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German energy development management:

focus on LNG terminals and environmental projects

The problem of providing energy carriers is one of the most difficult factors of development and is especially aggravated in the current conditions. The new challenges of modern reality receive management solutions corresponding to their complexity, which, it seems, will be able to ensure the functioning of the economy, and then its transition to a new, qualitatively higher level.

The traditionally formed model of the energy supply of the Federal Republic of Germany, which was formed for many decades, did not provide for marine terminals for receiving vessels with liquefied natural gas (LNG). As a result of the decisions made in the spring of 2022, four terminals were initially planned to be put into operation in the coming years, two of which are expected to be put into operation at the end of 2022 - the beginning of 2023. We are talking about LNG terminals - special regasification vessels (Floating Storage and Regasification Units, FSRU). The capacity of each FSRU is an average of 5 billion cubic meters of gas per year.

Such terminals will contribute to the supply of natural gas to Germany and are capable of replacing pipeline gas supplies to a large extent.

Analysis of the development and current situation of Germany's energy supply showed the following. The model of supplying Germany with natural gas, which has developed historically, provided for the pipeline way of obtaining it and excluded the supply of raw materials by sea from other countries, which served as the reason for the lack of terminals for receiving LNG in German ports.

The large-scale changes that have taken place have led to a rethinking of the traditional gas supply model, as a result of which the emphasis has shifted towards the construction of LNG terminals in a number of German seaports. Projects for the construction of LNG receiving terminals are actively supported by the German government.

The choice of ports for the placement of terminals is determined by the possibility of the entry of large sea vessels and the presence of already existing infrastructure, the proximity of significant underground gas storages and integration into the gas transportation system of Germany and other European countries.

LNG terminal projects are considered in the context of gas supply not only for Germany, but also for other European countries.

Stationary terminals, which are to replace floating ones in the future, should be structurally capable of receiving both LNG and hydrogen.

The German state invests in LNG terminal projects in cooperation with representatives of the world's largest companies as part of a large-scale public-private partnership.

Other types of power plants in Germany may also be such.

Due to logistical advantages, brown coal-fired power plants can be an important part of the country's energy system at the current stage. In the future, wind power plants, solar power plants, and thermal power plants based on environmentally friendly water should play a decisive role in the German energy sector.