THE CHANGING LANDSCAPE OF NATURAL GAS:

COOPERATION AND DEVELOPMENT

UNECE Gas Center
7th Task Force on Supply, Infrastructure and Markets

By Boyko Nitzov, TSO Cooperation Officer, ACER
11 September 2012
Ljubljana

Disclaimer

- The views expressed in this presentation are the views of the speaker and do not necessarily reflect the views of the Agency for the Cooperation of Energy Regulators, or of any of its Boards.

- The Agency for the Cooperation of Energy Regulators does not guarantee the accuracy of any data and information included in this presentation and accepts no responsibility for any consequence of their use.

Outline

- Europe’s positioning in the global gas markets
  - Supply
  - Infrastructure
  - Markets
- The Agency: Specific mandate and tasks in gas
- The Agency’s actions in gas infrastructure
  - The BoR
  - The working groups
  - The EIP virtual groups
  - The Agency’s next actions
- The Agency’s actions regarding markets

ACER
Agency for the Cooperation of Energy Regulators

Europe in global gas supply

- The traditional suppliers
  - LT contracts
  - Pricing methodologies
  - Access to markets and access to resources
- LNG
  - New suppliers (Africa, Asia, possibly the U.S.)
  - Discoveries and technology advances widen the options
- Domestic resources
  - Mediterranean
  - Black Sea
  - Shale
- Shortage is not an issue
- Issues are market, resource and infrastructure development-related

Europe in global gas supply

- High dependence on imports
- High prices
- RES and the role of taxation
- Domestic resource policies
- Views about risks and priorities
- Transcontinental gas supply infrastructure
- Dialogues and cooperation

A clear target

"The internal market should be completed by 2014 so as to allow gas and electricity to flow freely."

European Council - 4 February 2011 - Conclusions on Energy (paragraph 4)

Shared Vision: "Target Model" → **Common Rules (FG & NC)** → **Implementation**

- Completion of the Internal Energy Market requires implementation of a Target Model and Common Rules.

Components of the Gas Target Model

OPTIMAL NETWORK DEVELOPMENT

... EU-wide network development planning

EFFICIENT USE OF EXISTING CAPACITY

... as contractual congestion appears to be a major problem

Internal Gas Market
Liquid Hub Trading

EFFECTIVE NETWORK AND MARKET ACCESS

... to promote competition and cross-border exchanges

TRANSPARENCY AND MARKET MONITORING

...to ensure that market is functioning efficiently and effectively

Rules governing these areas are key to delivering the Internal Gas Market

ACER – an Expanding Role

Third Energy Package
Directives 2009/72/EC and 2009/73/EC and Regulations (EC) Nos 713/2009, 714/2009 and 715/2009

Regulation (EU) No 1227/2011 on Wholesale Energy Market Integrity and Transparency (REMIT)

Proposed Regulation on guidelines for trans-European energy infrastructure (tabled by the European Commission on 19 October 2011; expected to enter into force in early 2013)

