

Load Frequency Control and Reserves Code

1st Workshop

12 July 2012

Highlights

- **LFC & R NC first draft presentation**
- **Questions**



Chapter 1 : Frequency Quality

- *Defines Frequency Quality criteria and targets in normal operations.*
- *All requirements related to Frequency quality*

Chapter 2 : Load Frequency control structure

- *Requirements to define, to implement and to operate a Load-Frequency-Control structure for a Synchronous Area.*
- *Aiming at defining a Process Activation Structure and a Process Responsibility Structure.*



Chapter 3 : Frequency Containment Reserves

- *Methods and requirements for calculation of required amount of FCR in a synchronous area, and distribution key among TSOs*
- *Requirements for FCR providing units*

Chapter 4 : Frequency Restoration Reserves

- *Methods and requirements for calculation of required amount of FRR for each TSO of a synchronous area.*
- *Requirements for FRR providing units.*



Chapter 5 : Replacement Reserves

- *Methods and requirements for calculation of required amount of RR for TSOs needing it.*
- *Requirements for RR providing units*

Chapter 6 : Exchange and sharing of Reserves

- *Requirements and constraints for exchanging and/or sharing Reserves between TSOs of a synchronous area.*
- *Requirement for providing units in case of exchange or sharing of reserves*



Chapter 7 : Time Control

- *Requirement to define and implement the common rules of electrical time control*

Definitions

- *Chapter aiming at defining all critical issues in the code*
- *To be further elaborated*



Questions

Questions for the discussion



Questions for participants :

1. What level of harmonization do you expect for all the synchronous areas affected by the Network Code with regard to frequency quality ?
2. What is your opinion on XB exchange of reserves between Synchronous Areas and how should it be organized ?



Questions for TSOs :

1. How do you ensure harmonisation between NC LFC&R and NC Balancing? Are the Network Codes treated equally (i.e. do they have equal rights)? If so, what happens in case of contradiction?
2. What is the current and future role of the UCTE Operation Handbook?
3. Does expression X mean something else in code Y as it does in code Z?
4. How is (mandatory) demand side response active power control defined in the DCC related to FCR providers defined for LFC&R? Do LFC processes stipulate a link to significant devices?