June 29, 2012

**Comments of the Emerging Technologies Working Group (ETWG)**

**on the ERCOT Proposal to Conduct a**

**Fast Responding Regulation Service (FRRS) Pilot Project**

ERCOT presented the FRRS Pilot Project Proposal to the ETWG on June 27, 2012. ETWG discussed the proposal at some length. These comments attempt to capture the key issues and themes of that discussion.

**Purpose and Scope of FRRS Pilot Project**

* Significant differences were noted between the ERCOT proposal and similar pilot projects in PJM and NYISO, primarily that the northeastern pilots deployed their FRRS-like services more often and across a wider spectrum than is contemplated by ERCOT.
* It was noted that ERCOT consistently surpasses the NERC frequency control performance standard using the existing Regulation Services (RGS) (i.e., Reg-Up and Reg-Down) and that the ERCOT Interconnection already requires generators to provide, without compensation, the Primary Frequency Response (PFR) deemed necessary to maintain system frequency in accordance with NERC reliability standards.
* There was discussion and differing views expressed about the varying amounts of mechanical inertia on the system at different times of the year and the relationship between low system inertia and the ability of the various frequency response mechanisms already in place to arrest frequency decay.
* It was noted that the Controllable Load Resources (CLRs) and Energy Storage Resources (ESRs) expected to provide FRRS will not actually contribute much, if any, additional mechanical inertia to the system when providing FRRS. Others, however, stated the required speed and precision of FRRS response as proposed by ERCOT should provide the kind of “faster than Primary Frequency Response” functionality ERCOT argues is of growing value to its system operators.

**Potential Benefits of FRRS**

* ERCOT stated one potential benefit of FRRS could be better frequency control at a lower overall cost. Many stakeholders commented that such a statement is difficult to evaluate since the likely actual cost of FRRS as a fully-developed, stand-alone ancillary service will not be known, because the FRRS Resources will be price takers at the hourly RGS clearing price during the pilot. The expected total cost of frequency control with FRRS, even assuming some future reduction in RGS procurement, cannot be known until we see how FRRS Resources will actually offer into such a market. Whether such a market would be sufficiently competitive was also a stated concern.
* ERCOT stated another potential benefit of FRRS could be diminishing use of traditional RGS and future reductions of RGS capacity procurements. It was noted that PJM has decreased RGS procurement since transitioning its FRRS-like pilot into a fully functional Fast Regulation Service but that PJM’s “fast responders first” methodology might contribute more to that outcome than ERCOT’s proposed “frequency arrestor” proposal, which is more limited in nature.
* ETWG discussed at length whether the potential benefits of FRRS can be discerned or realized until certain underlying issues are addressed, such as the excessive deployment of Up RGS as discussed below.

**Relationship of FRRS to Existing Regulation Service Issues**

* ETWG discussed the persistent bias toward Up RGS deployments by ERCOT with the net effect that RGS has long been used for broader purpose than its primary function as Secondary Frequency Response. Many participants commented that to the extent RGS procurement volume is driven by this broader load-serving function, the prospects for diminishing RGS procurement in the future due to the use of FRRS may be murkier than supposed by the ERCOT proposal. Some expressed that this underlying issue should be addressed prior to dedicating resources to testing a new service like FRRS because it may address some of ERCOT’s issues and may have broader market benefit in terms of proper price formation and improved price clarity and transparency.

**Relationship of FRRS to Other Ancillary Services-Related Issues**

* It was noted that the ERCOT proposal does not address whether any temporary exceptions to the Protocols will be requested as allowed in the Public Utility Commission of Texas (PUCT) Pilot Rule. It was suggested ERCOT examine the relationship between the expected performance requirements of FRRS Resources and the application of base point deviation charges, since each generator’s movement relative to the direction of system frequency is considered in that process.

**FRRS Deployment Logic and Modifications of Pilot Parameters**

* ERCOT clarified the proposed FRRS deployment logic may be modified during the pilot based on early observations. For example, ERCOT initially plans for FRRS Resources to deploy their full awarded amount when triggered but for each FRRS deployment to be recalled in 3 steps. ERCOT suggested pilot experience may suggest that FRRS should be deployed in steps, rather than all at once, particularly during low system load conditions. ERCOT’s proposal contemplates the modification of such “parameters” if necessary during the course of the pilot. ETWG suggested ERCOT consider the operational and functional challenges associated with modifying such key pilot parameters during the project, particularly those which might require extensive reprogramming of controls systems logic by FRRS Resources and QSEs and similar issues where tight coordination between ERCOT and FRRS Resources is critical.

**Pilot Qualification and Participation**

* ETWG discussed the process of FRRS Pilot qualification by Resources. ERCOT suggested, and some ETWG participants requested, that FRRS Resources should be able to qualify for pilot participation after the start date to accommodate new Resources which may not be online by November 1, 2012. ERCOT suggested pilot participation could be rather fluid, with FRRS-qualified Resources deciding week to week whether to offer FRRS and, if so, in what amount and during what hours. ETWG suggested ERCOT clarify this point in the FRRS Pilot Governing Document.