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ROBERT
SCHUMAN
CENTRE FOR
ADVANCED
STUDIES



Florence School of Regulation & the European Frame

Prof. Jean-Michel Glachant

Director

Overview

- **1 Florence School...**
- **2 European Single Market Frame...**
- **3 Energy as sector Specific European Regulation ...**

Overview

•1 Florence School...

An interactive Triangle

Training < | > Policy Dialogue < | > Applied Research

•2 European Single Market Frame...

An Internal Market with 4 dimensions

Goods + Services + Capital (and Euro) + People

•3 Energy as sector Specific European Regulation ...

With 3 pillars

Laws, Entities, Codes

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Florence School of Regulation (FSR)

Founded in 2004 as a '*Centre of Excellence*' for independent discussion and dissemination of knowledge in European regulation and policy.

Unique Forum

Regulators



Policy Makers



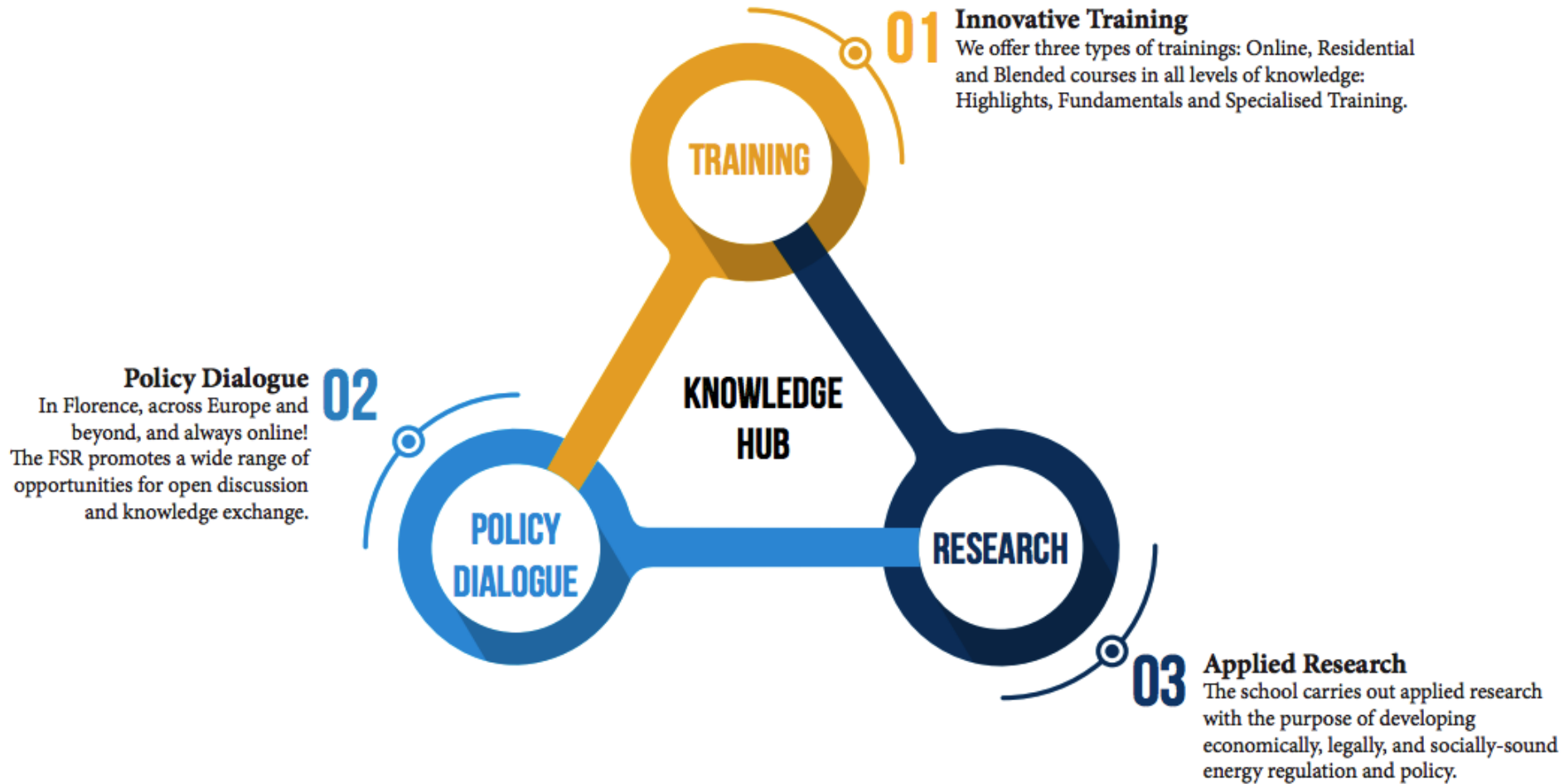
Academics



Industry



FSR Energy Model



FSR Research

POLICY BRIEF

European University Institute
ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES

Issue 2018/02
April 2018

Issue 2018/01
February 2018



Decarbonising the Gas Sector: is Renewable Gas a Serious Option?

By Andris Piebalgs and Maria Olczak,
Florence School of Regulation

Highlights



Towards a more Investment Friendly Economic Incentive Regime for Offshore Infrastructure Projects

By Pradyumna Bhagwat, Florence School of Regulation and Leandro Lind, Universidad Pontificia Comillas

Highlights

- Offshore infrastructure projects will play a key role in enabling the EU to meet its renewable energy goals. Therefore, effective economic incentives must be in place to ensure adequate investments.
- Since the liberalisation of the power sector, the use of 'incentive regulation' has become a standard practice among European regulators. This TSO incentive regulation is done in a 'portafolio' fashion.
- In the countries analysed, different risk/remuneration profiles are set according to the general regulatory regimes. These risk/remuneration profiles have not changed significantly since the previous study conducted by Glachant et al. (2013).¹
