

Introduction

At the request of the Design Working Group, this paper describes the treatment of start-up costs in the DA-PCG calculation for units that were on-line at the end of previous day and had completed their minimum generation block run time

Response

There is some sub-optimality inherent in any optimization process that operates over a finite time horizon. Since EDAC commits and schedules units from midnight to midnight, it is true that it might shut down a unit at 11 pm when if it was looking over a longer horizon, it would make more sense to keep that unit on so that it doesn't have to restart the next day. EDAC may also fail to start a unit because it does not consider the benefits that starting a unit may have on the cost of meeting load the next day.

However, the optimization process does recognize the initial conditions prevailing at the time the EDAC day begins. Therefore, if for whatever reason, a unit is still scheduled to be running at midnight (HE 24)¹, the start-up cost of the unit's three part offer will not be used for HE1 for the next day's EDAC. The next day's EDAC will complete the assessment of whether it is cheaper to keep that unit running overnight instead of starting another unit using the remaining as-offered values (speed-no-load and incremental energy).

Since the start-up costs of units that are already running at midnight on the previous day will not be included in the optimization used to commit and schedule these units, we will not include these costs when calculating DA-PCG payments. Therefore, for a unit continuing to operate over the end of the previous day into the current EDAC day, only DA-PCG Components 1 through 4 will be used in the calculation.

It is important to note that this calculation differs from the DA-PCG calculation for a unit that was running the previous day and receives a schedule in the current day to complete their minimum generation block run time. This DA-

¹ Determined by reviewing constraints respected by the Dispatch Scheduling Optimizer

PCG will include as offered costs, revenues, CMSC and net OR revenue associated with the minimum generation block in the calculation.