

Chapter 5 Settlement

Network Code Electricity Balancing 3rd Public Workshop

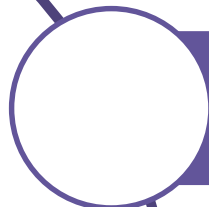
23 October 2013

Frank Nobel et al.

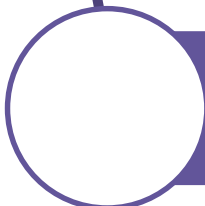
Disclaimer: Presentation based on the draft version
1.30 of NC EB



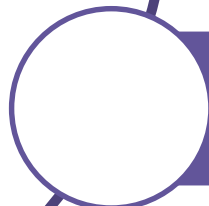
- **325 comments were received on the chapter on Settlement. The main concerns are:**



Marginal Pricing. Some stakeholders want to enforce a single price system while others suggest a dual price system with reference to a day ahead price



The use of the concept Relevant Area. Many stakeholders suggest to use Bidding Zones in line with NC CACM



Settlement Responsibility. The possibility of delegation of Imbalance Settlement to another entity should be enlarged.



The components of Imbalance

- What the BRP was committed to (buy, sell) or, where appropriate, intended to do (inject, withdraw):
Position
- What the BRP actually physically realized:
Allocated Volume
- What was attributed to the BRP as Balancing Energy:
Imbalance Adjustment



Potential States

		Imbalance BRP		
		short (-)	0	long (+)
Balancing Energy requested by TSO	no -, no +			
	-, no +			
	+, no -			
	both +, -			

Existing Imbalance Price methods, examples based on marginal prices:

Single Pricing

		Imbalance BRP		
		short (-)	0	long (+)
Balancing Energy requested by TSO	no -, no +	reference		reference
	-, no +	marginal -		marginal -
	+, no -	marginal +		marginal +
	both +, -	marginal -	one of these	marginal -
		marginal +		marginal +
		reference		reference

Dual Pricing

		Imbalance BRP		
		short (-)	0	long (+)
Balancing Energy requested by TSO	no -, no +	reference		reference
	-, no +	reference		marginal -
	+, no -	marginal +		reference
	both +, -	marginal +	one of these	marginal -
		marginal +		reference
		reference		marginal -

Incentives due to Imbalance price:

Single Pricing		Imbalance known to BRP		
		short (-)	0	long (+)
Balancing Energy requested by TSO	no -, no +	reference		reference
	-, no +	marginal -		marginal -
	+, no -	marginal +		marginal +
	both +, -	marginal -	one of these	marginal -
		marginal +		marginal +
		reference		reference

Dual Pricing		Imbalance known to BRP		
		short (-)	0	long (+)
Balancing Energy requested by TSO	no -, no +	reference		reference
	-, no +	reference		marginal -
	+, no -	marginal +		reference
	both +, -	marginal +	one of these	marginal -
		marginal +		reference
		reference		marginal -

Single Pricing		Imbalance unknown to BRP		
		short (-)	0	long (+)
Balancing Energy requested by TSO	no -, no +	reference		reference
	-, no +	marginal -		marginal -
	+, no -	marginal +		marginal +
	both +, -	marginal -	one of these	marginal -
		marginal +		marginal +
		reference		reference

Dual Pricing		Imbalance unknown to BRP		
		short (-)	0	long (+)
Balancing Energy requested by TSO	no -, no +	reference		reference
	-, no +	reference		marginal -
	+, no -	marginal +		reference
	both +, -	marginal +	one of these	marginal -
		marginal +		reference
		reference		marginal -

Legend

Up

Down

Back

Stay/Unclear



State of affairs:

Present Draft

		Imbalance BRP		
		short (-) BRP pays not less	0	long (+) BRP receives not more
Balancing Energy requested by TSO	no -, no +	avoided		avoided
	-, no +	undefined		average -
	+, no -	average +		undefined
	both +, -	average +	one of these	undefined
		undefined		average -
		average +		average -



Each TSO shall make a proposal for a single reference price for Imbalance in case no Balancing Energy has been deployed whatsoever, to cover no +, no –