- Nevertheless, in recent years, regulators are also providing dedicated incentives for specific strategically important or necessary investments, including offshore projects.
- We observe that the trend of providing dedicated incentives appears to modify the risk/remuneration characteristics, leading to a more 'investment friendly' environment for TSOs, at least for certain types of assets, such as offshore transmission infrastructures.

1. Glachant, J.-M., Seguin, M., Rioux, V., Douquet, S., 2013. Incentives for investments: Comparing EU electricity TSO regulatory regimes. doi:10.2870/80768.

fsr.eui.eu

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FLORENCE SCHOOL OF REGULATION ENERGY

THE EU ELECTRICITY NETWORK CODES

TECHNICAL REPORT
FEBRUARY 2018

AUTHORS
LEONARDO MEEUS
TIM SCHITTEKATTE

LOYOLA DE PALACIO SERIES ON EUROPEAN ENERGY POLICY
EUI Elgar

ELECTRICITY NETWORK REGULATION IN THE EU

The Challenges Ahead for Transmission and Distribution

EDITED BY
Leonardo Meeus
Jean-Michel Glachant

European University Institute
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FLORENCE SCHOOL OF REGULATION ENERGY

RESEARCH REPORT

Incentives for investments: Comparing EU electricity TSO regulatory regimes

Pradyumna Bhagwat, Leandro Lind, Pratik Bhattacharya

European University Institute
ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES
FLORENCE SCHOOL OF REGULATION ENERGY

DESIGN THE ELECTRICITY MARKET(S) OF THE FUTURE

PROCEEDINGS FROM THE EURELECTRIC-FLORENCE SCHOOL OF REGULATION CONFERENCE
7 JUNE 2017

FSR Training



EU Electricity Network Codes

Next edition: 25 September – 29 November 2018

Type of training: Online

Director: Leonardo Meeus

Registration is open!



EU Clean Energy Package

Next edition: 8 May – 14 June 2018

Type of training: Online

Director: Leonardo Meeus



FSR-CEER Fundamentals of Energy Regulation

Next edition: 12-16 March 2018

Type of training: Residential

Director: Koen Locquet and Ilaria Conti

Registration is open!



