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Coefficients approach and organizational procedure in the resource adequacy determining.

Speaking about the probability of an event occurrence, we first of all face the question of calculating the probability of this event. The probability can be estimated by computer modeling methods or by direct counting using statistical data from previous years. At the same time, computer modeling is also based on initial statistical data, however, possibly more primary. So, in any case, the answers to the questions lie in the study of statistics. From the statistics, you can learn both the frequency of occurrence and the duration of the estimated adverse events. At the same time, if we talk about hydroelectric power plant resources, it is quite obvious that low-water periods can be quite long-lasting and last even more than a year. In low-water periods, the main resource of replacing the generation of hydroelectric power plants falls on thermal power plants. In Russia, in Siberia, the share of hydroelectric power plants in the production structure is about 50%, which affects the risk assessments of a serious change in the structure of production in low-water periods.

This issue is solved, firstly, by the requirements for ensuring the necessary fuel supply at thermal power plants (the normative value of fuel supply in areas with a large share of hydroelectric power plants is noticeably higher). Secondly, using a special coefficient that takes into account a possible low-water year. This coefficient is used at capacity market auction where supply and demand curves determine available (and paid) capacity for a year. The temperature coefficient is used as well, reflecting the possibility of extremely cold weather during some winter period (a week).

In Russia, preparation for the autumn-winter period, in addition to the above-described market based approach with coefficients is controlled by several government agencies. The quality of preparation is assessed according to the following indicators:

- Certificates of readiness of energy facilities;
- Calculation of readiness rating by region;
- Carrying out repair work;
- Formation of the necessary fuel reserve;
- Taking into account the coefficients of low water, cold weather