Cross-Border Transmission Planning – the EU case

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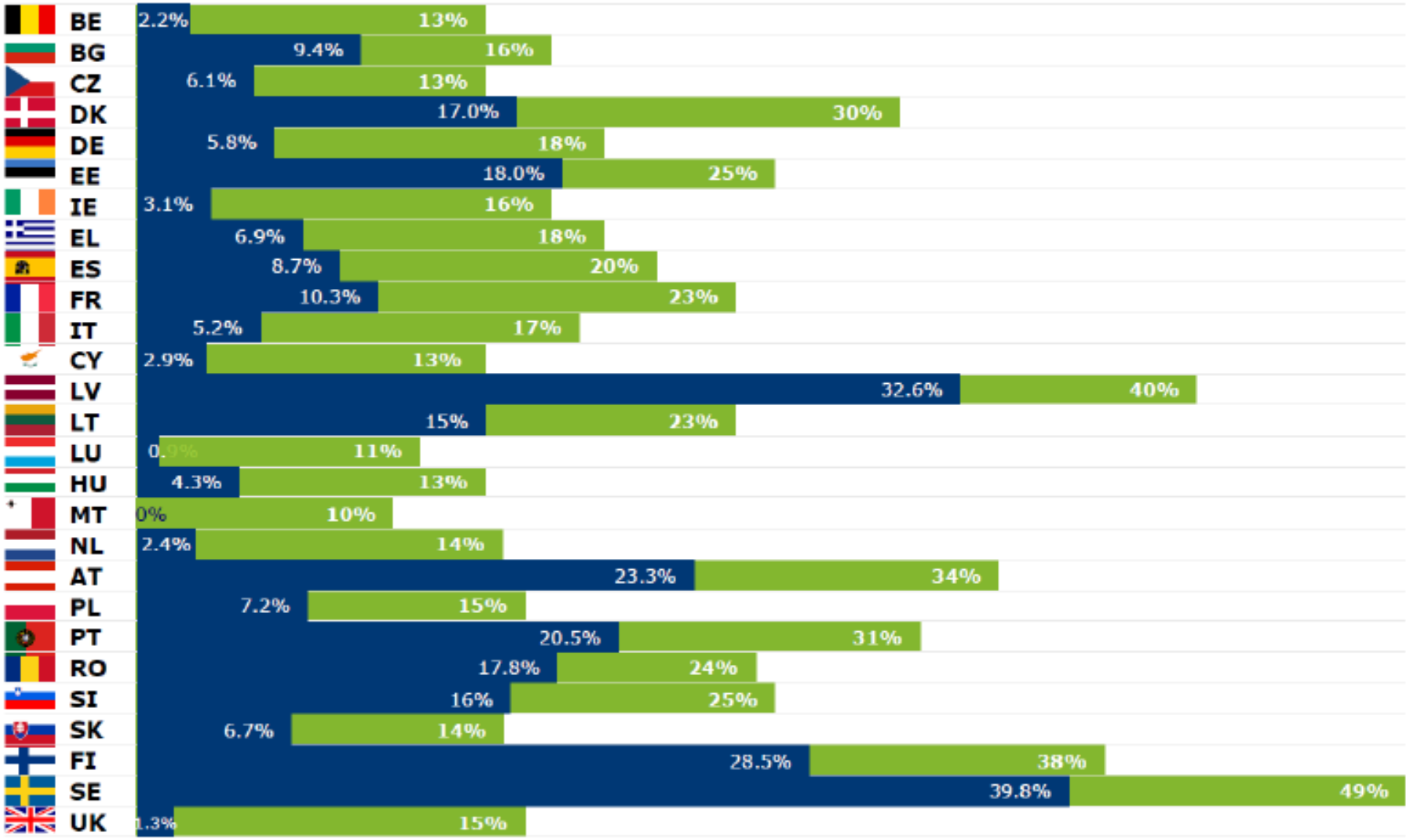
Structure of presentation

- European needs for electricity transmission network investments
  - EU energy policy goals
- Ten-Year Network Development Plan
- Challenges to overcome
  - Permitting
  - Financing of network investments
- Concluding remarks

EU energy policy goals 20-20-20 by 2020

- Sustainability
  - Reduction of greenhouse gases
  - Renewables
  - Energy efficiency
- Security of supply
- Competitiveness and market integration

National RES targets



Ten-Year Network Development Plan - TYNDP

- ENTSO-E shall adopt and publish a Community-wide network development plan every two years
- It shall include
  - modelling of the integrated network
  - scenario development
  - a European generation adequacy outlook and
  - an assessment of the resilience of the system
- ACER shall provide an opinion on draft TYNDP (non-discrimination, effective competition, the efficient functioning of the market or a sufficient level of cross-border interconnection open to third-party access)