Summer School on Regulation of Energy Utilities

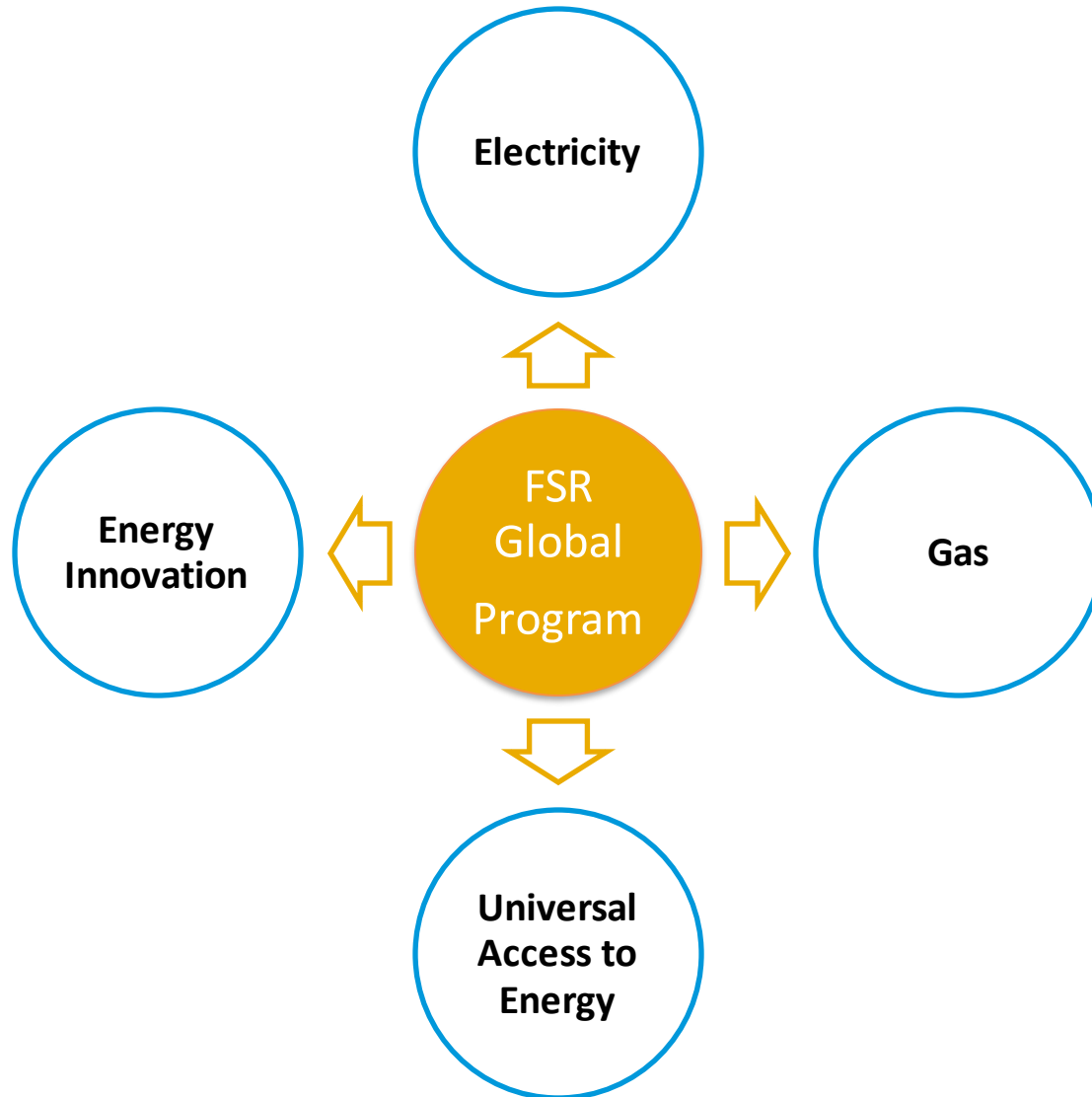
Next edition: 25-29 June 2018

Type of training: Residential

Director: Carlos Batlle

Registration is open!

