**LOADS IN SCED 1.0**

Revision History

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| Date | Version | Description | Author |
| 05/28/2013 | 1.0 | First draft of the high-level concept document. Distributed to TAC, WMS, DSWG. | ERCOT Staff |
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* First phase of enablement of DR participation in the Real-Time Energy Market (Security Constrained Economic Dispatch)
  + Implement by summer 2014
* Eligibility to participate: LSE QSEs representing Load Resources capable of following 5-minute SCED base point instructions:
  + Existing or new single-site LRs
  + Aggregated Load Resources (ALRs) composed of multiple sites within an ERCOT Load Zone
* Will not support direct participation by third-party DR QSEs
* Will not support DR with temporal constraints or block energy offers
* Registration/qualification similar to current CLR, except without requirement to provide primary frequency response
  + QSE-ERCOT interface will need to be developed to maintain ALR populations
* LRs in SCED will submit Bids to buy (not Offers to sell)
  + Bids will reflect LR’s willingness to consume “up to” a specified Load Zone Settlement Point Price
  + May be a curve or a MW bid at single strike price
  + Bid will modify the SCED demand curve and have ability to set price
    - To correctly model demand, SCED Generation to be Dispatched (GTBD) will be adjusted to account for LR participation. This will ensure proper price formation and prevent oscillating dispatch instructions.
  + Bid to buy creates settlement outcomes equivalent to the “volumetric flow” LMP minus G methodology endorsed by TAC, but avoids the need for ERCOT to “send back” the DR value to the LSE
  + SCED will honor LR ramp rates as defined in Registration
* If the LR’s bid to buy is greater than the five-minute Load Zone LMP, the LR will be dispatched by SCED to consume at its telemetered Maximum Power Consumption, subject to its telemetered ramp rate limitations.
* If the LR’s bid to buy is lower than the five-minute Load Zone LMP, the LR will be dispatched by SCED to consume at its telemetered Low Power Consumption, subject to its telemetered ramp rate limitations.
* For any SCED intervals that the LR’s bid to buy is equal to the five-minute Load Zone LMP, SCED may dispatch the LR in either direction (up or down) in increments as small as 0.1 MW, within the bounds of the LR’s telemetered Maximum Power Consumption and Low Power Consumption, subject to its telemetered ramp rate limitations. (In this scenario, the LR will set the Load Zone LMP.)
* LR will benefit from avoided cost of consumption and from price certainty due to ERCOT dispatch
* No make-whole payments
* No load ratio share uplifts to market for DR value
* SCED will dispatch LRs for power balance and congestion management using the applicable Load Zone Shift Factor
* Load Zone Shift Factors will apply to any LR within the LZ
  + MW offers from single-site LRs will be limited to minimize errors due to the approximation of using load zone shift factors
* Eligible LRs may also participate in Non-spin Reserves
  + Cleared in DAM
  + Following dispatch in real time, energy Bids released to SCED similar to Offline Non-spin
* Measurement & Verification methodologies (2):
  + Meter Before/Meter After (similar to current LR-RRS)
  + Baseline (as developed in NPRR 532, pending)
* Telemetry requirements as defined in Protocols and NPRR 532
* NOIE 15-minute meter data submission to mimic process in place for ERS
* Compliance:
  + Base point deviations calculated for under- and over-performance; charges for over-performance added to LSE QSE charges in real-time
  + DREDP scores (sum of base point deviations) calculated monthly similar to GREDP
  + Maximum MW bids may be scaled (de-rated) based on DREDP scores and/or failure of telemetry to validate
* No change to existing LR participation in RRS
* No change to existing ERS