



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

Gas / Electricity Markets Interactions Workshop

12th December 2011



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EU Developments Overview

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SOS Recent Regulatory Developments

3rd Package

Prospective

Infrastructure development related to the single market

EU 10 YNDP

- Scenarios and simulations
- Assessment of existing infrastructures & projects
- Monitoring report

SoS Regulation

Risk mitigation

Infrastructure standards for crisis management

Investment notification

Monitoring and reporting

Security of Gas Supply Regulation

- EU Regulation No. 994/2010 entered into force Dec 2010
- Safeguard SOS of gas and contribute to proper functioning of the internal gas market in the case of supply disruptions
- Member States obliged to provide, as a means of establishing SOS:
 - Risk Assessment by 3rd December 2011 (Article 9)
 - Preventive Action Plan by December 2012 (Article 5)
 - Emergency Plan by December 2012 (Article 10)
- Plans to be updated every 2 years
- Regional cooperation if deemed to enhance SOS
- Ireland and the UK identified as a region.
- CER designated as Competent Authority December 2010

Risk Assessment

- To be completed by the 3rd December 2011
 - Using
 - both Infrastructure and Supply Standard
 - N-1 Calculations
 - Technical Risk Analysis Report informs CER's Risk Assessment
 - Various high demand and supply disruption scenarios

– N-1 Calculations

“Ability of the technical capacity of gas infrastructure to satisfy total gas demand in the event of failure of the single largest gas infrastructure during a day of exceptionally high gas demand occurring once in 20 years.”

– Formula per Regulation Annex I

– Can also be met by:

- Demand Side Measures (can switching of gas-fired power stations be included?)
- Regional Approach

N-1 Calculation

Article 6 Infrastructure Standard - N-1 Calculations

N-1 Formula:

$$N - 1[\%] = \frac{EPm + Pm + Sm + LNGm - Im}{D_{max} - D_{eff}} \times 100$$

Projected Supply and Demand for Calculated Area for 2013/2014

			Facility	mscm/d
EPm	E	Technical Capacity of Entry Points	Moffat	23.4
Pm	P	Maximal Technical Production Capability	Inch	0.5
			Corrib	10.0
Sm	S	Maximal Technical Storage Deliverability		2.6
LNGm	L	Maximal Technical LNG Facility Capacity		
Im	I	Technical Capacity of Largest Gas Infrastructure		23.4
Dmax		Total Daily Demand of the calculated area during a day of exceptionally high gas demand (1 in 20)		21.2
Deff		The portion of Dmax that can be addressed via demand side measures		11.9

Calculation based on Dmax of 21.2 mscm/d

$$N-1\% = \frac{23.4 + 10.5 + 2.6 - 23.4}{21.2} = 62\%$$

Calculation based on Dmax of 21.2 mscm/d less Deff of 11.9 mscm/d

$$N-1\% = \frac{23.4 + 10.5 + 2.6 - 23.4}{9.3} = 141\%$$

Regional Approach

- Regular meetings on implementation of Regulation:
 - UK, Ireland, NI Regulatory Authorities, Governments and TSO's
 - Assumption regional approach will be adopted
- CER developed paper outlining framework for regional approach.
- Joint Risk Assessments, Preventative Action Plans and Emergency Plans will be required

Deadlines

Date	Action
3 rd Dec. 2011	<ul style="list-style-type: none"> • Designation of Competent Authority (by DCENR) • Risk Assessment • Joint Risk Assessment at Regional Level (if appropriate) • Protected Customer (Notify the EU Commission)
3 rd March 2012	<ul style="list-style-type: none"> • Proposal for Bi-directional Capacity or • Request for Exemption (to be submitted by Gaslink to CER)
3 rd June 2012	<ul style="list-style-type: none"> • Draft Preventive Action Plan • Draft Emergency Plan • Identify undertakings and responsibilities (for consultation at Regional level – i.e. with CAs in GB and NI).
3 rd December 2012	<ul style="list-style-type: none"> • Preventive Action Plan (PAP) and • Emergency Plan (EP) and • Joint PAP and EP (if applicable)
3 rd Dec 2013	Physical Reverse Flows at Interconnectors (if not exempted)
3 rd Dec 2014	Compliance with Article 6 Infrastructure Standard

Next Steps

- Risk Assessment to EU Commission Dec 2011
- Preventive Action Plan – 3rd December 2012
 - Establish the measures needed to remove or mitigate the risks identified in the RA
 - Consultation end Q1 2012
 - Will include supply standard
- Emergency Plan – 3rd December 2012
 - plus NGUK/Gaslink protocol on Moffat emergency

Physical Reverse Flow

- Regulation 994/2009 provides that, by the **3rd December 2013**, physical gas flows in both directions at cross border interconnections should be enabled.

