

国家重点基础研究

一种基于业务断面的智能配用电通信网业务流量计算方法

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摘要:

分析了智能配用电通信业务的组成及特点, 按照配电网和用电系统的应用特点划分了配电信息采集点、用电信息采集点及营业所信息采集点3个业务断面, 并对3个断面中的业务组成进行了分析。建立了配用电通信业务向变电站汇聚的流量模型及3个业务断面业务流模型, 提出了各个业务断面流量的计算方法及3个业务断面汇聚到变电站的计算方法。通过“十二五”规划中使用的算例, 验证了所提方法的科学性和有效性。

关键词: 智能配用电 通信网 业务流量 业务断面

A New Service Section Based Method to Calculate Service Data Flow of Communication Network for Smart Power Distribution and Utilization System

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Abstract:

The constitution and features of communication service for smart power distribution and utilization system are analyzed. According to the application features of distribution network and electricity utilization system, the information acquisition in communication network for smart power distribution and utilization system is divided into three service sections, i.e., the point to collect distribution information, the point to collect electricity utilization information and the point to collect information of business office, and the service compositions in the three service sections are analyzed. A service data flow model of the communication service for power distribution and utilization that is converged towards the substation and three service flow models for the service sections are built, and the calculation methods for the service sections as well as the calculation method for the data flow converged to the substation from the sections are proposed. The reasonableness and effectiveness of the proposed method are verified by the calculation example utilized in the 12th five-year program of China.

Keywords: smart power distribution and utilization communication network service data flow service section

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