Start and Soak Costs Proposal

CDS June 14, 2021 Joel Romero Luna

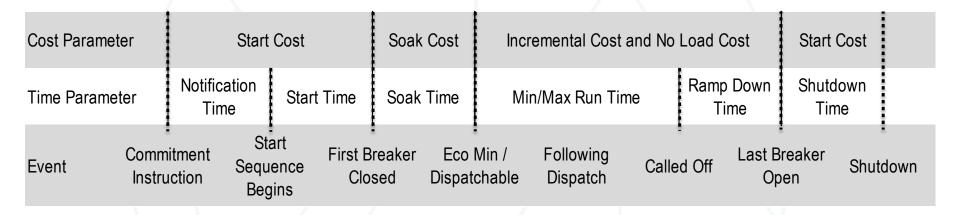


MMU Proposal

- Define start cost from notification to first breaker close.
- Create new soak parameters (soak time, soak cost, soak MWh).
- Soak cost will be from first breaker close to dispatchable (economic min).
- Soak cost will be equal to soak heat rate times fuel cost.
 - Soak heat rate will be equal to MMBtu used during soak time divided by MWh produced during soak time.
- Start inputs will be calculated based on PLS parameters.

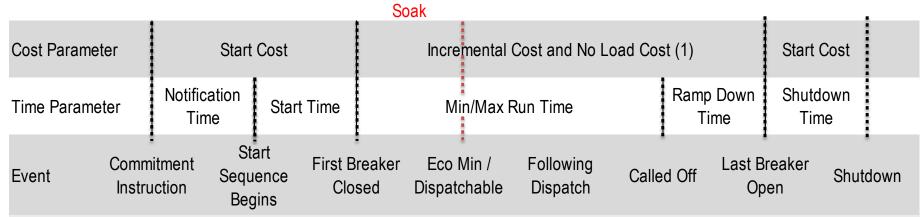
Proposal

All units:



Status Quo

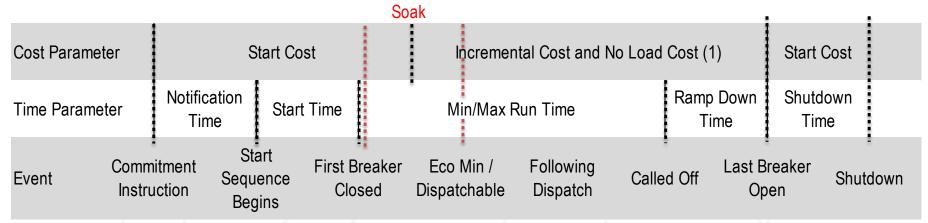
Steam turbines:



(1) Eligible for uplift compensation based on start timing and dispatch log.

Status Quo

Combined Cycles:



(1) Eligible for uplift compensation based on start timing and dispatch log.

Start Inputs Based on PLS parameters

- Inputs used in the start cost will be based on the PJM approved PLS parameters (notification time, start time, min down time).
- The amount of start fuel (MMBtu) and station power (MWh) should correspond to a period of time no longer than the sum of the notification plus start time.
- The amount of shutdown fuel (MMBtu) should correspond to a period of time no longer than the min down time minus the start time (shutdown time).

Unit Example

- Inputs
 - Notification Time: 1 hour
 - Start Time: 3 hours
 - Min Down Time: 5 hours
 - First breaker close: 14:00
 - Last breaker open: 20:00

- Start fuel and station power data will be from 10:00 until 14:00.
- Shutdown fuel data will be from 20:00 until 22:00.

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