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ANALYSIS OF POWER SYSTEM DEVELOPMENT OF THE BALTIC STATES

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ABSTRACT

In paper analyzed development conditions of Latvian power system, selected the optimal sustainable development methods and technologies. In the paper the following is described: 1) the transmission network and generation system development model; 2) result of Latvian power system development analysis till 2050.

Research revealed that taking into account the development conditions of Latvian power system, in the nearest future, especially after Ignalina NPP shutdown, we have a base power capacity deficit. Therefore, the topical problems are related to new power plant construction, transmission network reconstruction taking into account liberalized electricity market conditions. The only way of solving the problem is building a modern nuclear power plant.

Modern nuclear power plants have high level of protection against harmful events. The main points of emergency management are:

- Training – use of plant control simulators
- Symptom-based operating procedures
- The on-site emergency plan
- The 3D-3P (triple diagnosis – triple prognosis) messages
- The government emergency organization

The paper presents a detailed description of these points.