# PJM/IMM Joint Package Highlights

MIC Special Session

March 31, 2020

- RTSCED cases will execute every 5 minutes with a target time of 10 minutes into the future
  - The initial MW for the new case will be adjusted for feasibility using the previous dispatch MW as an input
- The objective is to approve one RTSCED case for each 5 minute dispatch target time
  - Additional cases maybe be executed and approved as needed
  - The approved case time is to be at least 5 minutes from the target time
  - If a case is not manually approved by dispatch for a target time, a case will be automatically approved at a specified time or deadline
  - A RTSCED case may not be approved for target time in some instances
    - Typical reasons include data errors or software failures
- Each case execution will use latest input data available corresponding to the interval ending at the target dispatch time
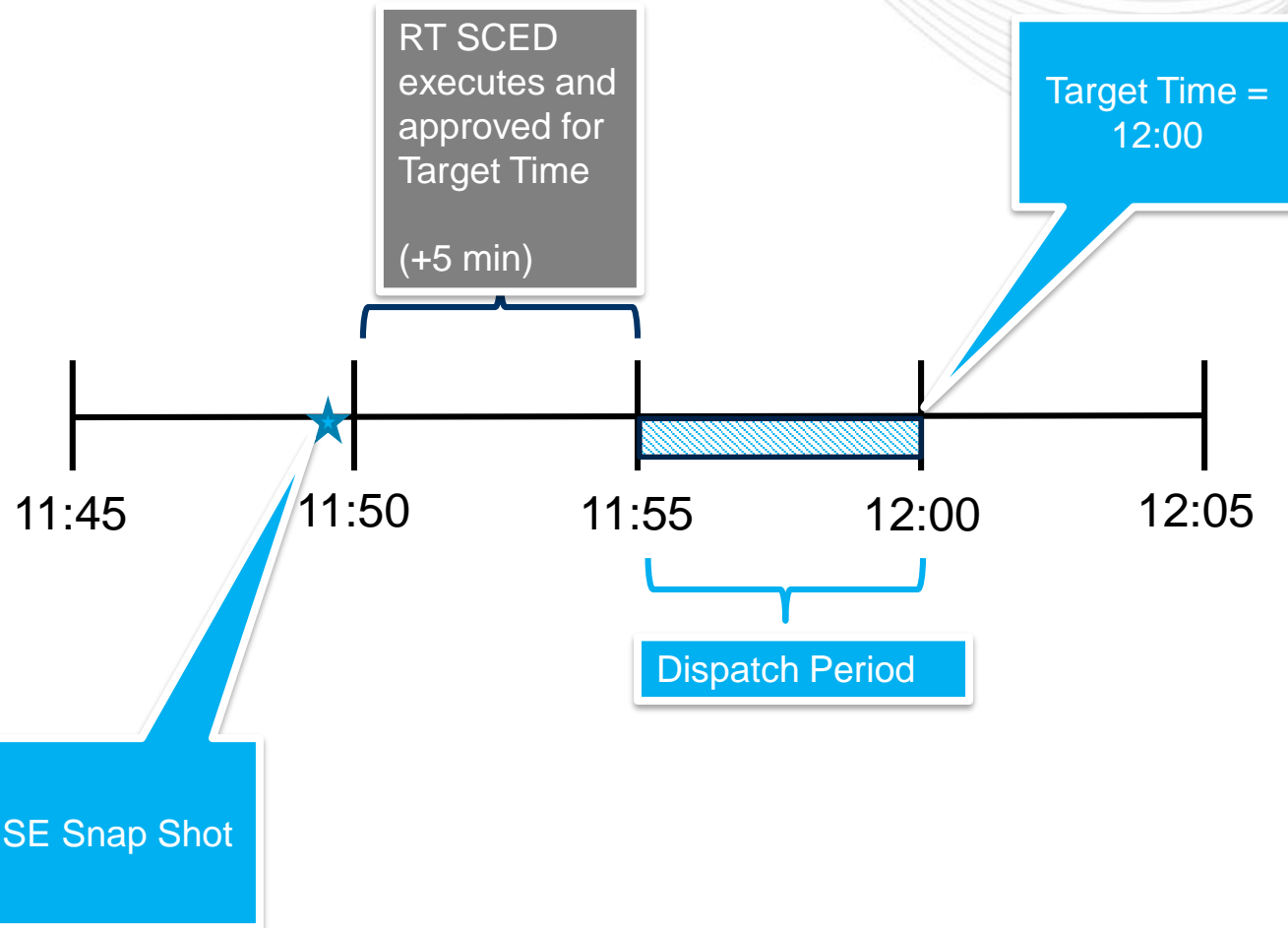
- Resource Offers, Parameters and Ancillary Service assignments corresponding to the interval ending at the target dispatch time are used as input to the RTSCED Case.