Market Test Required by Regulation

- Consultation Paper: Gaslink & NGUK
 - Background analysis (supply, demand, max/min capacities, costs etc.)
 - Capacity Products (Products available, limitations, code modifications)
 - Invitation to declare interest

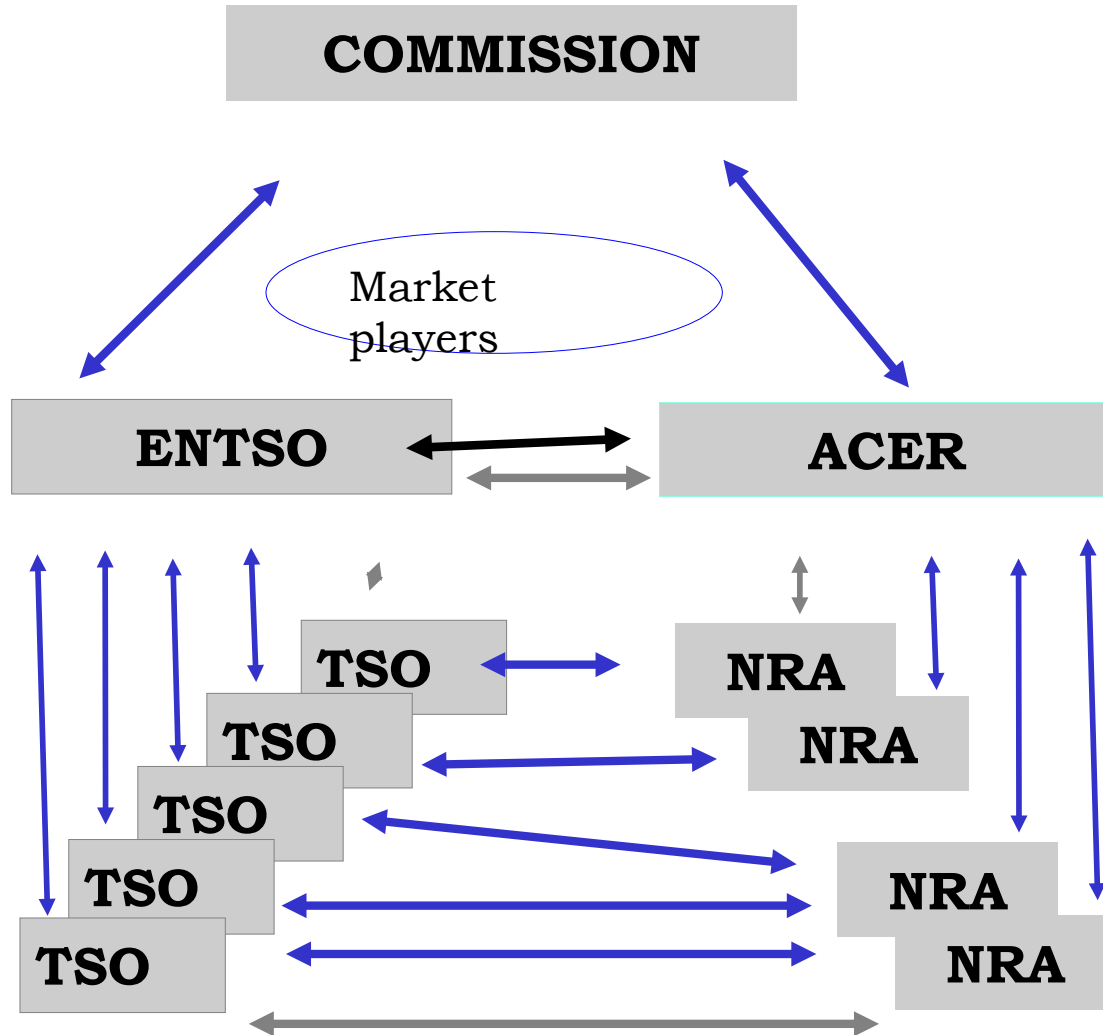
If no commercial interest TSOs to consider if SOS Benefit

- TSO's submit to CER by the **3rd March 2012**, either a
 - Request for Exemption from, *or*,
 - Proposal for Physical Reverse Flow.
- CER inform European Commission on decision.

3rd Package

- **Comprises:**
 - Electricity (2009/73/EC) and Gas (2009/73/EC) Directives;
 - Electricity (EC/714/2009) and (EC/715/2009) Gas Regulations and
 - Regulation establishing ACER (reg. EC 713/2009)
- **Entered into force 3 September 2009**
- **Applies from 3 March 2011**
 - Agency operational
 - ENTSOs official bodies
- **Ownership unbundling by 3 March 2012**

