

Kitja Tanongjit 2008: Evaluation of Wheeling Capacity considering Optimal Power Flow of the Intermediate Utility. Master of Engineering (Electrical Engineering), Major Field: Electrical Engineering, Department of Electrical Engineering. Thesis Advisor: Assistant Professor Parnjit Damrongkulkamjorn, Ph.D. 109 pages.

This research presents the study of wheeling electric power through an intermediate system by considering the capacity of wheeling power and then analyzing the change of flow occurring to the intermediate system. The change of flow is the different of power flow during the wheeling transaction compared to the optimal power flow of the intermediate system prior to the wheeling. During the wheeling transaction, all generators are fixed to optimal dispatch in order for the intermediate system to maintain its optimal cost. The change of flow in the intermediate system shows how the wheeling affects the system and can be used to determine the appropriate wheeling charge. When all line flows are obtained, the wheeling cost can be determined by using the line-by-line method.

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Thesis Advisor's signature

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