Achieving the Internal Gas Market by 2014

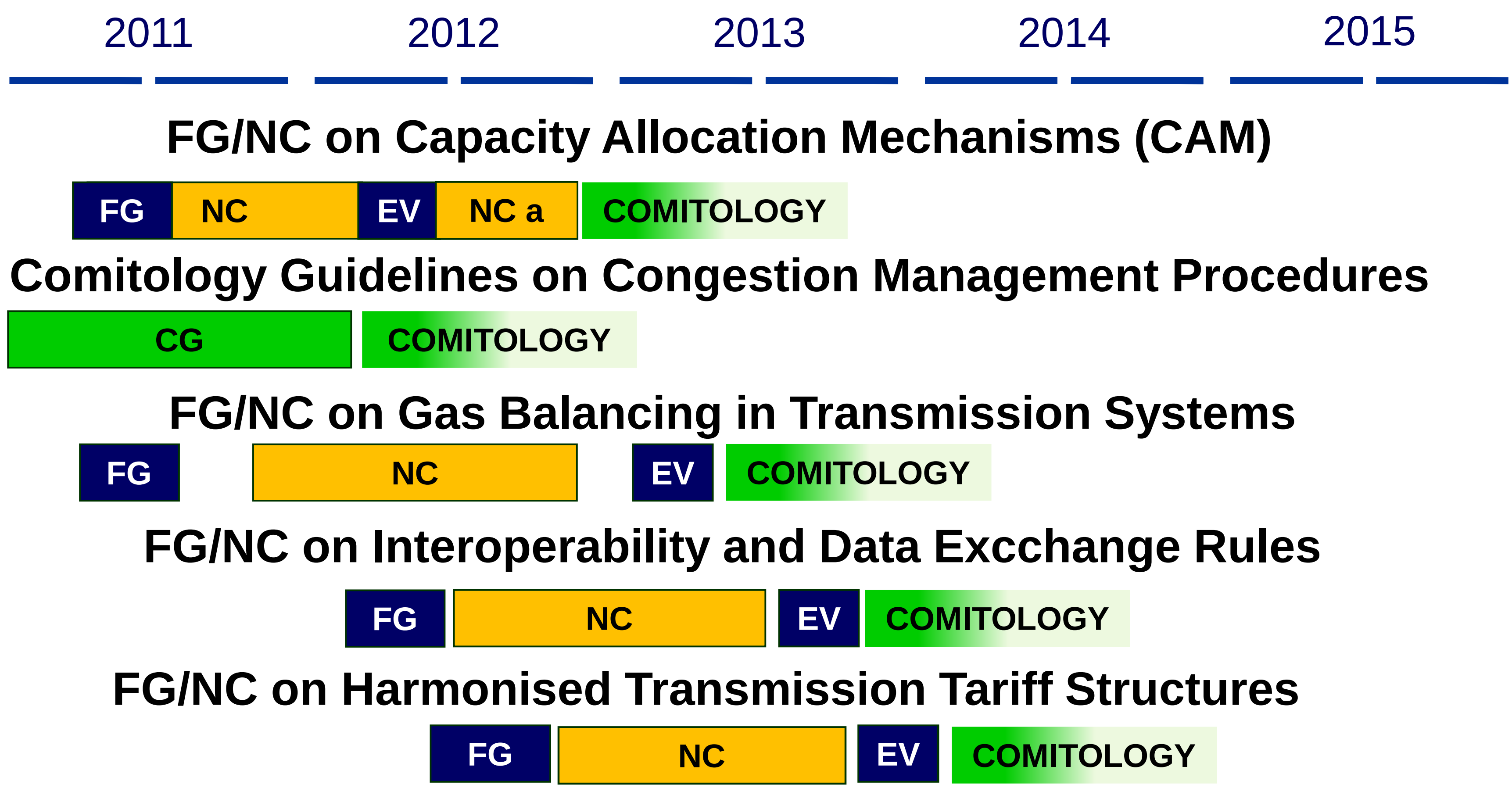
Formal Framework Guidelines / Network Codes process

- FG/NC on Capacity Allocation Mechanisms
- FG/NC on Balancing Rules
- FG/NC on Interoperability
- FG/NC on Harmonised Transmission Tariff Structures

Voluntary Coordinated Implementation of the Target Model

Pilot Projects and Platform for the Early Implementation of CAM (coordinated allocation, through market-based mechanisms, of a common set of bundled capacity products)

FG and NC planning



ACER ENTSO-G EP - EC NC a = NC amendment EV = Evaluation / opinion on NC

ACER
Agency for the Cooperation of Energy Regulators

Framework Guidelines

Title	Public Consult.	Issued	NC Expected
Capacity Allocation Mechanisms	Mar-May 2011	3 Aug 2011	6 Mar 2012 ACER RO 5 Jun 2012
Balancing	Apr-Jun 2011	18 Oct 2011	Q4 2012
Interoperability and Data Exchange Rules	Mar-May 2012	26 Jul 2012	Q2 2013
Harmonised Transmission Tariffs Rules	Q3/Q4 2012	Q1 2013	Q1 2014

Role of NCs in a broader context

- NCs are one of the important market enabling tools on the road to higher goals (competitiveness, efficiency, increased welfare, etc.)
- NCs in the context of the commodity and services markets help:
  - enhance energy markets liquidity and lucrativeness
  - better profile fuel-to-fuel competition
  - provide undistorted signals to investors, including in infrastructure and upstream
  - ensure adequate and timely information (key to proper market functioning)
  - broaden choices for optimal fuel mix policies on national, regional, pan-European scale
  - provide more options to those interested in enhanced energy efficiency
  - secure access to market for low carbon intensity energy
  - trickle down the benefits of a liquid, competitive and transparent market to more groups and the public at large
  - achieve better energy security
- NCs are helpful for assuring non-discrimination and transparency across the energy chain, from well to wheels

Other Regulatory Activities: Opinions and Recommendations

Opinion on:	Submitted to ACER	Public Consult.	Opinion Adopted
ENTSOG AoA, LoM, RoP	28 Feb 2011	To 5 April 2011	5 May 2011
Gas TYNDP	18 Jul 2011	n/a	16 Sep 2011
ENTSOG WP	22 Nov 2011	n/a	24 Jan 2012
Gas Winter Supply Outlook	14 Dec 2011	n/a	4 Jun 2012
Gas Summer Supply Outlook	24 May 2012	n/a	5 Sep 2012

