

# ACER



Agency for the Cooperation  
of Energy Regulators

*WORKING TOWARDS A SINGLE ENERGY MARKET  
TO THE BENEFIT OF ALL EU CONSUMERS!*



## Gas & Electricity Market redesign

**Dennis Hesselting – Head of Gas Department**

**Flame, 10 May 2017, Amsterdam**

# Overview

- **Current functioning of gas market**
- Proposed electricity market redesign
- Potential implications for gas market

## A liquid hub which is key to well functioning markets needs to fulfil a set of requirements

- Access to multiple sourcing options
- Suppliers can
  - » source variety of gas products including forwards
  - » Manage price and trading risks
- Act as a price reference for setting prices of long term gas products
- Easy access and presence of financial parties



**EU hubs are at present at different stages of development**

# EU market is heterogeneous regarding hub development, with NBP and TTF in the lead

## A ranking of EU hubs based on 2015 monitoring results

### Established hubs

**Broad liquidity**

**Sizeable forward markets** which contribute to supply hedging

**Price reference for other EU hubs** and for long-term contracts indexation



### Advanced hubs

**High liquidity**

More reliant on spot products and balancing operations

Progress on supply hedging role but relatively **lower longer-term products liquidity levels** results in weaker price risk management role



### Emerging hubs

**Improving liquidity from a lower base** taking advantage of enhanced interconnectivity

Liquidity partially driven by market obligations imposed on incumbents

**Still significant reliance on long-term contracts**

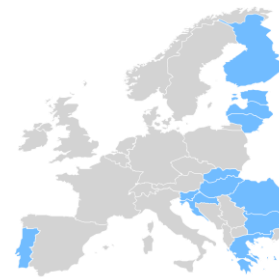


### Illiquid hubs

**Reliance chiefly on long-term contracts**

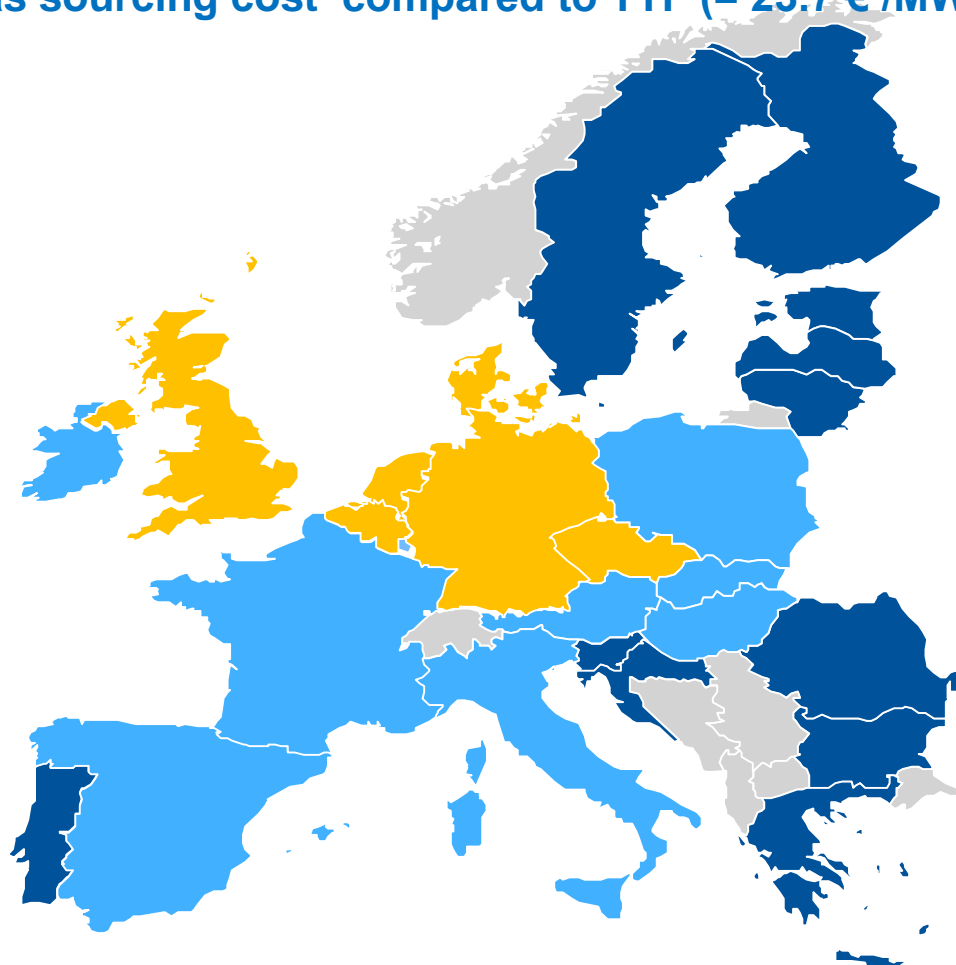
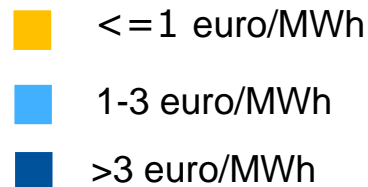
**Early stage** organised market places or lack of a hub