FSR Energy Areas



Pillar 1: FSR Global Training



FSR Global Training – New and Innovative



The Regulation of the Power Sector

Next Edition: 8 October 2018 – 8 February 2019

Type of training: Online

Director: Ignacio Pérez-Arriaga

Registration is open!



Regulation for Universal Access to Energy

Next Edition: 5 March – 16 July 2018

Type of training: Online

Director: Ignacio Pérez-Arriaga



FSR training regulators in Morocco

Published on 15th December 2017

On the 31st of October and 1st of November 2017, the Florence School of Regulation supported the German Development Agency (GIZ) by creating and delivering a tailor-made training course for the Moroccan authorities. [Read more](#)

FSR Training day at The World Forum on Energy Regulation (WFER) for world energy regulators
20-23 March 2018, Mexico

Upcoming Online Training:

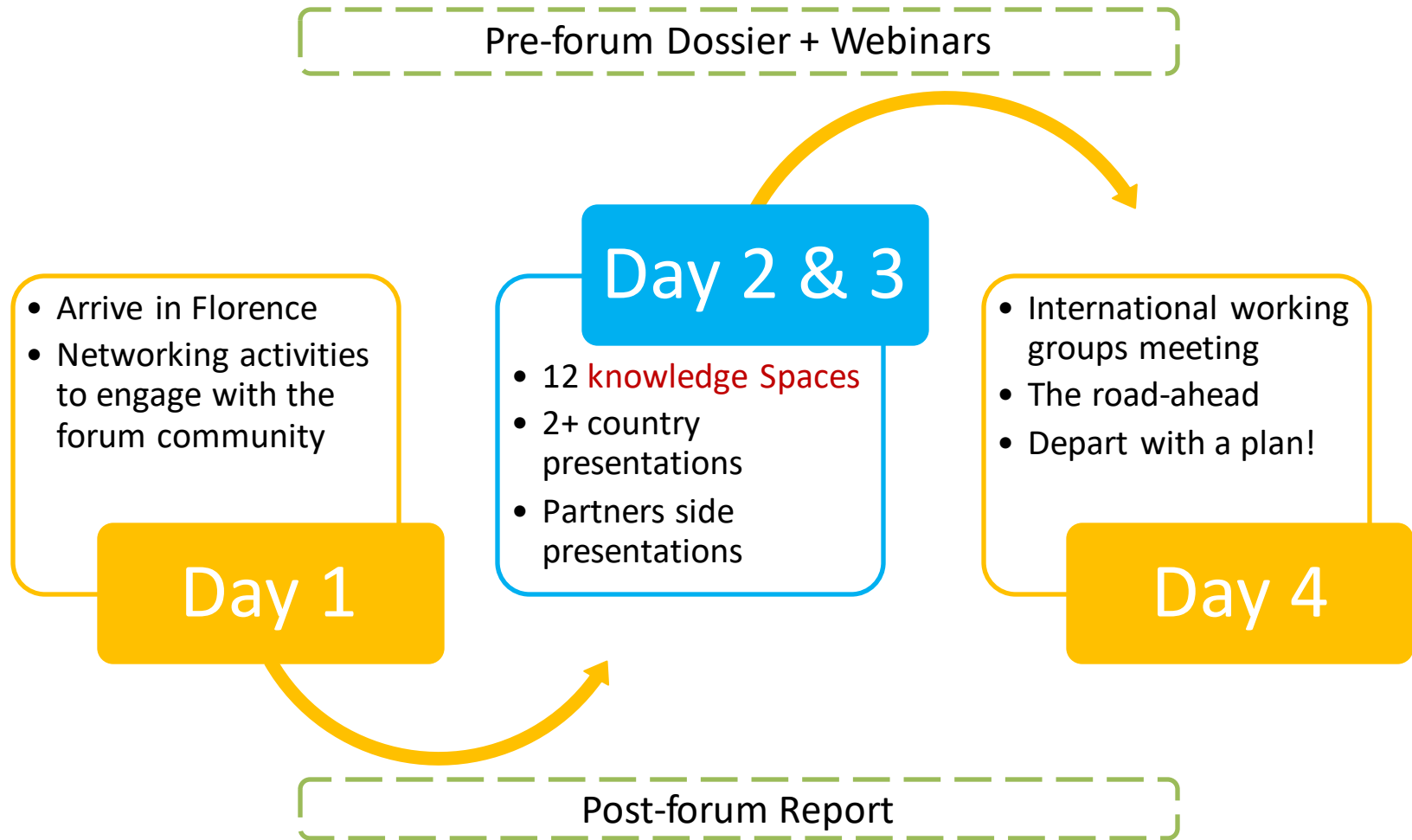
+ Regulatory Delivery in collaboration with Brazilian regulators

