

Investigation on Cost Reflective Network Pricing and Modified Cost Reflective Network Pricing Methods for Transmission Service Charges

Authors : K. Iskandar, N. H. Radzi, R. Aziz, M. S. Kamaruddin, M. N. Abdullah, S. A. Jumaat

Abstract : Nowadays many developing countries have been undergoing a restructuring process in the power electricity industry. This process has involved disaggregating former state-owned monopoly utilities both vertically and horizontally and introduced competition. The restructuring process has been implemented by the Australian National Electricity Market (NEM) started from 13 December 1998, began operating as a wholesale market for supply of electricity to retailers and end-users in Queensland, New South Wales, the Australian Capital Territory, Victoria and South Australia. In this deregulated market, one of the important issues is the transmission pricing. Transmission pricing is a service that recovers existing and new cost of the transmission system. The regulation of the transmission pricing is important in determining whether the transmission service system is economically beneficial to both side of the users and utilities. Therefore, an efficient transmission pricing methodology plays an important role in the Australian NEM. In this paper, the transmission pricing methodologies that have been implemented by the Australian NEM which are the Cost Reflective Network Pricing (CRNP) and Modified Cost Reflective Network Pricing (MCRNP) methods are investigated for allocating the transmission service charges to the transmission users. A case study using 6-bus system is used in order to identify the best method that reflects a fair and equitable transmission service charge.

Keywords : cost-reflective network pricing method, modified cost-reflective network pricing method, restructuring process, transmission pricing

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