Absence of an entry-exit system in some markets



## Gas supply sourcing costs have been converging ...

2014 Calculated gas sourcing cost\* compared to TTF (= 23.7 €/MWh)



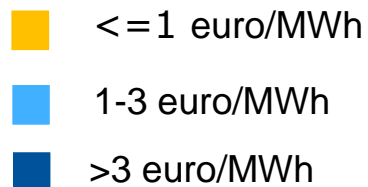
Price levels  
higher in those  
regions with:

- Weaker inter-connection
- Less competitive market frames
- Less developed hubs

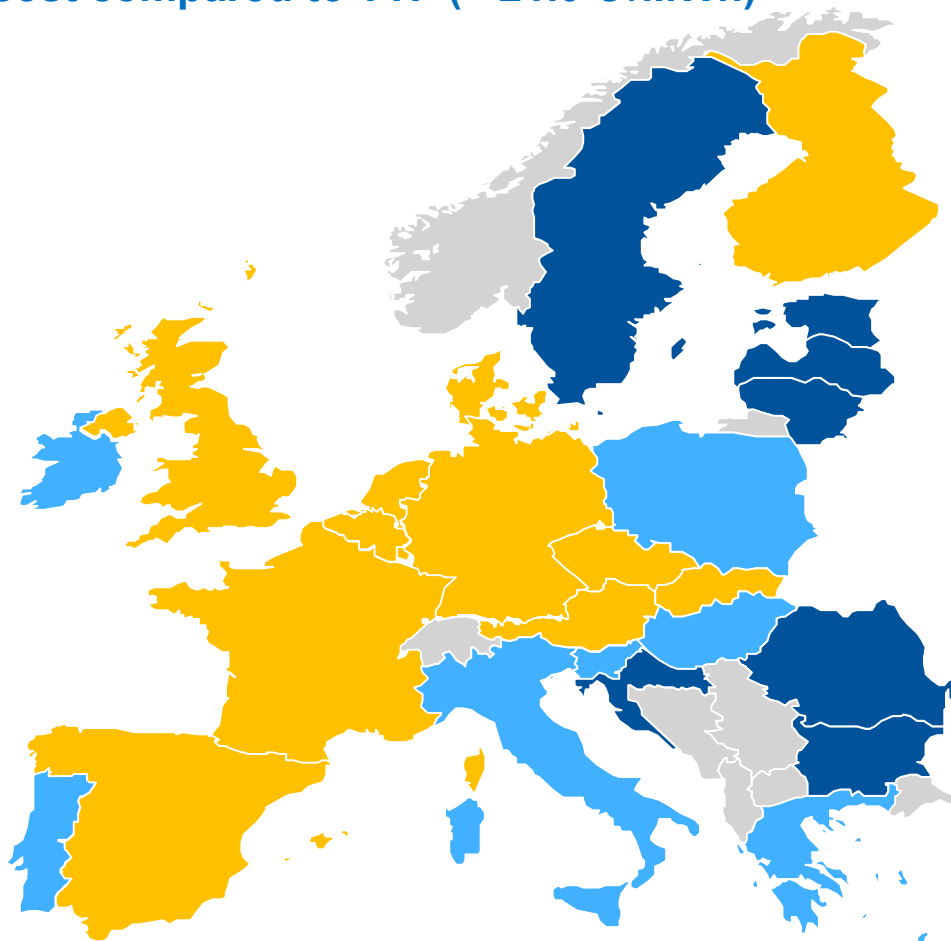
Note: Suppliers' sourcing costs assessment based on a weighted basket of border import and diverse hub product prices. For some countries sourcing of own production occurs at lower cost than the imports (e.g. HR, RO)

