

***FSR Annual Conference:
Future Trends in Energy Market Design***

***The regulatory dimension:
a roundtable of senior regulators***

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Autorità per l'energia elettrica e il gas

Future trends in energy markets: system integration and network issues

- Europe will reinforce cooperation among Member States to drive the development of energy sectors
- Achieving the EU target of a low carbon economy will involve a larger reliance on renewable energy resources
- This will require increasing investments, reforms to network regulatory arrangements - key duty of regulators- and adjustments of market design



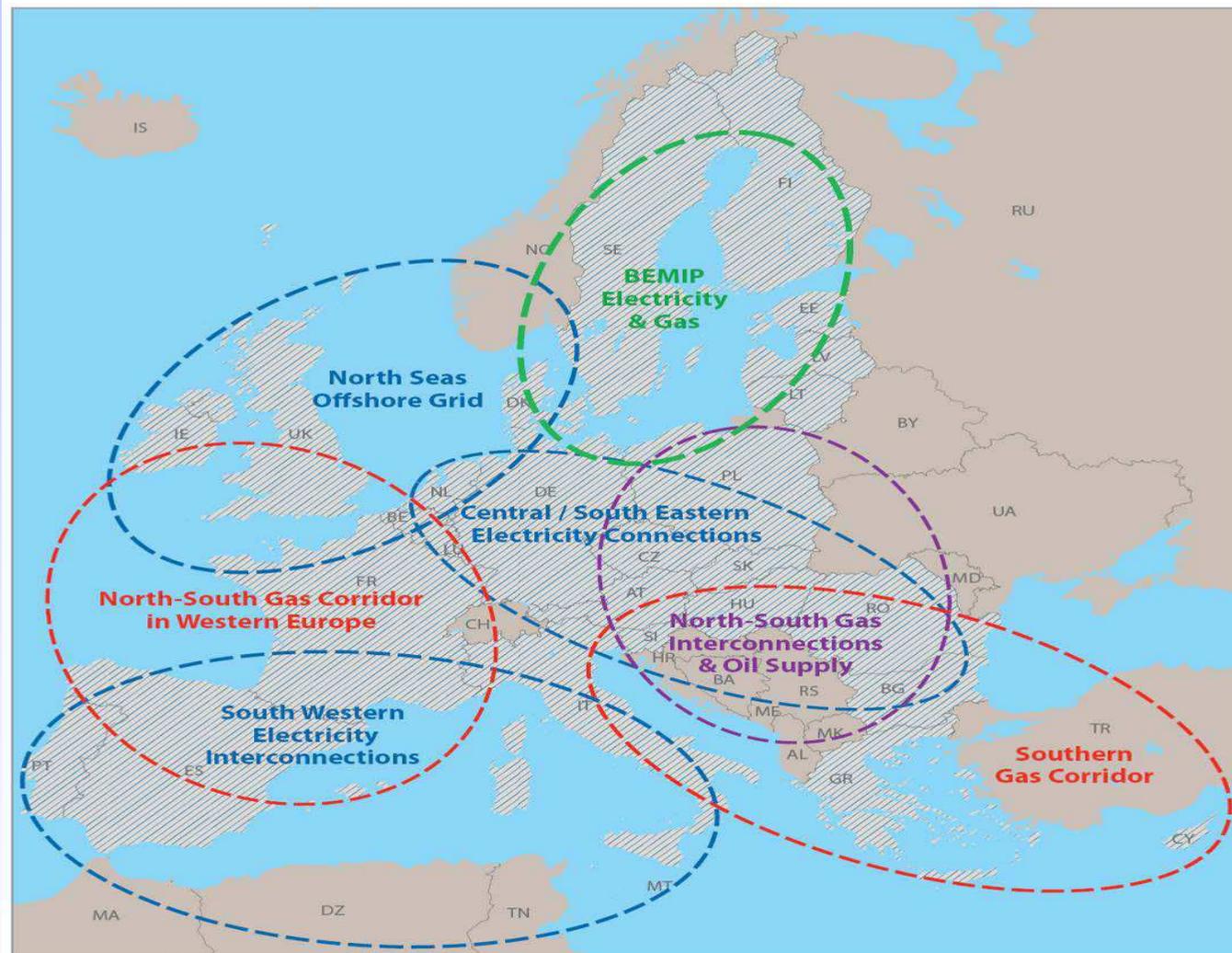
Investment needs in the European energy network 2011-2020 (bn€)

Sector	Business as usual (current TEN E Policy)	Total investment need (EC Communication Nov. 2010)	Commercially viable	Investment gap
Electricity	45	142	90	52
Gas	57	71	63	8
CO2 transport	0	2,5	0	2,5
TOTAL	102	215,5	153	62,5

Source: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions "Energy infrastructure priorities for 2020 and beyond – A Blueprint for an integrated European energy network - Impact assessment , 17.11.2010



