

论文

智能电网信息标准化在调度中心的应用

荆铭<sup>1</sup>, 许洪强<sup>1</sup>, 梁成辉<sup>2</sup>

1. 山东电力调度中心, 山东省 济南市 250001; 2. 山东大学威海分校 信息工程学院, 山东省 威海市 264209

摘要:

无障碍信息共享是实现智能电网信息化和自动化的基础, 要消除信息共享障碍就需要对信息进行标准化管理。分析了智能电网的信息标准化需求, 提出在各级调度机构、电力企业及智能电网多个层面建立公共信息模型统一、接口规范和信息对象编码标准的信息标准化思路, 并以山东电网调度综合数据平台系统为例进行了验证。

关键词:

Application of Information Standardization of Smart Grid in Dispatching Center

JING Ming<sup>1</sup>, XU Hongqiang<sup>1</sup>, LIANG Chenghui<sup>2</sup>

1. Shandong Electric Power Dispatching Center, Jinan 250001, Shandong Province, China; 2. School of Information Engineering, Shandong University at Weihai, Weihai 264209, Shandong Province, China

Abstract:

The obstacleless information sharing is the foundation to implement informatization and automation of smart grid, so it is necessary to carry out standardized information management to eliminate the obstacle during the information sharing. After analyzing the demand of standardized information for smart grid, the thinking of information standardized management, i.e., to build unified common information model (CIM), interface specification and coding standard of information objects for dispatching departments in various levels, power enterprises and different levels of smart grid, is proposed. The practice of the feasibility of the proposed thinking is carried out on the synthetic dispatching data platform of Shandong power grid, and the results are satisfied.

Keywords:

收稿日期 2009-12-16 修回日期 2010-06-30 网络版发布日期 2010-10-17

DOI:

基金项目:

通讯作者: 荆铭

作者简介:

作者Email: jm@luneng.com

参考文献:

[1] 国家电网公司统一坚强智能电网建设第一阶段工作全面启动[EB/OL]. [2009-08-24]. http://www.sgcc.com.cn/xwzx/zbd/08/204817.shtml. [2] 陈树勇, 宋书芳, 李兰欣, 等. 智能电网技术综述[J]. 电网技术, 2009, 33(8): 1-7. Chen Shuyong, Song Shufang, Li Lanxin, et al. Survey on smart grid technology[J]. Power System Technology, 2009, 33(8): 1-7(in Chinese). [3] 王庆红. 智能电网研究综述[EB/OL]. [2009-05-31]. http://www.gxed.com/szdw. [4] 钟金, 郑睿敏, 杨卫红, 等. 建设信息时代的智能电网[J]. 电网技术, 2009, 33(13): 12-18. Zhong Jin, Zheng Ruimin, Yang Weihong, et al. Construction of smart grid at information age[J]. Power System Technology, 2009, 33(13): 12-18(in Chinese). [5] 李兴源, 魏巍, 王渝红, 等. 坚强智能电网发展技术的研究[J]. 电力系统保护与控制, 2009, 37(17): 1-7. Li Xingyuan, Wei Wei, Wang Yuhong, et al. Study on the development and technology of strong smart grid[J]. Power System Protection and Control, 2009, 37(17): 1-7(in Chinese). [6] 苗新, 张恺, 陈希, 等. 建设智能电网的发展对策[J]. 电力建设, 2009, 30(6): 6-10. Miao Xin, Zhang Kai, Chen Xi, et al. Development countermeasure of constructing smart grid[J]. Electric Power Construction, 2009, 30(6): 6-10(in Chinese). [7] 汤奕, Manisa Pipattanasomporn, 邵盛楠, 等. 中国与美国和欧盟智能电网之比较研究[J]. 电网技术, 2009, 33(15): 7-

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