***Not more/less than average* allows for:
marginal price; in case Balancing Energy is priced
marginal, then Average is Marginal
additional components**



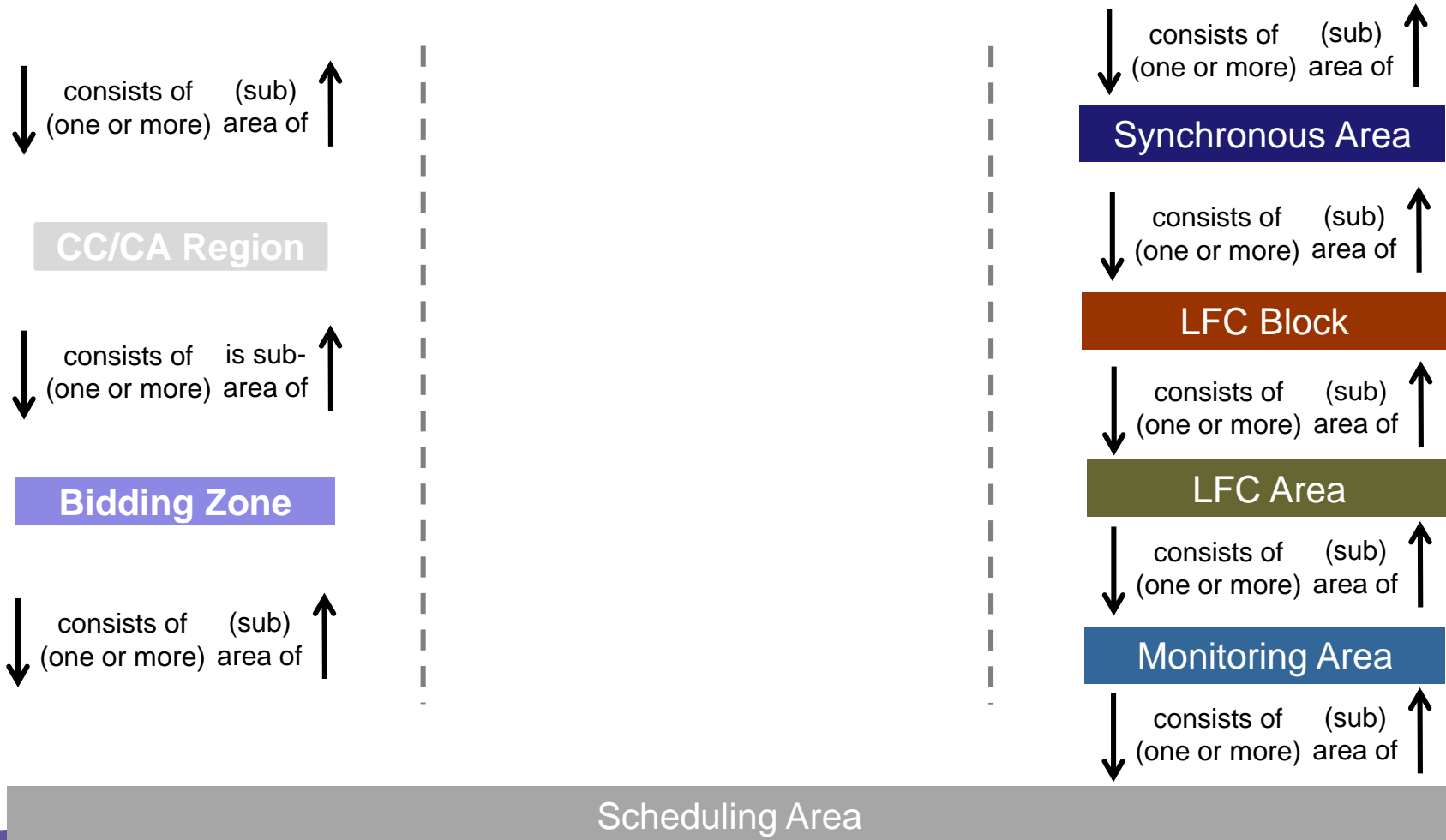
Each TSO shall make a proposal for a single reference price for Imbalance in case no Balancing Energy has been deployed whatsoever, to cover no +, no -.