## ... 2015 saw further convergence, indicative of further market integration

2015 Calculated gas sourcing cost compared to TTF (= 21.0 € /MWh)



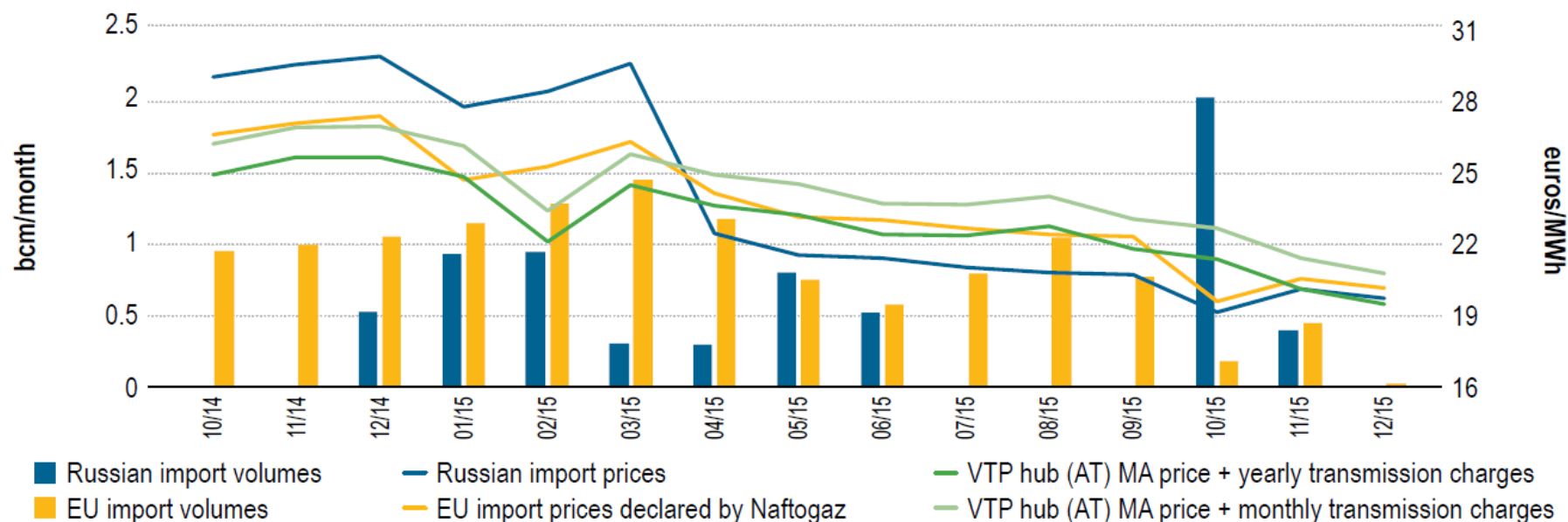
- Influence of lower oil price and gas oversupply
- Impact of reverse-flows
- Hub functioning
- Improved LNG competitiveness



Note: Suppliers' sourcing costs assessment based on a weighted basket of border import and diverse hub product prices. For some countries sourcing of own production occurs at lower cost than the imports (e.g. HR, RO)

# European internal gas market model is also of relevance to Energy Community countries

## Gas origin and assessed import prices for Ukraine during 2015 (euros/MWh)



**Reverse flow capabilities on EU outer borders and hub development allows Ukraine to tap into a second hub based gas source**

# The most important barriers to wholesale gas trading across EU MSs according to stakeholders

## Overarching messages

- Overall **regulatory regime**, including NCs **not challenged**. However, **development of NCs could be more forward looking** (taking into account future market developments)
- **State of market functioning** as described in the MMR **not challenged**

## Barrier

- **Transmission tariffs** are **too high** and/or non transparent
- **Not competitive short-term capacity products**
- Lack of, or **insufficient regulatory transparency**
- Lack of or **weak harmonisation between adjacent systems**
- Lack of use, or underuse, of English
- Existence of **long term legacy capacity reservations** and/or absent or inefficient mechanisms to deal with capacity hoarding at interconnection points
- **Reporting obligations for wholesale market participants**
- Lack of, or **weak, political support** to wholesale market development, lack of trust
- Lack of, or weak, virtual reverse flows and/or lack of, or **weak, efficient cross-border TSO cooperation**
- **Lack of market based balancing** procedures



