Key Principle 3 – Reliability Unit Commitment

To facilitate this change to the Real-Time Market (RTM), Reliability Unit Commitment (RUC) will be modified to co-optimize energy and Ancillary Services (AS). RUC will look at the Resources planned to be available to determine whether additional Resource commitments are needed to meet the load forecast and minimum AS requirements, as well as resolve transmission congestion.

# Principle Concepts

# *Approved Principle Concepts*

None

#  *Principle Concepts for Voting*

1. The RUC optimization will use the Ancillary Service Demand Curves (ASDCs) that will be put into place for the RTM. RUC will utilize energy offer curves as submitted for all online and QSE committed resources shown to be online in their COP and will scale up (scaling factor TBD – this is to avoid economic commitment) startup costs and min energy costs for resources shown to be offline in COP and not capable of providing any offline AS. (Note: this will avoid ERCOT RUC-ing resources for ERCOT’s preferred AS capacity amount even though the market cleared much less capacity in DAM or prior RTC SCEDs – potentially distorting market prices for AS and energy. An obvious example is that ERCOT should not be RUC-ing to maintain ERCOT’s preferred level of Non-Spin.)
2. Modifications will be made to the existing set of data elements provided by Qualified Scheduling Entities (QSEs) in Resource Current Operating Plans (COPs) to accommodate the changes to the RUC optimization.
3. Within the COPs, QSEs will have a mechanism through which to indicate the ability or inability of a Resource to provide AS (e.g., a Resource Status).
4. The amount of AS that can be provided by a Resource will be validated against that Resource’s qualifications and capabilities.
5. Proxy AS Offers will be used in RUC in determining a co-optimized solution where AS Offers have not been submitted.
6. The RUC engine will consider OFFQS Resources that are qualified for ECRS as being able to provide ECRS.
7. The RUC engine will consider OFF Resources that are qualified for Non-Spin when offline as being able to provide Non-Spin.
8. The current process under which ERCOT Operators review recommendations from the RUC optimization and make commitment instruction decisions will remain in place.

Note: For non-consensus items, opposing key principle or principle concept language would be provided in this form to TAC for their review.

# *Future Decision Points and Issues for Developing Principle Concepts*

Functionality and Process Concepts

1. Details on changes to COP or alternative source of Resource information
2. Potential floors for AS Offers on Resources committed through the RUC process

Settlement Concepts

1. Capacity short calculation and allocation of RUC make-whole
2. Changes to RUC claw-back and make-whole

# Applicable Protocol Sections

*Placeholder*