  – Example: Offers for 11:00 to 12:00 will be effective up to and including the 12:00 target time. Offers 12:00 to 13:00 will be applied to dispatch target time of 12:05

- Align LPC to use the reference RTSCED case for the same target time

  – Example: LPC calculates prices for interval from 11:55 to 12:00 using RT SCED solution with target time 12:00

- LPC will use the approved case from previous target time if no approved RTSCED case exists for the target time

Current SCED Implementation
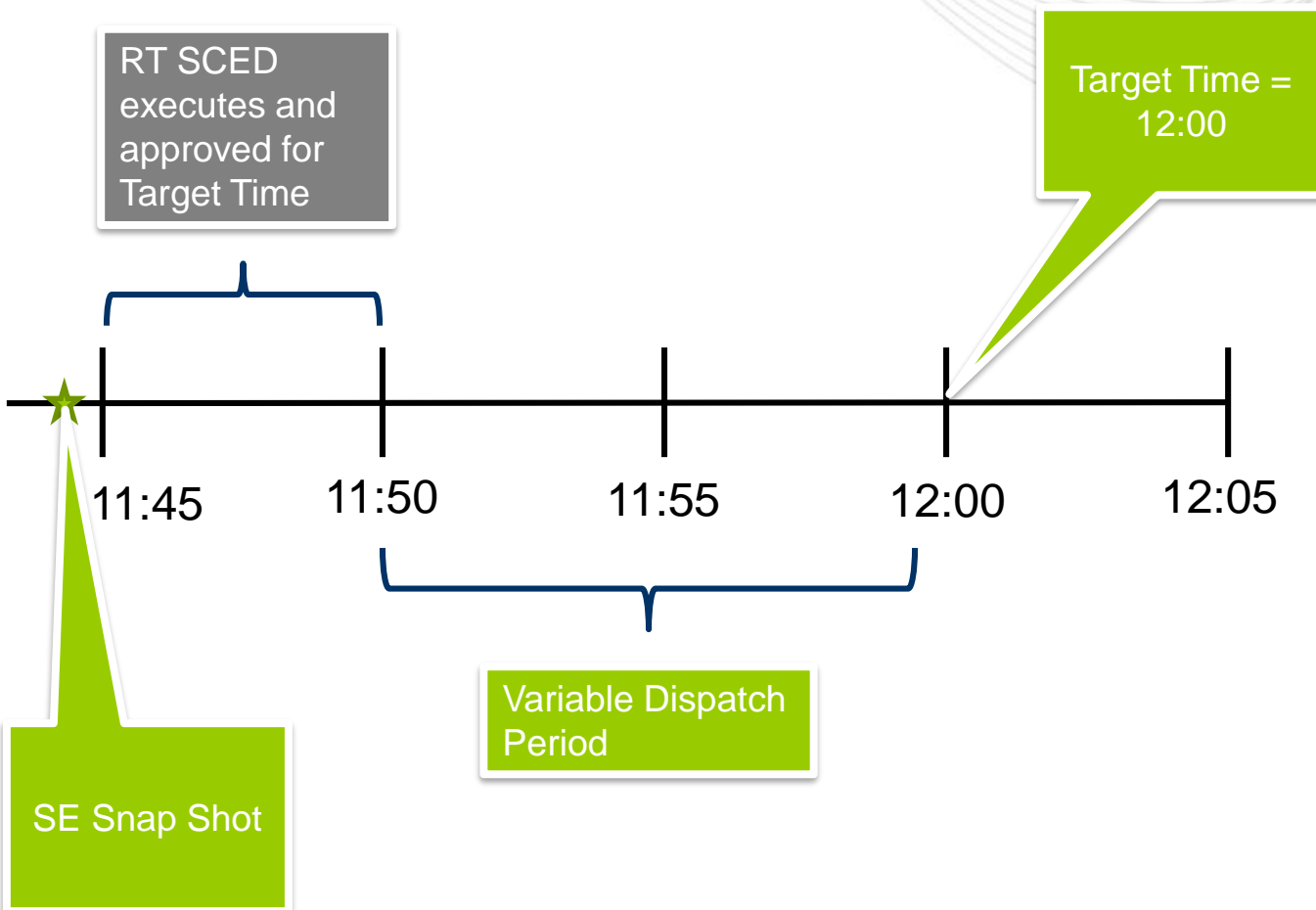
- Case(s) executed/approved between 11:45 and 11:50 with target time = 12:00.
- Dispatch period: point in time generators are ramping until new case is approved (Approx. 3.5-4 minutes)