- If Member States is unlikely to have a functioning wholesale gas market in near future, **structural market reform should be evaluated**
- The market reform should be:
  - Sensitive and appropriate, designed to reach the objectives of “market health” and meeting “participants needs”
  - Subject to a rigorous cost-benefit analysis
- Option for structural reform may include the following **market integration tools**:
  - **Market merger**
  - **Trading region**
  - **Satellite market**
- The GTM 2014 does not prescribe an exhaustive list, the right structural market reform should be rooted in the specifics of each situation (for example, **market coupling** can also provide a tool for an efficient connection of neighbouring markets)

## Completed integration projects

- Austria West and Germany NCG
- France: PEG Sud and TIGF
- Belgium and Luxembourg

## Integration projects under evaluation

- Iberian market (Portugal and Spain)
- Baltic States and Finland
- Austria East and Czech Republic
- Energy Community study
- V4 countries

- » **ACER (2014): Regulatory Implications of New Developments in the Gas Supply Chain (Kantor)**
- » **European Commission (started 2017): Quo vadis**
- » **CEER (started 2017): Future role of gas**

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## A SET OF COHERENT MEASURES

*"In essence the new package is about tapping our green growth potential across the board"*  
*Commissioner Miguel Arias Cañete (2016)*



Energy Union  
Governance



### Energy Efficiency

(Energy Efficiency  
Directive, European  
Performance of  
Buildings Directive)



### Renewables

(Revised Renewable  
Energy Directive)



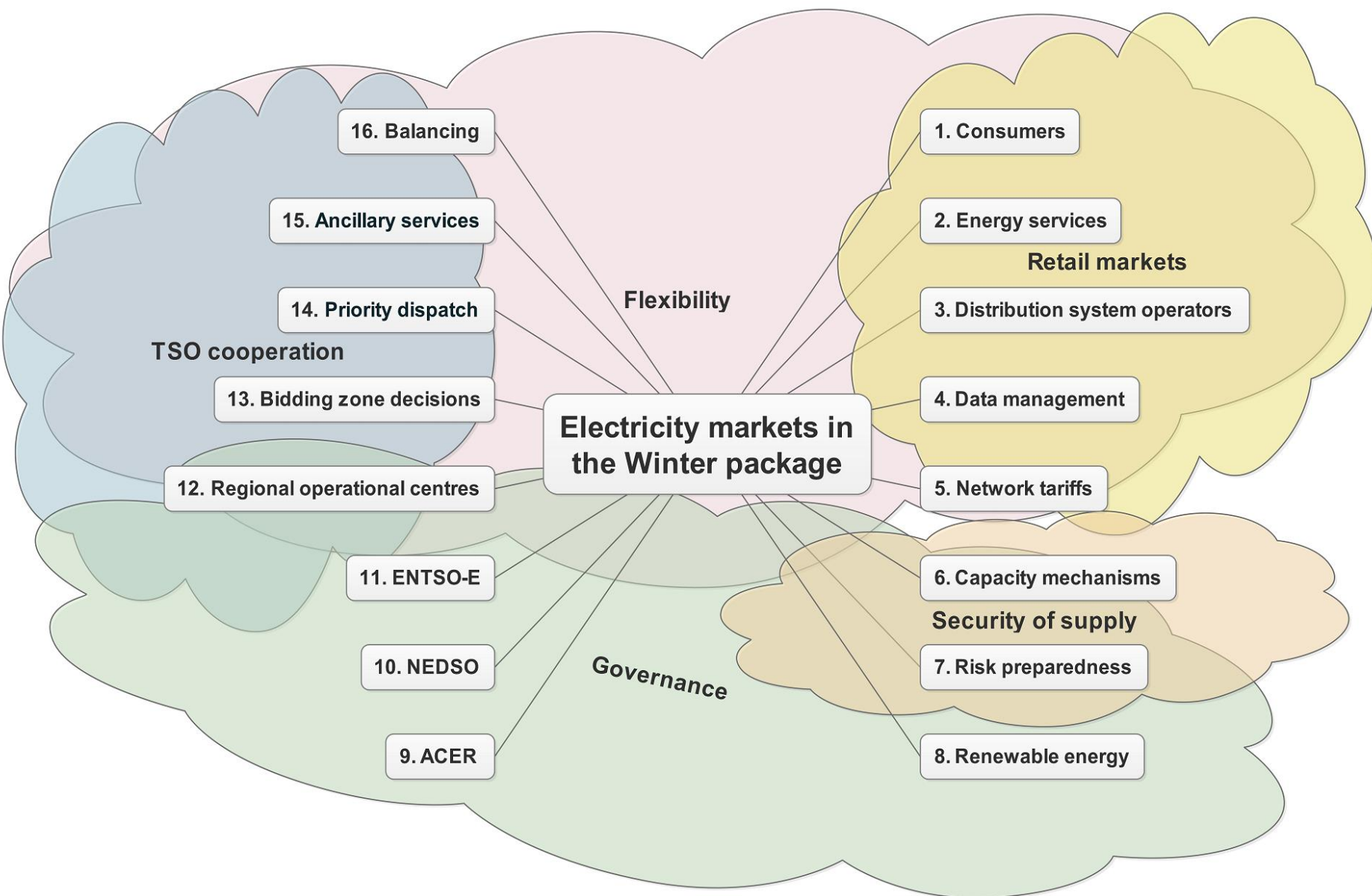
New Electricity  
Market Design  
(including Risk  
Preparedness)



