot Hinds joked that he's "getting a lot of high-fives" from his energy storage clients.

It's not just that FERC's rule opens the door to energy storage participation in wholesale markets, Hinds said. The rule also takes smaller steps to level the playing field for energy storage with other energy resources that are providing ancillary services in those markets, he said.

"That's what financiers and banks need to see," Hinds said. "They need to see as much stability in the revenue model as possible."

A Silver Bullet for Renewables

Renewable energy sources like wind and solar are becoming larger parts of the U.S. electricity mix but are variable resources and can't be dispatched on notice. Energy storage has long been seen as a way around those obstacles, and giving it a place in wholesale markets will in turn make it easier for more renewable energy to make it onto the grid, experts say.

"The final rule by FERC is indeed a game-changer for the renewable sector," Honorable said. "In order to support reliability, particularly when the wind is not blowing and the sun is not shining, storage is a right-on-time resource to store these important, carbon-free resources."

Storage and renewables are co-dependent: more renewables on the grid pushes the need for more storage, while more availability of storage on the grid makes renewables more attractive. The ability for energy storage resources to be paid in wholesale markets opens the door to further deployment of so-called "renewables-plus-storage" projects capable of competing with conventional power plants, experts say.

"It's exciting that you can have a renewable resource that now can, as an intermittent resource, potentially serve in a baseload capacity to be truly eligible for capacity payments," said Hinds, speaking of the payments electricity suppliers receive for providing power to meet future demand. "That's extraordinary."

A Warning Flare for Fossil Fuel Power Plants

The prospect of energy storage helping renewables become even more competitive in wholesale electricity markets, especially if more renewables-plus-storage projects make their way onto the markets, is another worrisome sign for independent power producers already struggling with flat electricity prices, experts say.

"If you're a traditional, fossil-based generation resource on the margin, this is not going to help your economic situation at all," Holland & Knight LLP partner Mark Kalpin said.

The first casualties could be so-called peaker plants, gas-fired power plants that only run when there's high electricity demand.

"The need for a peaker plant, that's going to be the first thing that will go to batteries," Lund said. "Once you have enough of those peaker batteries installed, you can start using your wind and solar to replace baseload generation."

But experts say the notion of a one-two of renewables and storage pushing gas — which has overtaken coal as the biggest source of U.S. electricity — off the grid is pie-in-the-sky thinking at this point. For one thing, there will have to be a massive scale-up in wind and solar development, but storage can also be paired with gas-fired power.

"Domestic gas will be a part of the energy mix for many years," Honorable said. "But what we now have is another tool in our toolkit to employ that will help the reliability and resilience of the grid."

All Eyes Turn to the Regional Grid Operators

While FERC set the basic ground rules for energy storage to participate in wholesale markets, it gave regional grid operators plenty of leeway in incorporating those rules into their tariffs and the wholesale electricity markets they run.

FERC acknowledged that approaches to energy storage market participation will vary based on region, and Hinds said those differences will bear watching.

"These rules, they all impact price," Hinds said. "It's going to determine where different resources and services are going to be deployed more rapidly than others."

Nuts-and-bolts issues for regional grid operators will include determining exactly how the capabilities of storage providers will be defined in their markets, as well as power auction bidding parameters for storage providers.

"What happens when an energy storage device can provide multiple services at the same time — how do you understand and set what it can be paid for?" Kalpin said. "If it's providing multiple ones at the same time, does one preclude the other?"

FERC was also careful to emphasize that state policies will influence how energy storage participates in wholesale markets. States including California, New York and Massachusetts have already imposed their own energy storage mandates, and electricity distribution systems are largely under state jurisdiction.

"Between [regional grid operator] regulations, state regulations and states trying to incentivize energy storage, how are those programs going to play alongside each other?" Kalpin said. "There are a lot of seams that are going to have to be worked out and thought through."

FERC's Next Step: Distributed Energy

FERC was also mulling removing wholesale market barriers for aggregators of distributed energy resources such as rooftop solar panels and microgrids, but ultimately decided to hold a technical conference to further examine the issue before crafting a final rule.

Michael Panfil, the Environmental Defense Fund's director of federal energy policy, said opening up markets to distributed energy resources is the logical next step, given that they provide additional benefits to the grid and can be paired with energy storage as well.

"I can imagine a lot of interplay between energy storage and distributed energy resources, as far as synergy between them," Panfil said. "Solar plus storage: that has a value proposition that [already] exists."

And while Panfil and other clean energy advocates had urged FERC to put out storage and distributed energy rules at the same time, others say it's understandable that the agency is taking its time. The presence of distributed energy resources in regional wholesale markets could dramatically shift the historical one-way model of the grid — large power producer to transmission to distribution — to a more decentralized model, even more so than energy storage will.

Carving out a FERC-jurisdictional home for distributed energy will also produce a lot more overlap and potential conflict with state policies, experts say.

"When you add more behind the [electric] meter and put that into the market ... you have even more potential for disruption when you aggregate all those resources," Hinds said. "How do you deal with local utilities' management of their distribution grid? That's a big one to watch going forward."

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