Gas Roadmap

- The 21st Madrid Forum (March 2012) welcomed greater GRI emphasis on regional projects
- ENTSOG committed to work on a Roadmap for the early CAM NC implementation, based on pilot projects and platforms set up by TSOs
- A Roadmap for the integration of pilot projects into a single capacity allocation platform is being developed by TSOs in cooperation with NRAs, under the supervision of ACER and ENTSOG
- The Roadmap will be presented for endorsement at the next Madrid Forum (October 2012)

REMIT: a new challenge

Sector-specific, comprehensive <u>monitoring framework</u> for wholesale energy markets to <u>detect and deter market abuse</u>

To promote <u>confidence</u> of consumers and other market participants in the <u>integrity</u> of electricity and gas markets

ACER "is best placed to carry out such monitoring as it has both a Union-wide view of electricity and gas markets, and the necessary expertise in the operation of electricity and gas markets and systems in the Union" (recital 17)

Close cooperation and coordination between ACER and NRAs

Infrastructure: ACER's Role

- EIP mandate on consistency/information [1] :
  - “The Commission and the Agency shall strive for consistency between the different Groups. For this purpose, they shall ensure, when relevant, the exchange of information of all work representing an interregional interest between the Groups concerned.”

[1] *Council Rev 5, 31 July 2012, Annex III point 1(5).*

The Agency’s actions on EIP - BoR

- Regular monthly reporting at the Agency Board of Regulators

The Agency's actions - the working groups

- All methodological aspects of the EIP work are undertaken by the AEWG and AGWG, *inter alia* to ensure close interface with TYNDP-related activities

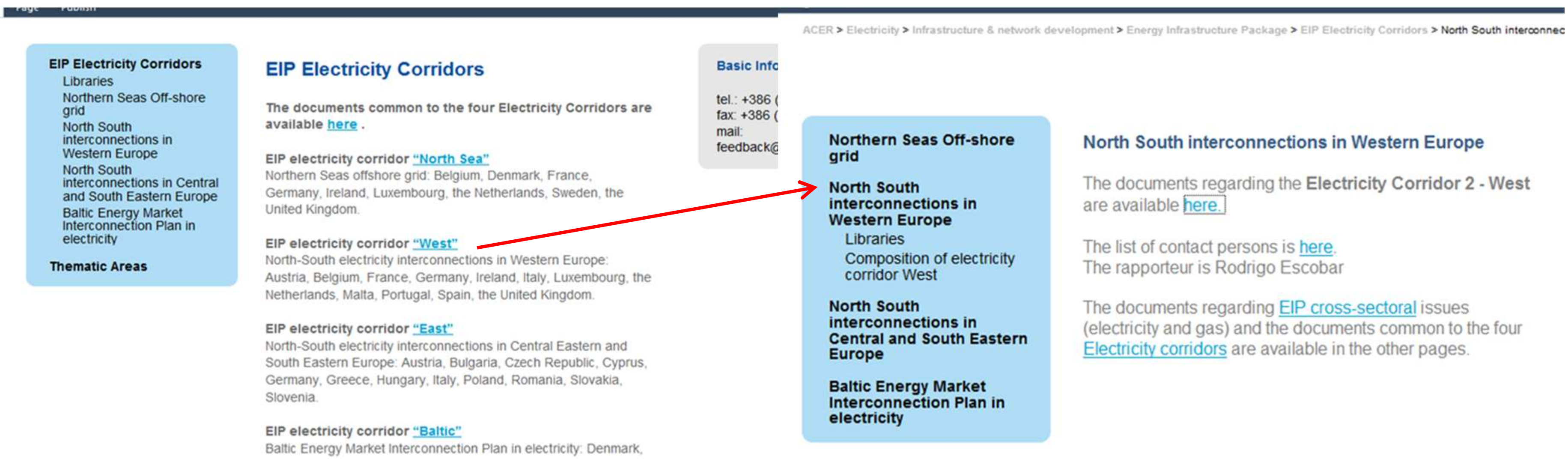
- Agency Electricity Working Group
  - Infrastructure task force (set up in May)
  - Energy Infrastructure Package workstream (set up in July)
  - (and TYNDP team set up in 2010)

- Agency Gas Working Group
  - Energy Infrastructure Package workstream (set up in July)

