Paris Session 2022

Implementation and Application of the Demand Response Mechanism and the Concept of Active Energy Complexes for the Development and Improvement of the Efficiency of UPS of Russia

Study Committee C1 “Power System Development And Economics”

PS 2 Energy sector integration and tackling the complexity of multi-faceted network projects

Question 2.3.3 What approaches are used to quantify the system service needs—as well as their benefits—of battery storage, and means of flexibility for the electricity system, and how are those benefits comparable in order to make an optimal portfolio to be used by system operators?

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Demand Response values quantification

There is no generating capacity deficit in UPS of Russia.

DR mechanism is aimed to electric energy and power market economical efficiency increase.

The timesteps of DR values quantification:

- quarterly selection of DR services providers and fixing obligations of price and volume of the services,
- daily submission of notifications by aggregators about readiness/unavailability of DR providers to provide services for consideration in day-ahead market calculations,
- decision about using DR is accepted in frames of day-ahead market procedure calculation and submit to DR providers on day before day of capacity decrease. DR is decided when the economic effect of DR exceed the threshold value (assessment is done for day-ahead market calculation without and with DR).

The technological neutrality approach is used for DR. Requirements concerns consumers as whole, but not for the type of technology that is used for DR.

DR consideration in balancing (intraday) market and frequency control provision by DR are planned in prospective.