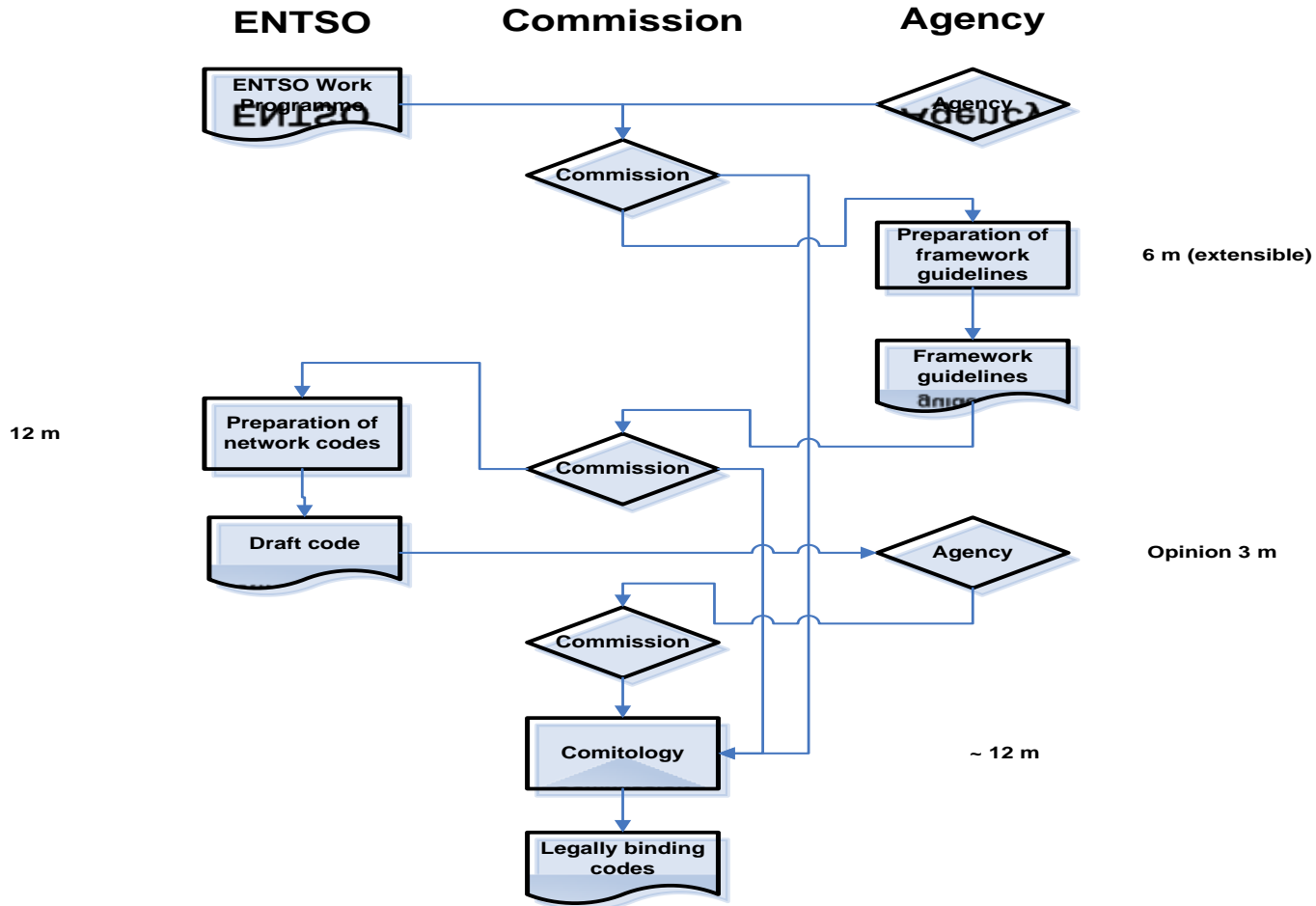
Cooperation Architecture



Technical and market codes for Cross Border Exchanges

- *Security and reliability (including Reserve Capacity **E**)*
- *Network connection and third party access rules*
- *Data exchange and settlement rules*
- *Interoperability rules*
- *Operational procedures in cases of emergencies*
- *Capacity allocation and congestion management rules*
- *Rules for trading*
- *Transparency rules*
- *Balancing rules ..(Noms; imbalance charges; **G**) (Reserve Power; **E**)*
- *Rules regarding harmonised transportation tariff structures (LMP and ITSO **E**)*
- *Energy efficiency regarding networks*

Code Development Process



Target Model

- **Business Models for Gas and Electricity very Different**
 - Electricity TSO schedules generation to control instantaneous local Supply and Demand
 - Gas TSO takes instructions from Shippers who deliver gas from Production (or Storage) to Final Destination
- **Electricity Target Model focus on Market Convergence**
- **Regional approach more appropriate to Electricity**
- **Gas Target Model at early stage of Development and premised on Hub to Hub trading and transport to and from hubs**
- **Framework Guidelines central to Gas Market**

CER Approach to FG

- **ACER**
 - Inputting to Task Forces through membership of Drafting Committees, telecons and also One to One
 - Attending Gas and Electricity Working Groups and CEER General Assembly
 - Participating in Regional Initiatives
- **Domestic**
 - Working with DCENR and Gaslink – monthly meetings
 - Eirgrid
- **Cross Border**
 - Working with OFGEM on compliance & will extend to Implementation of Codes
 - Working with NIAUR through SEM and application in CAG