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INFORMATION SYSTEMS FOR ELECTRIC POWER GRIDS CONTROL IN NUCLEAR INDUSTRY

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Development of power supply systems and implementation of advanced digital technologies in power generation and distribution are of key importance for the nuclear industry that is an important producer of green power engineering for Russia. It is necessary to ensure the reliability and high quality of electricity.

The traditional system of power grid control involves the use of old technologies and manual control systems to deliver electricity from power plants to end consumers. It has some advantages such as being relatively cost-effective and using proven technology. However, the system has some disadvantages such as limited monitoring, high-energy losses and inadequate efficiency during peak loads on the grid.

With the development of traditional power generation technologies, there is a need to solve emerging problems that can currently be solved only through implementing modern information systems for power grid management for monitoring and control.

Taking into account the creation of new system elements, the key positive aspects of the implementation of information management systems are the dynamic control of power grids, namely: efficient transmission, distribution, demand management and increased security.

The material studied showed that the solution to the problems of the traditional electric power industry is the implementation of information systems for power grids control that can provide a full range of solutions for the energy processes control and consumers supply.