+ EU Clean Energy Transition in collaboration with ENTSO-E

Launching March 2019

The Global Forum Agenda*

World Energy Transition



* List of activities per day (TBC)

Cont.

FSR Global Forum Research Lines

Universal access to energy

- Providing electricity access in the global north: Energy poverty & Local energy communities
- Providing electricity access in the global south: Providing first time access & Providing firm and reliable access

Electric vehicles

- Integration of EVs in to the power market

Digitalisation

- Integration of flexibility through digitisation

Regionalisation of electricity markets

- Network and market integration in the global north
- Network and market integration in the global south

Smart Habitats

- Electrifying the economy through cross-sector nexus

Electricity storage

- Integration of batteries in to the power market

Contact



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European Single Market Frame

A 50 years “modular” journey, made step by step...

•1 Open border for goods...

Rome Treaty (1957) Common Market for goods

11 years to eliminate tax & non-tax barriers among us, and to coordinate our customs with non-members: 1968 Custom Union

Big role to VAT as ‘EU good tax frame’: VAT does not ‘cascade’ between EU companies, covers external imports (when they are consumed) and not external exports (which are not consumed).

•2 Open border for services..

Started in 1974, made ‘constitutional’ by 2007 Lisbon Treaty: no discrimination among EU companies or individuals

European Single Market Frame

A 50 years “modular” journey, made step by step...

•3 Open border for capital...

Directive 1988/361: no control on capital flows between European Member States

Maastricht Treaty 1992 did create our ‘Economic & Monetary Union’, leading to Eurozone & Euro in 2002, and our common central Bank ECB

•4 Open border for people..

Step by step: Schengen Agreements 1985 & 1990; made ‘constitutional’ in Amsterdam Treaty 1999, reinforced by Lisbon Treaty 2007

>> EU citizens now have ‘EU citizenship’ & can call ‘European Court of Justice’ as Supreme Court above all governments & all national courts

European Single Market Frame

Very flexible: our novelties can be shared with our neighbors ...

•5 EU Custom Union...

1995: shared with Turkey for goods (exceptions for coal & steel), not services, not agriculture

•4 EU 'Four Opening'..

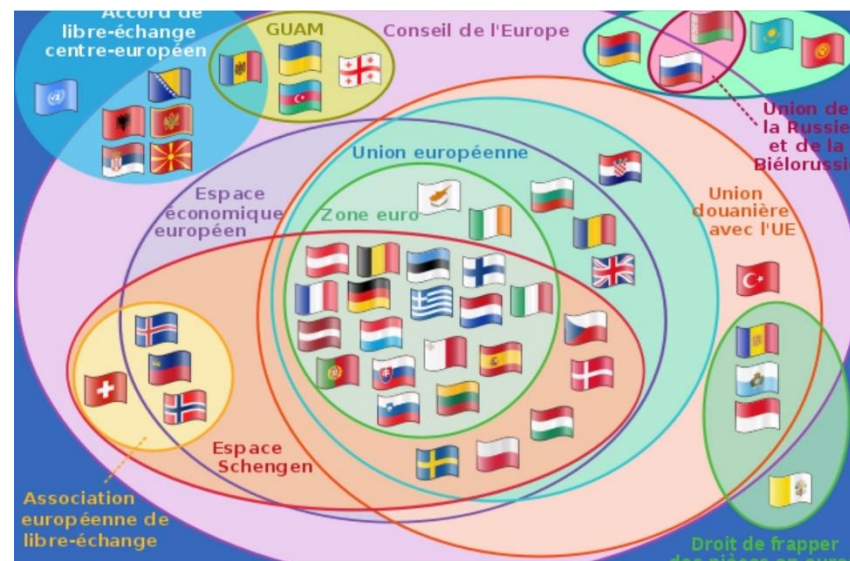
1992: shared with Norway & Iceland (Goods, Services, Capital & Labour) **but** no Custom Union because no coordination of tariff with Third Party Countries

