



California ISO  
Your Link to Power

# AS Protection Using Normal Card

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March 26, 2009

# General Principles

- Protects Spinning Reserve and Non-Spinning Awards
- Market Participants can Protect Ancillary Service Awards from DA and RTUC from possible No-Pay Using a SLIC Normal Card.
- New SLIC Normal Card functionality was added to give MP's the ability to keep resources in an operating range that allows the resource to have ramping capability to provide awarded Spin and NSPN in RTD.
- Normal Cards can be submitted up to 48 hours before the start time of a Normal Card. This gives the MP the ability to review DA Spin and NSPN awards and evaluate their need to submit Normal Cards for the next operating day.
- Normal Card is good for up to a 24 hr period based upon the start time of the card (Not the submitted time).

# Market Participant (MP) Determination

- Resource has the following operating limitations and awards from IFM Market:
  - P-max 400 MW
  - Ramp Rates:
    - 100 to 350 MW = 5 MW/minute
    - 350 to 400 MW = 1 MW/minute
    - Spin = 25 MW
    - NSPN = 25 MW
    - DA Energy schedule = 300 MW
- Potential issue: If resource is dispatched above 300 MW, due to ramping limitations it would not be able to provide all awarded A/S and could potentially be subject to a no-pay situation.

## Example

- Any time the resource was dispatched above 300 MW it would not be able to provide all awarded A/S due to the resources ramp rate above 350 MW (1 MW/min).
- Any dispatch point to the resource above 350 MW would be at a ramp rate of 1 MW/min.
- Once the resource had a DOT above 350 MW, the resource could only provide 10 MW of A/S.

# Solution

- MP decides they want to protect their A/S awards after reviewing DA (or RTUC) market results.
- MP submits a Normal card with a 0 MW curtailment (up to 48 hours ahead of the first hour the resource has a DA A/S award), scheduled to start the first hour the resource has a DA A/S award, utilizing the new GADS Code 10006.
  - The 350 MW availability will prevent resource from being dispatched above 300 MW unless the resource is being dispatched into it's A/S awards (Spin and/or NSPN).
  - Resource can provide all awarded Spin and NSPN at 5 MW/min times 10 minutes = 50 MW (25 MW Spin and 25 MW NSPN in our example).
- Note: A normal card may be submitted for the DA Market if a MP Self Schedules Spin or Non-Spin.

# Completion

- Market participant should end the SLIC Normal Card when they no longer have *A/S* awards on the resource.
- Normal Cards:
  - Can be ended any time by MP.
  - Can not be used unless all equipment affecting availability can be placed in service. If the resource has equipment that is not available (needs repair) a SLIC “Outage” must be entered with applicable de-rate.
  - Will be reviewed by CAISO Grid Operators.
    - CAISO Grid Operators can request a MP to end a Normal card when there is a reliability need.
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