Inputs

- Load Forecast for 12:00 hour
- Hourly Offer Curves for 12:00 hour
- Inflexible Sync Reserve and Regulation awards determined by ASO for 12:00 hour
- Latest available SE solution at execution time (~11:43)

Proposed SCED Implementation

RT SCED executes and approved for Target Time

(+5 min)

Target Time = 12:00

SE Snap Shot

Dispatch Period

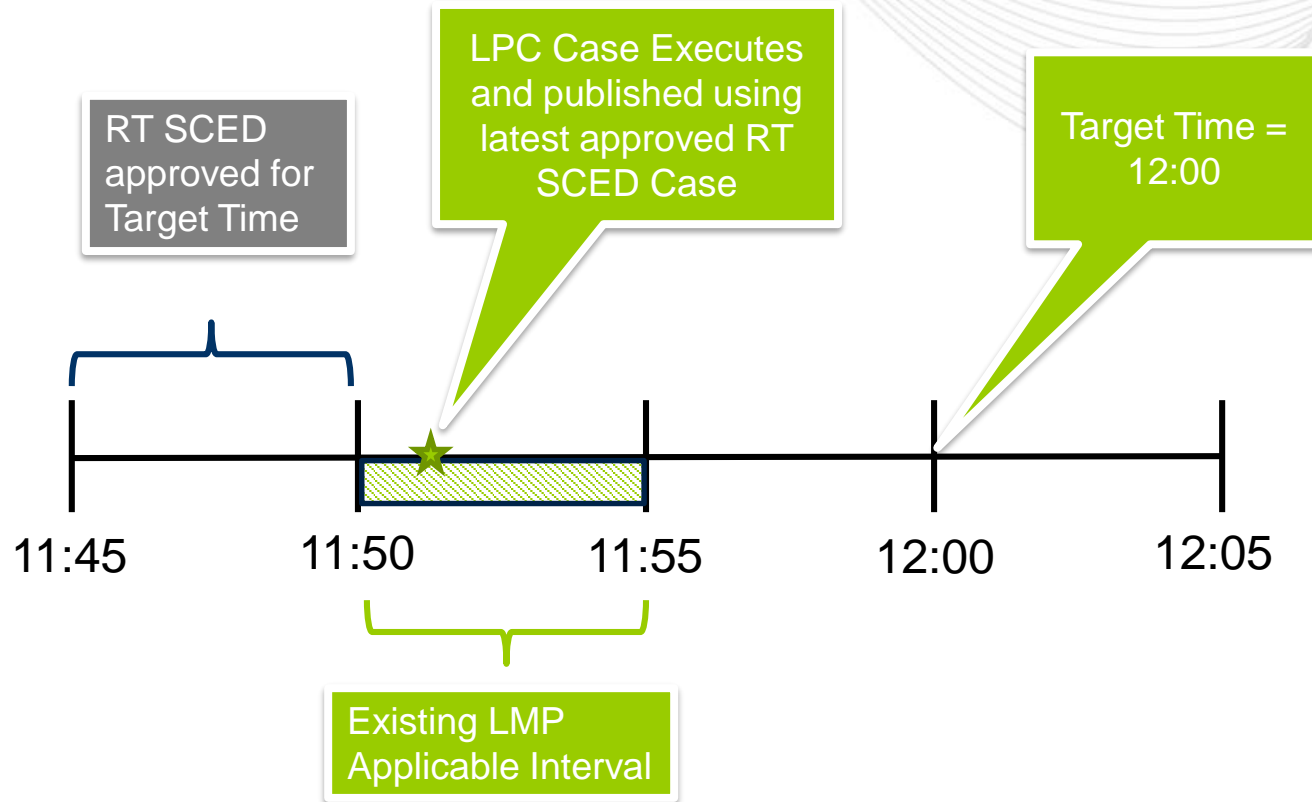11:45   11:50   11:55   12:00   12:05

Interval Ending

- Case(s) executed/approved between 11:50 and 11:55 with target time = 12:00.
- Dispatch period: ramp period to get generators ready to meet load at target time = 12:00

Inputs

- Load Forecast for 12:00 hour
- Hourly Offer Curves for 11:00 to 12:00
- Inflexible Sync Reserve and Regulation awards determined by ASO for 11:00 to 12:00
- Latest available SE solution at execution time (~11:49)
- The initial MW for the 11:55 case will be adjusted for feasibility using the previous dispatch MW, 11:50 approved case, as an input