Energy prices  
and costs  
report

# Electricity markets in the Winter package

MS/DG ENER/B2/28.2.2017



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## Retail markets

- As a rule, same provisions for gas
  - Free choice of supplier
  - Market-based prices
  - Entitlement to dynamic prices
  - Right to switch
  - Price comparison tools
  - Billing
  - Smart meters
  - Data management
  - Vulnerable customers
  - Energy poverty
- Some exceptions
  - Local Energy Communities
  - Demand Response (different in gas)



## TSO and DSO tasks

- » Some provisions also relevant for gas
- » No need for DSO NDPs, DSO Tariffs NC, EU DSO body?
- » Integration of electro-mobility: what about CNG/LNG for transport?
- » Need for some form of Regional Operational Centers?
- » Adapted Network Code process should be same for gas

## ACER and Regulators

- » Generally the same:
  - Independence and powers of NRAs
  - NRAs to approve tariffs *and* methodologies
- » Some provisions do not apply:
  - Approval of methodologies for implementation network codes
- » What about oversight of regional entities?

**Thank you for your attention**

**[www.acer.europa.eu](http://www.acer.europa.eu)**

## Oversight of ENTSOs and other Bodies

- Increasingly important role of ENTSOs
- Effective oversight by ACER of the ENTSOs and of other bodies with critical/monopoly IEM functions
- ACER to be able to issue binding decisions

## Stronger NRAs Coordination

- ACER to replace "all NRAs" in taking CACM 3rd-level decisions
- Mechanisms to further enhance cooperation and coordination among NRAs
- ACER to be allowed to issue "own-initiative":
  - "Peer review" Opinions
  - Recommendations for Good Practices
  - Opinions on the application of Guidelines

## Monitoring of Markets

- ACER to be given powers to require information from all EU energy-sector entities when needed for monitoring

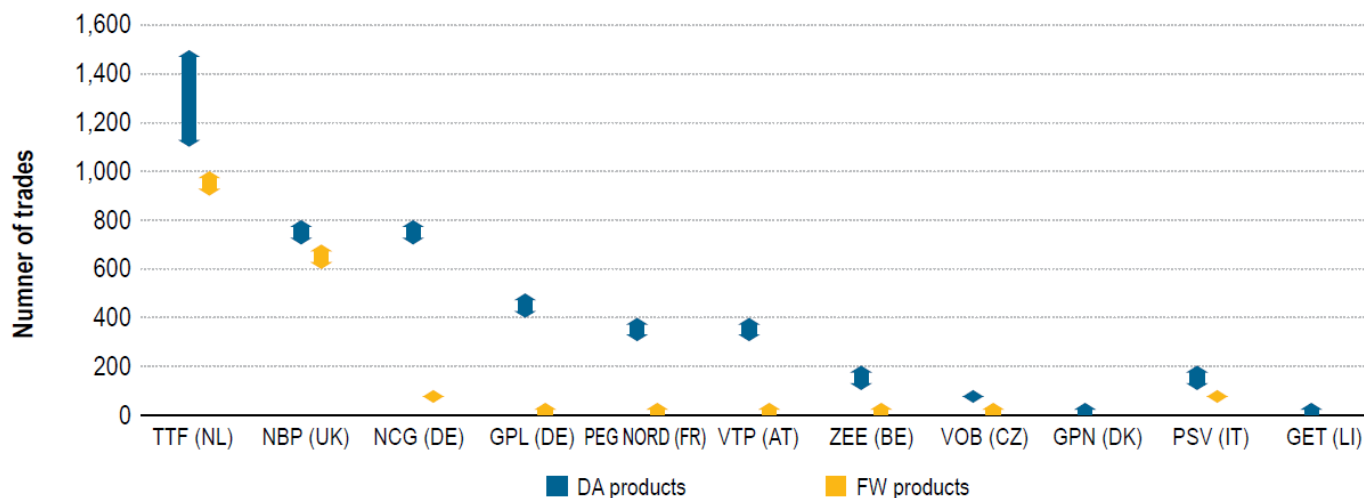
# TTF and NBP are the leading hubs in the EU in size and depth

