

System services market is operated in UPS of Russia with the aim to provide reliable operation of the power system. System services market consists of the following services:

- rated primary frequency control,
- secondary frequency and active power flows control,
- reactive power control using generating units, that not involved in active power generation,
- demand response.

According to the Russian legislation, energy storages can participate in system services of frequency control (rated primary frequency control, secondary frequency and active power flows control) and also demand response behind the meter (to make influence on active power change). Energy storages participate in frequency control services by common rules as generating units, that's why there is no example of energy storage frequency control services because of high price.

There are no any requirements in demand response mechanism about energy storage participation. The technological neutrality approach is used for DR mechanism. Requirements concerns consumers as whole, but not for the type of technology that is used for DR. But there are some examples of energy storage participation in DR.

The consumption control by load increase in frames of DR is considered for mid-term perspective additionally to load decrease.

Using energy storages for voltage control is under discussion. There is no any projects that can be realized based on current rules.

If RES generation share will be so high in UPS of Russia as influence will be crucial, more strict requirements for power output change (speed) of energy storages depending on frequency deviation will be considered in long-term perspective.