In the Intermediate Model the TSO's will fill in the other presently open prices.

In the Target Model all TSO's will use the same proposal for reference price & the same proposal for the presently open prices

Article 56, 57 IMBALANCE AREA, IMBALANCE PRICE AREA

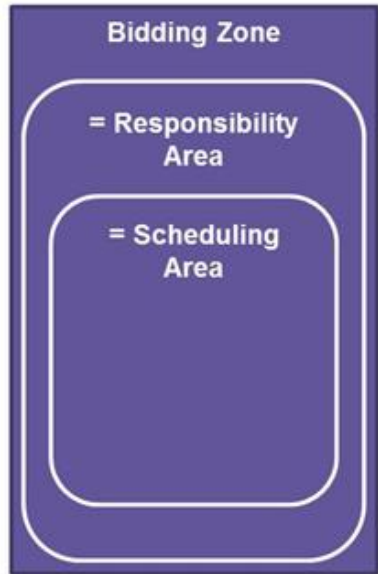
Internal Energy Market



Relations between Scheduling Area, Responsibility Area and Bidding Zone (OPS SD)

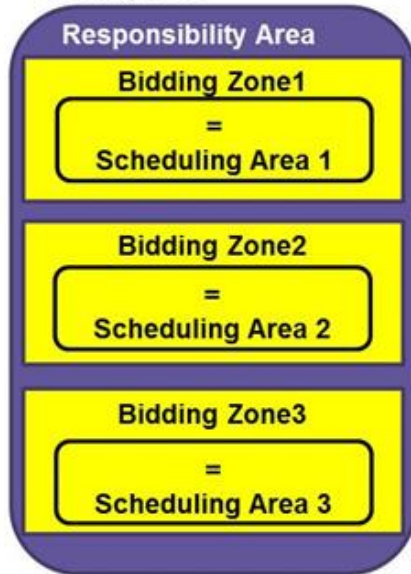


1. Responsibility Area
= Bidding Zone
= Scheduling Area



Most Common

2. Responsibility Area
contains more than
one Bidding Zone then
Scheduling Area =
Bidding Zone



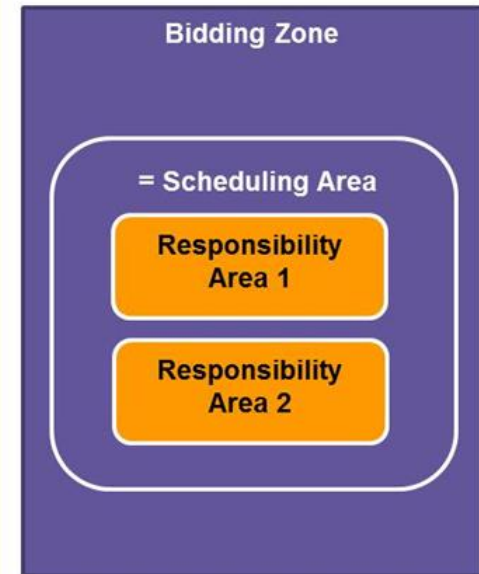
Nordic, IT

3. Bidding Zone
contains more than one
Responsibility Area then
Scheduling Area =
Responsibility Area



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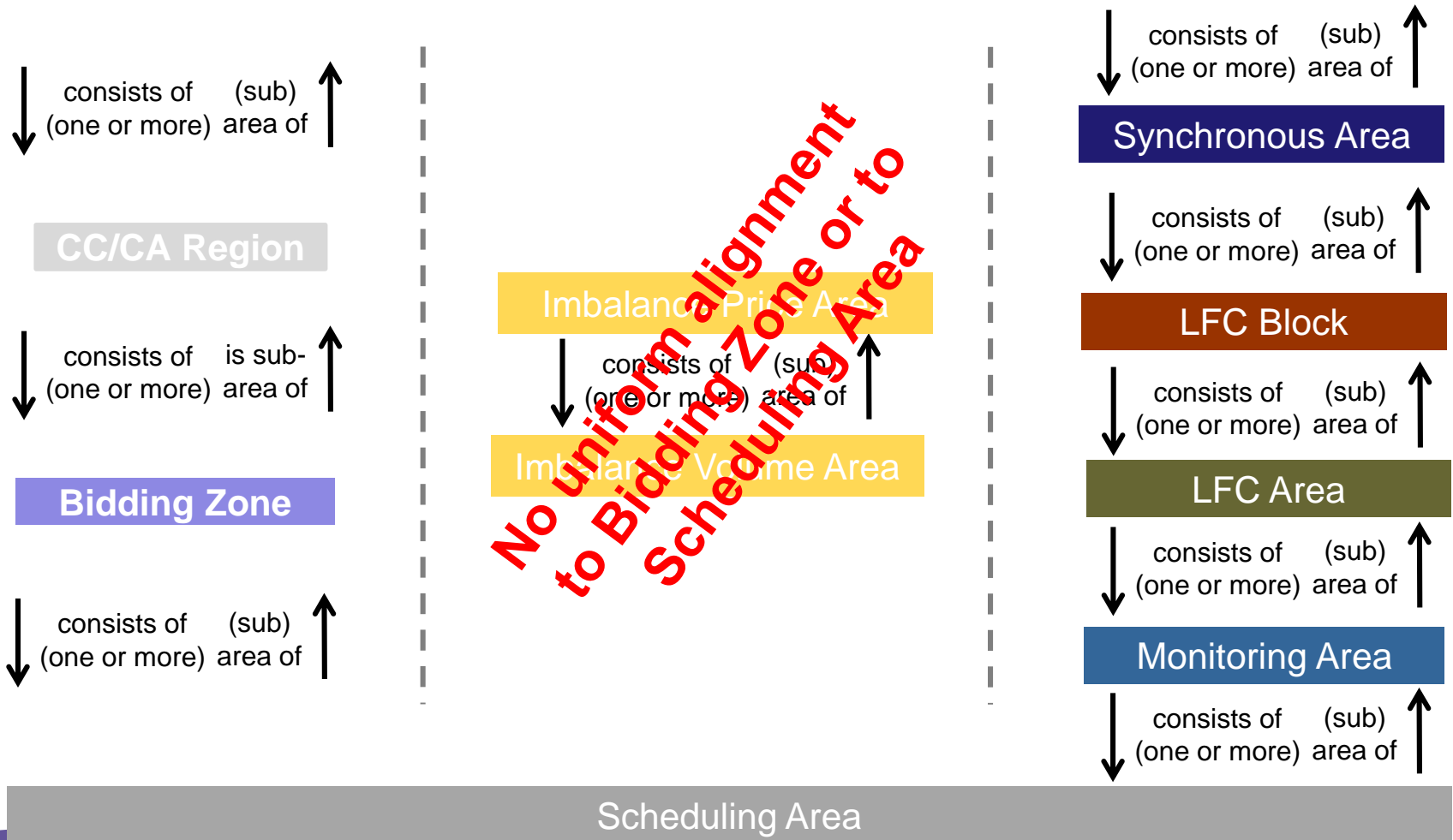
4. Two Responsibility Areas
establish one Scheduling Area
(Bidding Zone = Scheduling Area)



IRE + NIR

Article 56, 57 IMBALANCE AREA, IMBALANCE PRICE AREA

Internal Energy Market





Most Common:

Responsibility Area = Bidding Zone = Scheduling Area = Imbalance Price Area = Imbalance Area

Nordic:

Bidding Zone = Scheduling Area = Imbalance Price Area = Imbalance Area

Germany/Austria: LFC Block = one or more

Responsibility Area = Imbalance Price Area;

Responsibility Area = Scheduling Area = Imbalance Area



- 1. Transmission System Operators may delegate all or part of any functions assigned to them under this Network Code to one or more third parties. The delegating Transmission System Operator shall remain responsible for ensuring compliance with the obligations under this Network Code, including ensuring access for information necessary for monitoring by the National Regulatory Authority. Subject to regulatory approval Transmission System Operators may also delegate the responsibility for fulfilling the task of Imbalance Settlement between the Connection Transmission System Operator and the Balance Responsible Party.**