ERRA 20th Jubilee Day

Keynote address by Alberto Pototschnig
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The EU Internal Energy Market: a 20+-year project

1st Package
“First common rules for the internal market and liberalisation”

2nd Package
“Speeding up liberalisation and market integration”
Full market opening; obligation for MSs to establish NRAs independent from industry; legal & functional unbundling

3rd Package
“EU-wide Institutional & Regulatory Framework”
Reinforcing unbundling (including ownership); harmonised cross-border rules; strengthened NRA independence & powers; establishment of ACER & ENTSOs

“Clean Energy” Package
“Meeting the decarbonisation challenge”
Enhance the electricity market design to promote flexibility and enhance supply security

EU Energy Policy over the last 20 years: from one to three pillars

- Sustainability
- Efficiency
- Security of Supply
EU Climate and Energy Targets

2020

- Greenhouse Gas Emissions w.r.t. 1990: -20%
- Renewable energy in final energy consumption: 20%
- Energy Efficiency: 20%
Completing the Internal Energy Market

Shared Vision: Electricity and Gas Target Models → Common Rules (Framework Guidelines and Network Codes) → Implementation and monitoring

A Parallel Process to deliver tangible benefits to EU energy consumers as soon as possible

Formal Framework Guidelines / Network Codes Process

Voluntary Early Implementation of the Target Model
The Internal Electricity Market – Day-ahead Market Coupling
Improving efficiency in the use of the interconnection capacity

Share of the available capacity used in the ‘right direction’ in the presence of a significant price differential (>1 €/MWh) in the day-ahead timeframe (%)

Estimated Annual Benefits
€ 1 billion

Source: ACER (2020)
The Internal Gas Market
Sourcing cost convergence

Calculated gas supply sourcing cost* compared to TTF - estimates

2013: TTF = 27.2 € /MWh
2018: TTF = 20.8 € /MWh
2019: TTF = 17.5 € /MWh

Suppliers’ sourcing cost assessment based on a weighted basket of border import and hub product prices.

Estimated Gross Annual Benefits
€ 3+ billion

Source: ACER (2020)
New EU Climate and Energy Targets

Greenhouse Gas Emissions w.r.t. 1990
- 2020: -20%
- 2030: -40%

Renewable energy in final energy consumption
- 2020: 20%
- 2030: 32%

Energy Efficiency
- 2020: 20%
- 2030: 32.5%

Green Deal 2030
- 55%

* Possible upward revision in 2023

Carbon neutrality by 2050
Achieving carbon-neutrality by 2050: a two-pillar energy strategy

Renewable electricity

Decarbonised Hydrogen

Hydrogen production by type

Source: BP 2020
Achieving carbon-neutrality by 2050

Challenges for the energy sector

- EU-wide resource adequacy assessment and approach
- Promoting renewable energies in an efficient and market-based way
- Repurposing gas network infrastructure to transport hydrogen
- Variability and flexibility in the electricity system
- A market and regulatory framework for hydrogen
- Integrating new resources into energy systems and markets
- Most efficient use of the electricity network

Sector Coupling
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<th>Policy-makers and regulators should not pick the winners, but rather ensure that the winners win (level playing field)</th>
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<td>A holistic approach which puts all renewable vectors in the more general context of sector integration and the energy and climate targets</td>
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<td>A technology-neutral market design and support schemes (ETS, GROs) which provide the correct price signals to achieve the energy and climate targets</td>
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<td>A set of targeted additional support measures for R&amp;D and infant technologies, to help them achieve commercial viability, recognising (and accepting) the induced distortions</td>
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Promoting renewable energies in an efficient and market-based way

Significant uncertainty over the pace of technological development and the cost of new technologies
The Flexibility Challenge for the Electricity System

- Increased Penetration of Renewable Energies
- Greater Variability of Power Injection in the Networks
- Greater Need for Flexibility in the Electricity System

- Flexible Generation
- Electricity Storage
- Electric Vehicles Charging
- Demand-Side Response

Most of these resources are/will be connected to distribution grids.
The Flexibility Challenge for the Electricity System

Absolute values of the residual load hourly ramps by country
(99.9 percentile = 3σ)

Source: ENTSO-E, Scenario Outlook and Adequacy Forecast 2015
The efficient management of the electricity network is essential to achieve the ambitious EU renewable penetration targets at a reasonable cost.

An inadequate zonal configuration and the resulting volumes of Loop Flows have led TSOs to limit cross-border capacity made available for trading on many zonal borders.

Average relative (per cent) margin available for cross-zonal trading on selected bidding-zone borders in Europe in 2018.

70% requirement set by the CEP.

Source: ACER/CEER MMR (2019 and 2020)
A market and regulatory framework for hydrogen

A hydrogen strategy for a climate-neutral Europe

To what extent could the regulation of hydrogen networks be derived from the gas network regulation?

National hydrogen strategies (published or under development)
Ensuring resource adequacy

Perceived need for capacity mechanisms based on the 2019 MAF results

A more coordinated approach to security of supply should contribute to prevent inconsistencies between EU and national adequacy assessments and to inform the need for capacity mechanisms.

Addressing adequacy at pan-European level, including through coordinated and robust adequacy assessments, would yield benefits of approximately €3 bn/year.

Source: ACER based on NRAs and ENTSO-E data.
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That’s it!
Thank you for your attention!

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