- Regional groups - rapporteurs

The Agency's actions - EIP virtual groups

- ACER active participation to the Groups
- Virtual structures have been established. In electricity, they correspond to the 8 EIP corridors and to 2 thematic areas in which the Agency is involved
  - Common platforms to exchange information, favor discussions at group level, and facilitate consistency
  - Lists of contacts from NRAs at group level
  - Rapporteur(s) and ACER contact person(s) at group level



ACER's actions on EIP - 2013 draft WP

- Opinion on the proposed regional lists of projects of common interest submitted by the Groups to the Agency
- Ensure the consistent application of the selection criteria and CBA methodology for submitted projects (evaluate EU added value) across the regions
- Ensure consistency between different Groups and exchange of information
- Opinion on the methodology for a harmonised energy system-wide cost-benefit analysis at Union-wide level
- Facilitate the sharing of good practice
- Make recommendations on incentives and risk assessment methodologies
- Decisions on investment requests, including cross-border project cost allocation (when NRAs fail to agree or upon a specific request)

http://www.acer.europa.eu/The_agency/Mission_and_Objectives/Related%20documents/Draft%20Work%20Programme%202013FIN.pdf

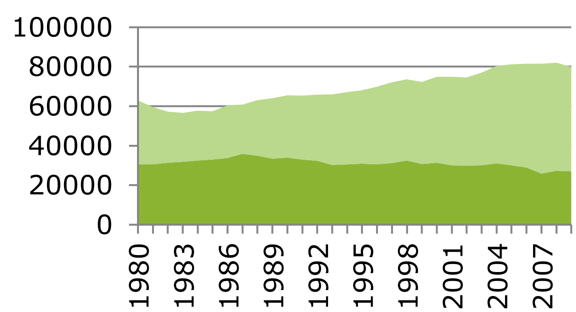
Thank you for your attention!

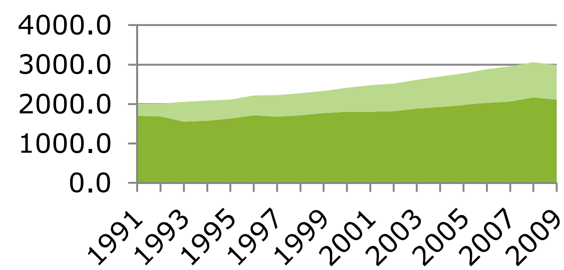
www.acer.europa.eu

ADDITIONAL SLIDES

Global Production and Trade in Energy

- About 85% of energy is fossil (oil, gas, coal)
- Oil: a global commodity
  - More than 60% of output is exported
  - About 90% of trade in oil is seaborne in tankers
- Gas: regionally traded
  - Less than 30% of output is exported
  - About 78% of international trade is piped gas
  - Over 60% of LNG trade is in Asia
- Coal:
  - Only hard coal traded internationally
  - Only about 14% of hard coal is exported, 50% in Asia
- Electricity: Only 3.1%-3.5% crosses a border (2% in 1980)





Oil production / exports, mbpd

Gas production / exports, bcmy

Source: BP, IEA, EIA

ACER
Agency for the Cooperation of Energy Regulators

No Substitubility Except in Heat Applications

	Residential			Commerc.		Industr.		Trans.
	L	H	Appl	H	L	Boil	Proc	
O-NG	-	Y	0	Y	-	Y	S	L
O-E	0	Y	0	Y	0	Y	S	L
O-C	-	Y	0	-	-	Y	0	-
NG-E	0	Y	Y	Y	0	Y	S	-
NG-C	-	Y	0	-	-	Y	0	-
E-C	0	Y	0	-	0	Y	0	-

ENERGY PRODUCTS HAVE BECOME MORE DIFFICULT TO SUBSTITUTE / REPLACE IN THE SHORT RUN.

ACER
Agency for the Cooperation of Energy Regulators

The Actual Markets, Risks

- The "energy market" is a <u>series of overlapping markets</u>
- Risks: specific by energy, country, region: many "energy securities" depending on nature & magnitude of risks, sensitivity of S/D
- Risks are difficult to address cross-border:
  - Disparate effects in the energy sector of each country (fuel mix, S/D patterns…)
  - Unpredictable effects on technology deployment .
- Many factors at play in S/D balance ("energy security"):
  - Prices and income, price vs. value
  - Information
  - Changes in technology (shale gas!)
  - Physical bottlenecks (Bosporus, Turkmen gas)
  - Changes in the price of capital in the long run… and energy
  - Mother nature, inclusive of weather
  - Perceptions about reliability of supplies
  - Population growth
  - Externalities (pollution, global warming, etc.).