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APPLICATION OF CONTEXTUAL DATA FOR CONTROL OF DISTRIBUTED POWER GRID

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Abstract

The features of the structure of distributed power grid to the power and data level are described. The necessity of application of heterogeneous data on external conditions, power equipment operating modes and the characteristic of the load for network management is shown. The expediency of hierarchical control principle based on logical rules is substantiated. The necessity of data pre-processing and formalization in form of context in order to reduce the volume of circulating and processed information is justified. Implementing the procedure of digital filtering, verification and data forecast allowed reducing the noise and inertia of the control system. The principles of formalization of context, which reduced the volume of data transmitted and processed were elaborated. The approach of the formation of the rules allows applying intellectual control algorithms for power system, improving the quality of management.

References 8, figures 3, table 1.

Key words: context, distributed power grid, hierarchical control principle.

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