## Evidence

- Larger number of trades
- Highest volume traded
- Tighter bid ask spreads for forward products
- Lower trade concentration levels
- Larger order book volumes
- Longer order book horizons

## Illustration

### Number of executed trades (daily average) for DA and FW products in selected hubs for November 2015–April 2016



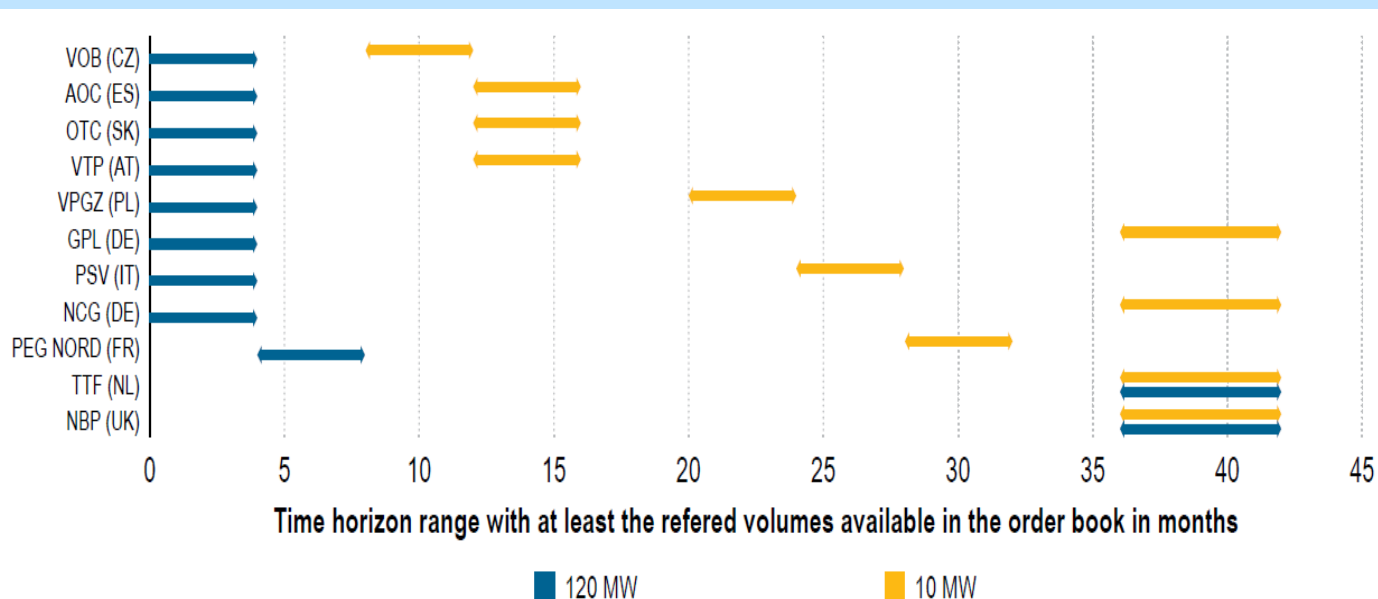
# TTF and NBP are the hubs the largest sizeable forward markets

