**NRG Comments to SAWG regarding Multi-Interval SCED:**

ERCOT recently reported initial results of its 2014 Price Responsive DR Survey and the number of retail customers on TOU rates more than doubled between 2013 and 2014[[1]](#footnote-1). As the retail market in ERCOT responds to the recent installation of over 6 million smart meters[[2]](#footnote-2), customer adoption of behavioral and event driven demand response products is expected to grow significantly as demonstrated by the recent results of ERCOT’s survey. Participation of price event responsive loads in the ERCOT-administered real-time market is essential to maintain efficient wholesale price formation. Further highlighting this need, the Loads in SCED subgroup has examined the demand response capability of the ERCOT market and determined that retail customers, particularly the residential class, possess the highest potential for growth. In order to support the growth of retail demand response and maximize participation of price setting loads, ERCOT stakeholders should fully explore market design enhancements which better accommodate aggregated load resources into ERCOT’s real-time market. Multi-Interval SCED represents such a market design enhancement.

NRG believes that efforts to improve the short-term load forecast are a prerequisite to the implementation of Multi-Interval SCED. The level of accuracy of the short-term load forecast will determine the most appropriate “look-ahead” period. However, the development of Protocol language can proceed in parallel with load forecast improvements once initial policy issues are resolved. The development of the NPRR and the corresponding Impact Analysis are crucial to fully inform ERCOT stakeholders on this key market design decision. If stakeholders are not satisfied with the results of the short-term load forecast improvements, implementation of Multi-Interval SCED can be delayed until the desired results are achieved.

NRG prefers the use of a single part offer/bid for a load resource rather than the use of a three-part offer/bid. Three-part offers are more specific to generation resource characteristics and are not compatible with certain load resource curtailment economics. Any need to apply verifiable costs to load resource bids/offers to mitigate buy side market power is premature at best and likely unnecessary.

NRG looks forward to discussion of initial policy issues and eventual review of an NPRR and IA for Multi-Interval SCED.

**NRG Comments to SAWG regarding Real-time Co-optimization:**

Similar to the implementation of Multi-Interval SCED, Real-time Co-optimization would provide incremental improvements to the efficiency of real-time market performance. To help stakeholders quantify the benefit of Real-time Co-optimization, NRG recommends that ERCOT staff analyze and report on the impacts of inefficient dispatch in the real-time market that co-optimization would be expected to resolve. Contributing factors of inefficient dispatch, and resulting inefficient pricing outcomes, in the real-time market include use of SASM, excessive use of Regulation, bias in the trends of Regulation use, impacts of HASL release, and other factors identified during the course of the requested analysis.

Real-time Co-optimization exceeds Multi-Interval SCED in complexity. NRG recommends that ERCOT develop a detailed list of policy issues that need to be addressed such as; the proper timeline for updating ancillary service offers and energy offer curves, disaggregation of ORDC into ancillary service products, interaction of the Power Balance Penalty Curve and ORDC with the System-Wide Offer Cap and Value of Lost Load, consideration of an ORDC in the DAM, the statistical distribution of online versus offline Non-spin, construction of an ORDC for Regulation Down, and treatment of Load Resources on High-Set Under Frequency Relay. Stakeholders can then work with ERCOT through a stakeholder forum (presumably the Supply Adequacy Working Group) to discuss the issues prior to development of NPRR language and the corresponding Impact Analysis for Real-Time Co-optimization. As stated above, the NPRR and IA are crucial inputs to comprehensive stakeholder evaluation and are justified given the impact of these market design reforms. Due to the varying complexity and implementation timelines, NRG requests that separate NPRRs and IAs be developed for Multi-Interval SCED and Real-Time Co-optimization.

NRG looks forward to discussion of initial policy issues and eventual review of an NPRR and IA for Real-time Co-optimization.

1. <http://www.ercot.com/content/meetings/dswg/keydocs/2014/1202-DSWG/2013-14%20retail%20DR%20products_v1.ppt> [↑](#footnote-ref-1)
2. See slide 39 at <http://www.ercot.com/content/committees/board/keydocs/2014/ERCOT_Monthly_Operational_Overview_201411.pdf> [↑](#footnote-ref-2)