Priority corridors for electricity, gas and oil



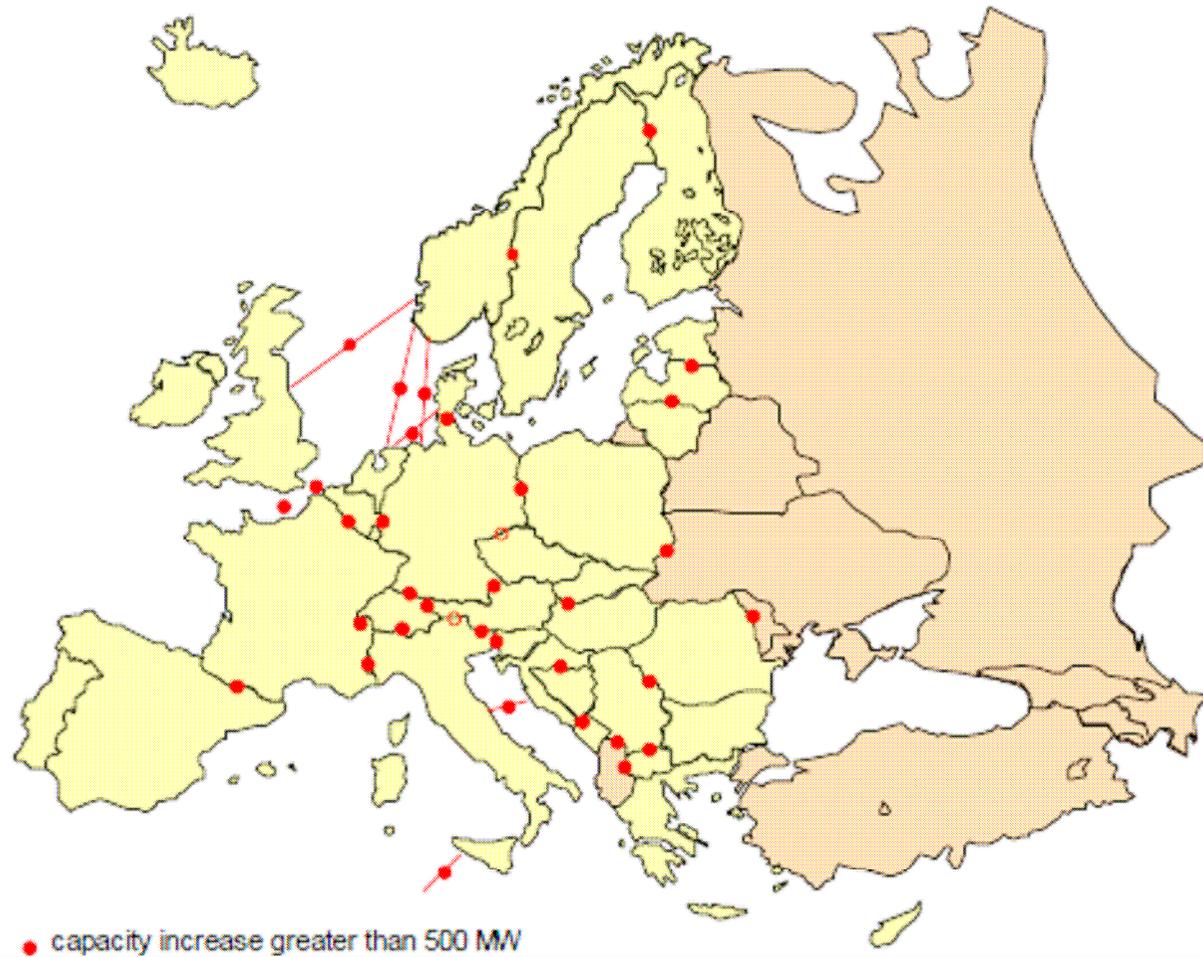
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- Gas
- Electricity
- Electricity and gas
- Oil and gas
- Smart Grids for Electricity in the EU



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Major transmission capacity increase in Europe in 2015 and beyond (longer term)