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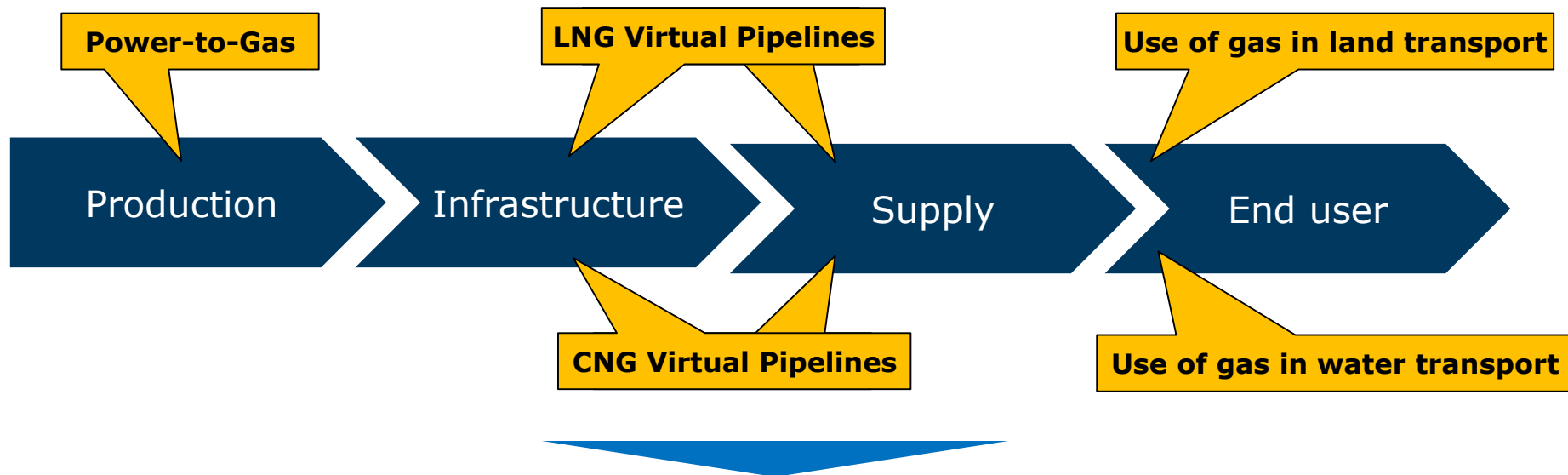
## Illustration

### Order book horizon in ranges of months for bids for forward products for different blocks of MWs – November 2015 - April 2016



