



Ancillary services support the reliable operation of the transmission system as it moves electricity from generating sources to retail customers. PJM's ability to dispatch generation resources up or down and cycle them on or off in relatively short periods of time to balance supply and demand throughout the day is important today and will grow in importance in the future.

At PJM, ancillary services are dispatched via market-based and non-market-based approaches. PJM operates several markets for ancillary services – regulation, synchronized reserve and non-synchronized reserve. These markets compensate participants for providing reliability services to the grid.

Regulation service corrects for short-term changes in electricity use to maintain the stability of the power system. To maintain the desired frequency, regulation service quickly adjusts generation output up or down as needed in response to fluctuations in demand. Load-serving entities can meet their obligation to provide regulation to the grid by using their own generation, by purchasing required regulation via contract with another party or by buying it through the Regulation Market.

Currently participating in the PJM Regulation Market are several energy storage resources, including battery installations, flywheels and a group of electric vehicles, along with more traditional fossil fuel-fired and renewable resource types. These resources are paid for providing frequency regulation when called upon by PJM.

Regulation resources are paid for their performance, defined by how quickly and how accurately they respond to PJM's dispatch signal. This performance-based approach rewards faster and more accurate resources with higher compensation.

Synchronized and non-synchronized reserve services supply electricity when the grid has an unexpected need for more power on short notice. The power output of generating units supplying synchronized and non-synchronized reserve can be increased quickly to supply the energy needed to balance supply and demand. Demand response resources can also bid to supply synchronized reserve by reducing their energy use on short notice. Units providing non-synchronized reserve are offline but are capable of being brought online quickly.

Load-serving entities can meet their obligation to provide synchronized reserve or non-synchronized reserve to the grid by using their own generation, by purchasing it under contract with another party or by buying it through the Synchronized Reserve Market or Non-Synchronized Reserve Market.

Sept. 13, 2024