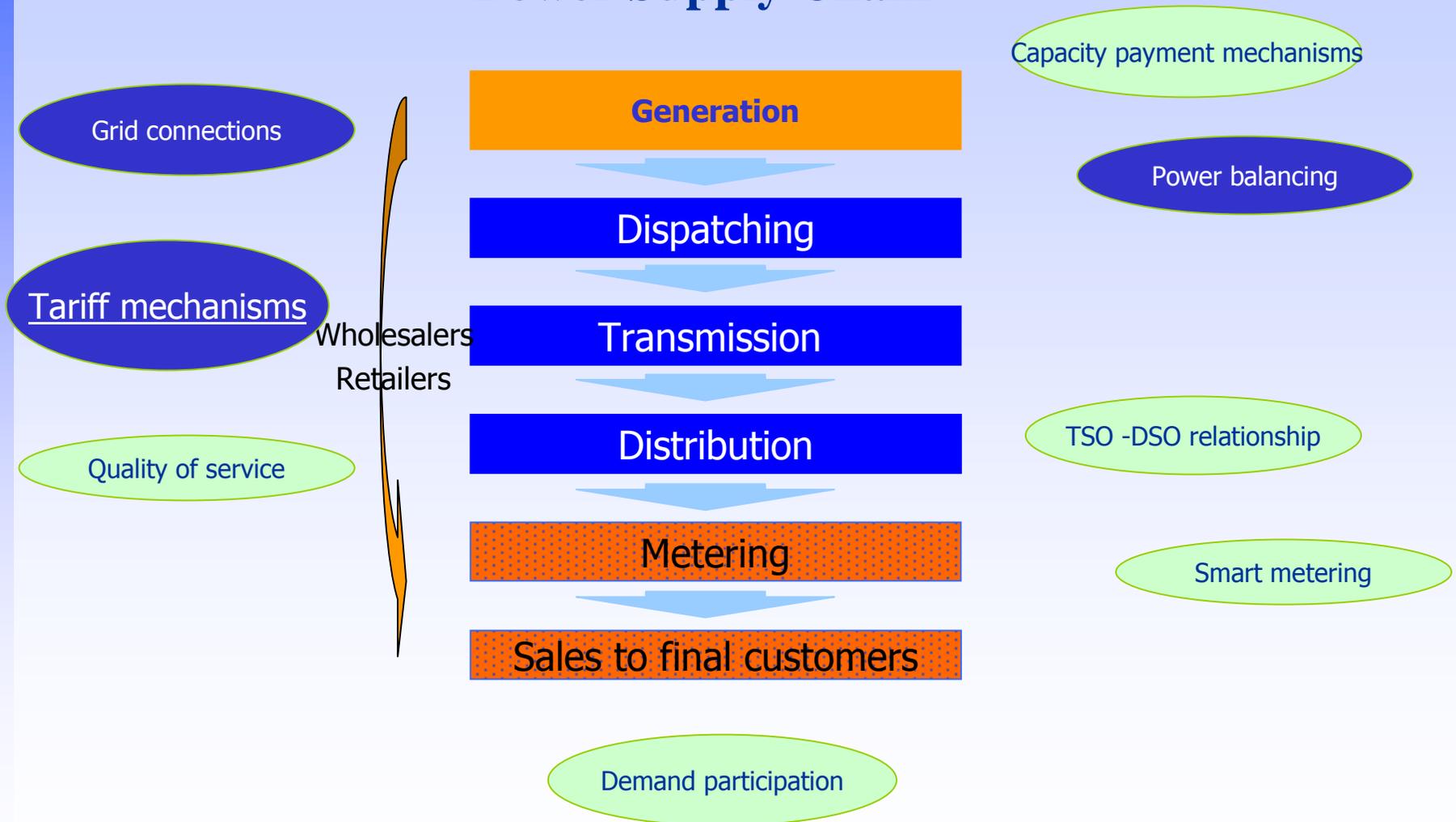


Source: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions "Energy infrastructure priorities for 2020 and beyond – A Blueprint for an integrated European energy network - Impact assessment, 17.11.2010



Integration of renewables: main regulatory challenges

Power Supply Chain



Regulatory challenges in network arrangements

- EU energy policy: calling for “a step change” in the way we plan, construct and operate our energy networks
 - *ACER should have a pre-eminent role in giving advice to political decision makers on EU strategic infrastructure projects and tariff harmonisation at EU level*
- **Strong need for new investments to support EU energy policy**
 - *At national level: huge investments in innovative and riskier activities, with long term perspectives, see smart grids*
 - *At supranational level: huge investments in cross border infrastructures, including projects with potential positive externalities but non-commercial, EU wide benefits*



Italy: an example to consider for future harmonised tariffs?

- Since 2001, the Italian regulator has focused on regulation aimed at promoting investments:
 - *on a medium/long term perspective;*
 - *providing extra incentives to investments which are considered **strategic**.*
- For electricity, incentive remuneration (9-10% before taxes in real terms) over a 8-12 year period is currently paid for new investments which help to:
 - *renovate distribution networks*
 - *reduce congestions in the transmission grid*
- Introduction of indicators for investments effectiveness is planned for next year.

Activity	WACC	Δ- WACC
Distribution	7 %	+2%
Transmission	6,9 %	+3%
Metering	7,2 %	



Italy: a regulation aimed at promoting smart grids and innovative projects

- In Italy all R&D activities for the electricity system is funded by a specific component in the grid tariff.
- Existing regulation for the remuneration of investments in electricity distribution (Decree 348/07) also envisages:
 - *extra remuneration for new investments in automation, security and control systems for active Medium Voltage grids (smart grids): 2% over a 12-year period;*
 - *selection criteria and procedures for admitted investments will be determined by the Authority. Projects will be selected by a Commission according to their potential to contribute to the development of distributed generation and expected benefits in terms of voltage quality.*



Further considerations on network development and its implications for market design

- Non-distorting network arrangements have a role in letting the market provide correct signals for efficient siting of new electricity generation capacity
- New cross border network capacity and trading may contribute to mitigating the negative impact of an increasing proportion of renewable intermittent generation, balancing demand patterns between different systems

