Executive Summary for Package A - July 25, 2018

Overview

Package A was developed by PJM and MA and seeks to make enhancements to the process by which PJM sets the shadow price of a violated transmission constraint. Today, when a transmission constraint is violated, the shadow price of the transmission constraint is not set to the transmission penalty factor. Instead, PJM currently uses a procedure called constraint relaxation logic. This logic modifies the market clearing so transmission constraint penalty factors do not set the constraint shadow price. The constraint relaxation logic causes clearing prices to be inefficient and inaccurately reflects market conditions.

Package A can be grouped into two major components, 1) defining the default penalty factors and the shape of the transmission constraint demand curve and, 2) defining the process under which the penalty factors can change and creating transparency around this process.

Defining Default Values and Curve Shape

Package A proposes to keep the status quo in terms of the magnitude of the default penalty factors which are set for different types of transmission constraints in the Day Ahead and Real Time markets. This package also maintains the status quo for the shape of the transmission constraint demand curve which is currently a single step demand curve.

Defining the Transmission Constraint Control Process

Package A also proposes to remove the constraint relaxation logic and allow the transmission penalty factors to set price for a violated constraint. Dispatchers will retain the ability to increase or decrease the penalty factor when the default value is no longer sufficient to capture all controlling actions. Operational guidelines detailing the process PJM Dispatch follows when transmission penalty factors are updated were developed and [posted to the PJM website](#) as part of this effort. In an effort to make the process more transparent, guidelines under which the penalty factor can change and a formalized calculation of the new penalty factor value will be identified and published. Additionally, when Dispatch adjusts the transmission penalty factors, the new penalty factor for the constraint will be posted on Data Miner 2.

The implementation timeline for Package A would be dependent on FERC approval. Based on the projected endorsement and filing timeline, PJM anticipates this could be implemented in Winter 2019.

Note: For purposes of this document and its reference to the options matrix, the terms "penalty factors" and "marginal value limits" are used interchangeably.