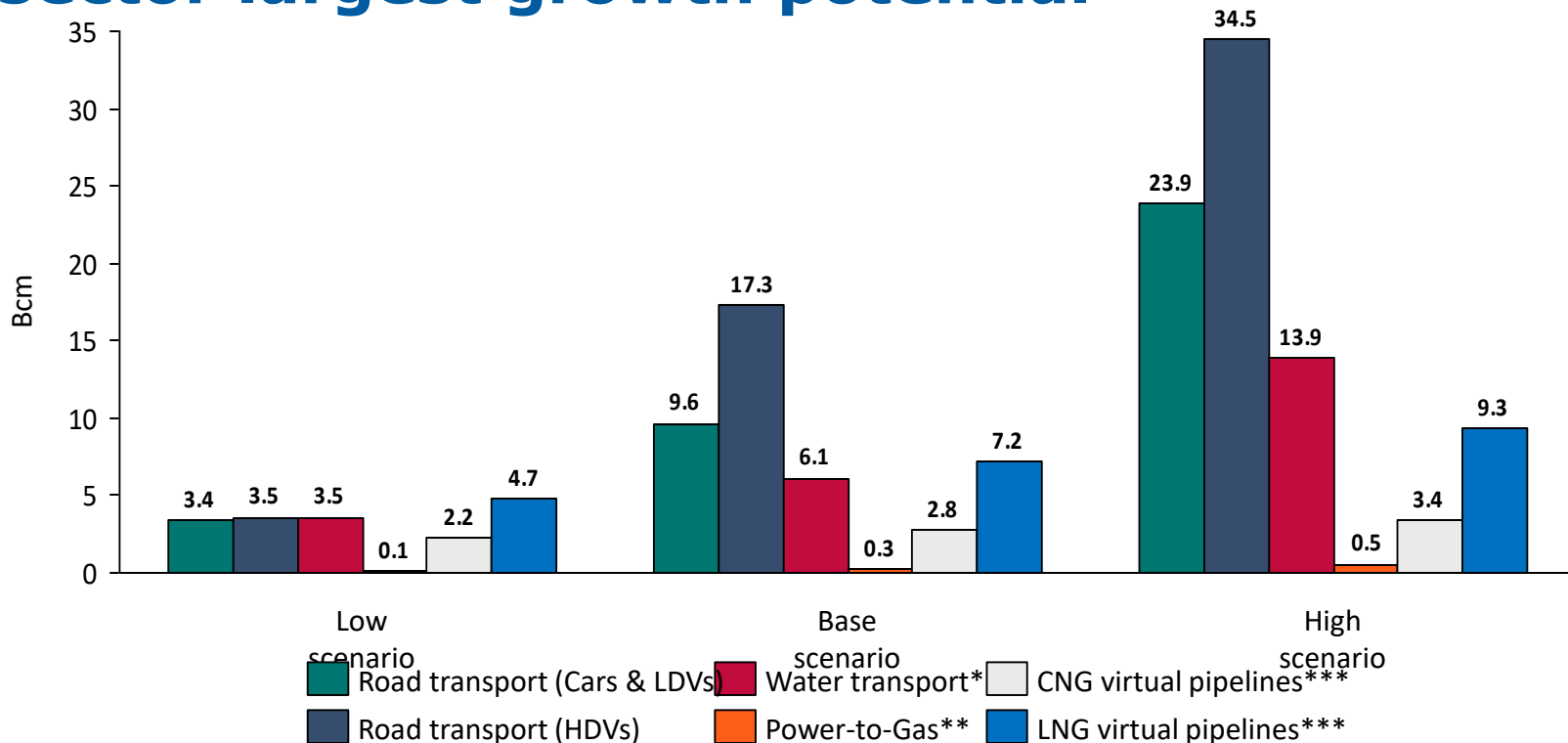
- Review of existing arrangements to minimise extent to which gas-fired power plants are artificially dis-incentivised from operating when it would be efficient to do so. Focus on:
  - Tariffs and capacity products offered on the domestic exit points
- Measures for efficient use of gas storage for all shippers (esp. serving unpredictable loads)
  - Incl. full unbundling of storage products
- Improve the joint working of the gas and electricity sectors: obligation on gas and electricity TSO to cooperate → better joint optimisation of both sectors
  - Improved information flows
  - Cooperative review of e.g. industry timelines
  - Potential for improved coordination in developing TYNDPs
- Not to pick winners (in terms of technology) but to enable removing unnecessary barriers which are not addressed through NCs

# New uses for gas have different roles across the gas supply chain



Virtual pipelines are closely related to the development of the use of gas in the transport sector, particularly in the case of LNG

## Aggregated new use of gas could constitute 3-15% of EU gas consumption in 2025, transport sector largest growth potential



\* Water transport: Data used are projections for 2020

\*\* Power-to-Gas: Hydrogen output converted to natural gas equivalent, using GCV of Russian gas

\*\*\* Virtual pipelines: Supply of CNG and LNG filling stations not included in the values



# New developments along the gas supply chain – recommendations

New development	ACER/NRA position
CNG virtual pipelines	<ul style="list-style-type: none"> <li>The national distribution Network Codes foresee supplies with CNG virtual pipelines, including clear provisions as to the connection of CNG shipments and dispatching of gas from CNG containers</li> </ul>
LNG virtual pipelines	<ul style="list-style-type: none"> <li>Examine the appropriateness of establishing an EU-wide approach for cases where LNG storage and loading facilities should be regulated</li> </ul>
CNG/LNG in land transport	<ul style="list-style-type: none"> <li>Ensure that CNG and LNG filling stations are considered end customers rather than gas suppliers, and therefore they are not obliged to conform to the requirements imposed on gas suppliers</li> <li>NRAs will include the supply of gas to the filling stations in their market monitoring practices</li> </ul>
LNG in water transport	<ul style="list-style-type: none"> <li>Establish a common approach setting out whether and when the bunkering of a vessel with LNG is a regulated activity or not</li> <li>Where the loading service provided by the LNG terminal is unregulated, enforce provisions accounting for the use of assets for both regulated and unregulated activities and reductions to the operator's RAB, where appropriate</li> </ul>
Power-to-gas	<ul style="list-style-type: none"> <li>Examine the regulatory framework and the impact of P2G technology, particularly as a tool for electricity balancing and demand-side response</li> </ul>

