



**Federal Energy Regulatory Commission**  
**February 18, 2016**  
**Open Commission Meeting**  
**Staff Presentation**  
**Items E-2**

"Good morning Mr. Chairman and Commissioners,

"Item E-2 is a draft Notice of Inquiry in which the Commission seeks comment on the need for reforms to its rules and regulations regarding the provision and compensation of primary frequency response. In recent years, the nation's electric supply portfolio has transformed to a point where fewer resources may now be providing primary frequency response than when the Commission considered this issue in other relevant proceedings. In light of the changing resource mix and other factors, it is reasonable to expect this trend to continue. Considering the significance of primary frequency response to the reliable operation of the Bulk-Power System, the draft Notice of Inquiry seeks input on whether and what action is needed to address the provision and compensation of primary frequency response.

"The nation's generation resource mix is undergoing a transformation that includes the retirement of baseload, synchronous units with large rotational inertia. Moreover, the changing resource mix also includes the integration of more distributed generation, demand response, natural gas resources, and the rapid expansion of variable energy resources such as wind and solar. Several factors have driven these developments, such as existing and proposed federal and state environmental regulations, renewable portfolio standards, tax incentives and low natural gas prices.

"In 2014, the North American Electric Reliability Corporation initiated the Essential Reliability Services Task Force to analyze and better understand the impacts of the changing resource mix and develop technical assessments of essential reliability services. The Task Force primarily focused on three essential reliability services: frequency support, ramping capability, and voltage support, and considered the seven ancillary services adopted by the Commission in Order Nos. 888 and 890 as a subset of the essential reliability services that may need to be augmented by additional services as the Bulk-Power System characteristics change. The Task Force concluded that it is prudent and necessary to ensure that primary frequency response capabilities are present in the future generation resource mix, and recommends that all new generators support the capability to manage system frequency.

"Contributing to the concerns associated with the nature and operational characteristics of the evolving resource mix is the uncertainty of whether a resource configured to provide primary frequency response is willing and able to offer such a service when called upon to do so. While almost all existing synchronous resources and some non-synchronous resources have governors or equivalent control equipment capable of providing primary frequency response, generator owners and operators can independently decide whether generating units provide primary frequency response.

In the draft Notice of Inquiry, the Commission seeks comment on whether the pro forma Large Generator Interconnection Agreement and Small Generator Interconnection Agreement should be amended to require all new generation resources to have frequency response capabilities as a precondition of interconnection. The Commission also seeks comment on the performance of existing resources and whether primary frequency response requirements for these resources are warranted. Finally, the Commission seeks comment on the requirement to provide and compensate for primary frequency response.

"Thank you, this concludes our presentation."