PJM Interconnection developed the Perfect Dispatch process as a way to analyze the efficiency of its dispatch operations and to spur continuous improvement in dispatching. The Perfect Dispatch metric is a measurement of the ability of dispatch operations to minimize PJM’s system production cost while meeting reliability requirements.

The “perfect dispatch” for a given day – the calculated, hypothetical unit commitment and dispatch that would result in the lowest production cost while maintaining reliability – could be achieved in real-time operations only if all system conditions, such as the load forecast, unit availability and performance, interchange and transmission outages and constraints, occurred exactly as predicted.

While hypothetical and not realistically achievable, the calculated Perfect Dispatch serves PJM as a valuable baseline for measuring performance and identifying opportunities to improve the dispatching process. The metric compares the calculated daily production cost to the actual real-time daily production cost to derive a “percentage of perfect” score.

The estimated savings in production costs for PJM members since Perfect Dispatch was implemented during 2008 are approximately $1.34 billion. That represents the equivalent of PJM’s operating budget for three and a half years.

Because of the scale of PJM’s operations, even small improvements in dispatch performance can produce significant economies.

In addition to the production cost savings, the Perfect Dispatch initiative provides other significant benefits for PJM’s members, including reduced emissions from the generation fleet and more efficient overall use of generation resources, including less wear and tear on the equipment.

Aug. 23, 2022