Flexibility of European Market Frames

Integration of non-EU states



- European Union member states
- Non-EU states that participate in the EU Single Market with exceptions: Iceland, Liechtenstein, Norway and Switzerland (see also EFTA)
- Non-EU states with a Stabilisation and Association Agreement with the EU allowing for participation in selected sectors of the Single Market: EU accession candidates Albania, Macedonia, Montenegro and Serbia; potential EU accession candidates: Bosnia and Herzegovina and Kosovo
- Non-EU states with a Deep and Comprehensive Free Trade Area agreement with the EU allowing for participation in selected sectors of the Single Market: Georgia, Moldova and Ukraine
- Non-EU states which have a bilateral Customs Union arrangement with the EU: Turkey, Andorra, Monaco and San Marino



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Laws, Entities, Codes

EU energy laws: Packages & Grids

Grid regulation Level: Member States or EU?

1996 1st Package: negotiated or regulated at MS level

2003 2nd Package: Regulator at MS level + EU crossborder

2009 3d Package: Indep Regulator at MS + Obeying EU Law +
EU EN.TSO & ACER

EU energy laws: Packages & Markets

Market regulation Level: Member States or EU?

2003 2nd Package: full retail opening at MS level + EU
crossborder ‘fair’ rules

2009 3d Package: **more EU EN.TSO + ACER + Codes +
‘Market Target Model’**

°Loose market monitoring from financial regulation capped by
REMIT 2010 specific energy monitoring (ACER+ NRAs)

EU energy laws: Packages & Energy Mix

Energy Mix Level: Member States or EU?

- In EU “Energy Mix” sovereign right of Member States (See Nuclear – prohibited in Austria / 80% in France; coal in Germany vs UK)
- big limits: RES directives + EU ETS as “voluntarily” constraints for MS’s Energy Mix

Energy Mix Channel: Energy Regulator or Compet. Authority?

- EU Court ruling: RES support “Environmental Public Policy” not market-based BUT support to be notified to DG COMP as “**State Aid**” (14 Billion in 2010) > **DG Comp Guidelines 2014**
- Support Schemes (Gov. MS) + Dispatch priority (Ener. Reg)
- Regulators involved (Connections; Congestion; Balancing; TSO planning & incentives; Distribution grid regulation)

EU energy: The entities

DG Comp

Grid regulation Channel: Regulator or Compet. Authority?

2007 Sector Enquiry + “smoking guns” policy by DG COMP

°Eon, RWE **disinvest from grids**

°2009 Swedish TSO reviews congestion management scheme
(priority national vis à vis Foreigners)> **more bidding zones**

Grid regulation Level: Member States or EU?

2003 2nd Package: Regulator at MS level + EU crossborder

2009 3d Package: Indep Regulator at MS

+ **EU EN.TSO (Ten Year Development Plans & Gen. Adequacy)** 24

EU energy: The entities

DG Comp

Market regulation Channel: Energy Reg. or Compet. Authority?

°2005 **EU Court** suppress LT priority access to elec interco

°Basic market rules: free Merchant PX vs reg. Market Coupling

+ **Grid Codes & implicit 'Market Target Model'**

Network Codes (Table from 2015)

Network Codes	Connection Codes	Requirements for Generators	
		Demand Connection Code	
		HVDC Connections	
	Operational Codes	Operational Security	
		Operational Planning & Scheduling	
		Load Frequency Control & Reserves	
	Market Codes	Capacity Allocation & Congestion Management	
		Forward Capacity Allocation	
		Electricity Balancing	
		Emergency and Restoration Procedures	new
		Tariff Structure	new

What's a Package?

