

PJM/Midwest ISO Single Market Benefit Analysis

Description of Simulation to be Conducted

In support of their October 31, 2005 Joint and Common Market filing with the FERC, PJM and MISO conducted a cost/benefit analysis of the creation of a single market across the two RTO footprints. The benefits used in this analysis were approximated based upon the decrease in production cost that would result from the increase in energy exchange sufficient to cause price convergence between the two systems. PJM and Midwest ISO indicated to stakeholders that a more comprehensive analysis would be conducted following the filing in order to verify these benefit calculations. The purpose of this document is to summarize the methodology to be used to conduct that study.

The study will use commercially available production cost/powerflow analysis tools to simulate the dispatch of the PJM and Midwest ISO systems over an annual period (8,760 hours). The simulation will assume a security constrained, economic dispatch as is currently conducted by both RTOs. A complete model of the transmission system for the entire Eastern Interconnection will be used, including the applicable transmission facility limits for all facilities currently monitored by each RTO. The analysis will be conducted in two major steps.

Step 1: PJM and Midwest ISO as Separate Systems

The first step will be to conduct an annual simulation dispatching the two RTO footprints separately. This simulation will consider the two systems as separately dispatched areas, but will include the impacts of the market-to-market redispatch process that allows the two RTOs to dispatch for each other's constraints when it is economically efficient to do so. Transaction levels between the two RTOs in the simulation will be modeled to accurately reflect that which is currently occurring and to reflect the price differences that have been experienced between the two RTOs historically since April 2005.

Step 2: PJM and Midwest ISO Dispatched as a Single System

The second step will be to conduct an annual simulation dispatching the two RTO footprints as a single system. The simulation will model a single, security constrained, economic dispatch across the combined footprint, respecting all transmission limitations on those facilities monitored by either PJM or Midwest ISO.

In order to calculate the benefit of the single, combined dispatch, the total production cost from the two simulations will then be compared. Any reduction in total production cost from the first simulation to the second will be considered to be the net benefit of moving to a single market. Any benefits resulting from the PJM market integrations, the Midwest ISO market launch, and the implementation of Market-to-Market Coordination under the PJM/Midwest ISO Joint Operating Agreement will be assumed to have already been achieved for the purposes of this analysis.

Please submit comments/questions on this document to Alan Adams (aadams@midwestiso.org) and/or Stu Bresler (bresler@pjm.com).