RT SCED approved for Target Time

LPC Case Executes and published using latest approved RT SCED Case

Target Time = 12:00

11:45   11:50   11:55   12:00   12:05

Existing LMP Applicable Interval

- LPC case applied to current interval using the latest approved RT SCED case

- LPC case executed 90 seconds after the start of the interval
  - I.e. the LMP for 11:50 is executed at 11:51:30
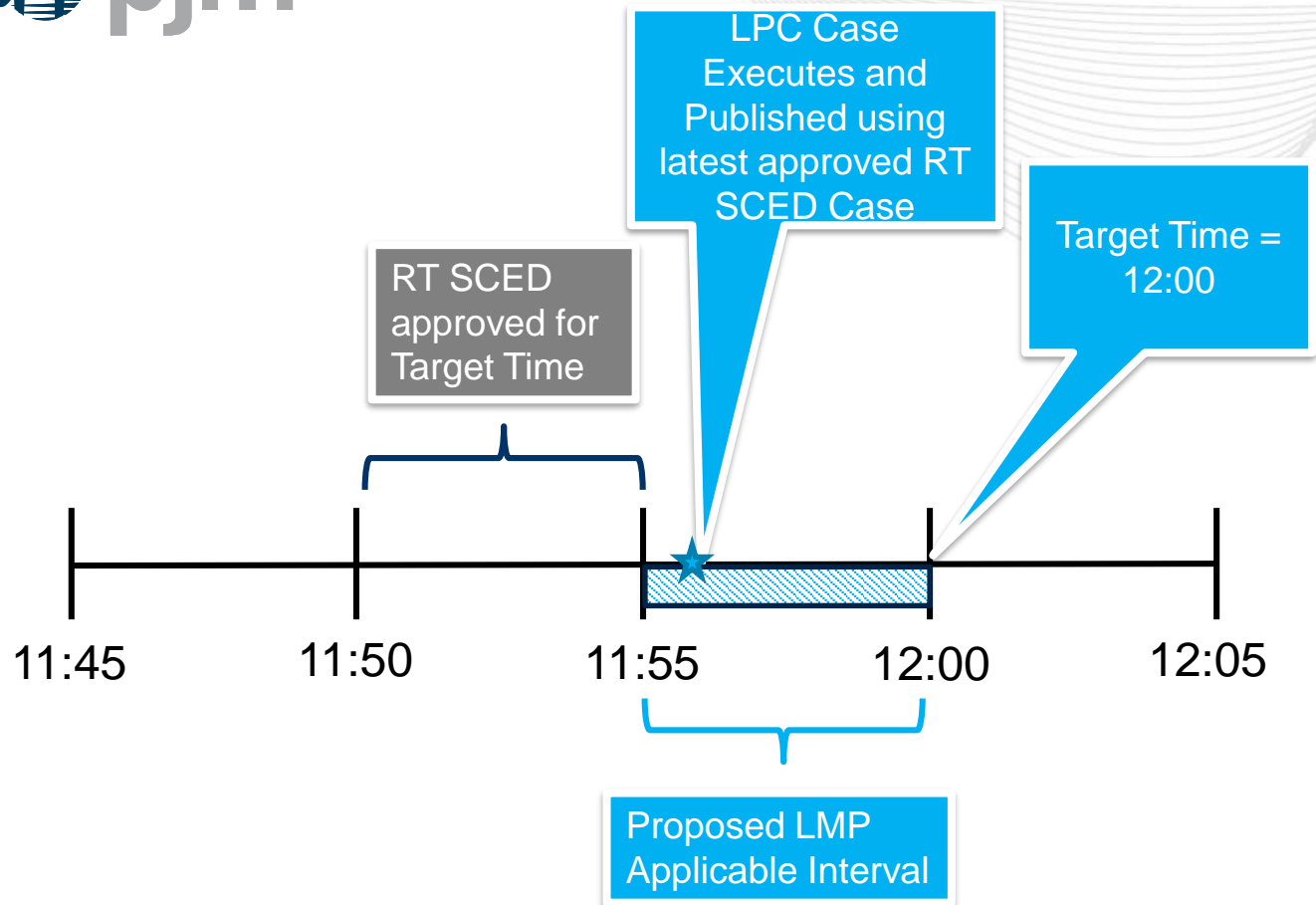
- LPC case applied to current interval using the latest approved RT SCED case
  - Latest approved RT SCED case is for target time = 12:00
- LPC case executed 90 seconds, or earlier if possible, after the start of the interval
  - I.e. the LMP for 11:55-12:00 interval is calculated at 11:56:30
- Settlements to apply LMP to MWh between 11:55 and 12:00