It is... a Package...

•1.1 It packs various areas...

as: Gas & Elec; Renewables & Energy Efficiency

•1.2 It packs different types of EU laws...

Directives: EU Targets, becoming national rules AFTER being transposed into each country legal frame

(Ex: Creation of TSOs & Unbundling)

Regulations: EU rules, becoming immediately applicable in each country, without any ‘national Transposition’

(Ex: EU TSOs ‘Ten Year Network Development Plan’; EU Generation Adequacy Assessment)

What's a Package?

•1.3 Are different types of EU law implemented the same?...

Directive Laws being transposed > to become national laws; implemented by national administrations, special entities (as TSOs & NRAs), players (as companies & consumers). Plus National Decrees of application.

Regulation Laws being not transposed > are 'only' EU Laws; having NO EU administrations, NO EU entities (as TSOs & NRAs), NO EU players (as companies & consumers). They have to be implemented by same 28 national frames like 'national laws'. NO European decrees of application.

1.4 Other EU rules “Commission Implementing Regulation”

Network Codes > drafted by ACER (principles) and ENTSO-E (rules / Methodologies) >> agreed by Comitology (for Guidelines & Codes) >> implemented as EU Regulation

1.5 Other **Methodologies** >> ENTSO-E & Nat Reg.

In practice: “EU 4th Package” is a pack... of

Market Design Pack is made of four proposals:

1- Directive for Internal Market (Retail & Consumers)

2- Regulation for Internal Market (Network, Resource Adeq, Entso, EIU-DSO)

3- Regulation for ACER

4- Regulation for electricity risk preparedness

➤ **1 Directive & 3 Regulations**

Energy Policy Pack has three proposals:

1- Renewables Energy Package incl. Bioenergy (Directive) > Target RES

2- Energy Union Governance (Regulation)

3- Energy Efficiency (Directive) Performance Buildings (Directive) > Target EE

> + 1- ETS revision 2021-2030 (Directive) > Target GHG Emissions

➤ **4 Directives & 1 Regulation**

Trilogue Deal 19th-20th June

Council-Parliament-Commission

**Governance of
the Energy
Union: Council
confirms deal
reached with the
European
Parliament**

Renewable energy directive: By 2030 32% of the energy consumed in the EU will come from renewables.

The EU ambassadors of the member states confirmed, on behalf of the Council, the provisional agreement reached on 19-20 June between the Bulgarian Presidency and the European Parliament on the **Energy Union governance regulation**.

Energy Union Governance deal

Timeline> National Provisional 2030 Plan Ener & Climate sent on 31/12/18 – Reactions Commission on 30/06/19 – Final National PEC on 31/12/19

Targets> in 2030 EU RES Target is 32% - EU “Reference Points” are: in 2022 18% of EU 2030 Target – in 2025 43% - in 2027 65% of EU 2030 Target

>>EU Energy Efficiency Reference Points to be set at same years

Gap Filling Mechanisms

- all Nat gaps with 2020 RES Nat baseline to be covered in 1 year by MS
- In 2022, 2025, 2027: IF EU RES Target not reached, each MS below the reference points shall act nationally
- For Energy Efficiency no such country Reference Points: Com. Law prop

LT Strategies

Each MS submits LT national strategies (+30 years) in line with Paris Agreement (1.5°C / 2°C) common to all EU MS

ACER proposals Commission

New tasks

- Final proposal Network Codes (Entso-e down technical expert + formal word to EU-DSOs) + Competence methodologies for implementing Codes & Guidelines
 - >>> Key to regional regulation. Director's opinion on genuine regional matter – Creation of regional sub-Committee ACER Board of Regulators; except if Board maintains its whole competence
 - >> >> Coordination of Regional Operation Centers
 - >> >>> Supervision of Nominated Electricity Market Operators
 - >>> >>> Approval of methodologies & proposals for Generation Adequacy & Elec. Risk Preparedness



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Thank You!

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