Prerequisites for TYNDP

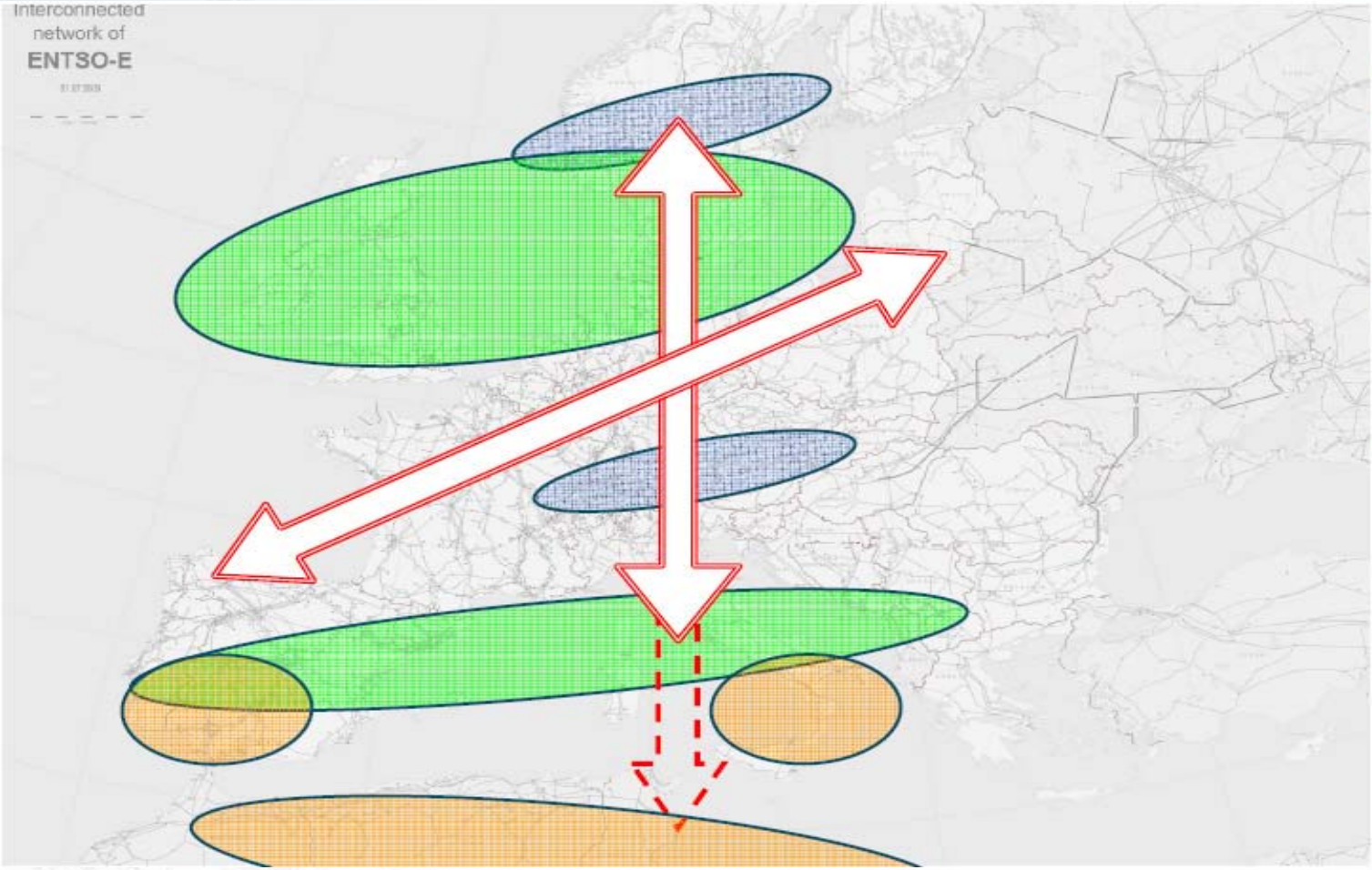
- National investment plans, taking into account regional investment plans and Community aspects of network planning
- Reasonable needs of different system users (in case of cross-border investments)
- Identified investment gaps, notably with respect to cross-border capacities

TYNDP should identify investment needs of European significance based on multi-TSO studies with ENTSO-E regional and EU-wide analysis

Main drivers for investments in new or refurbished power lines

Source: ENTSO-E TYNDP

Effects of development in generation and demand



new windpower

new hydropower

new solarpower

growing transmission needs

Source:
ENTSO-E
TYNDP

Financing of investments

- The price tag of TYNDP 100 billion euro of which ca 25 million in the first five years
- Need for sound, stable and predictable regulatory framework
- Risk perception of TSO business has increased (high leverage, legislation uncertainty, slow payback, new challenges like DC grids, smart grids, etc.)

Permitting

- Permitting is the biggest challenge for TSOs
- Non-harmonised legislation between countries and even within countries
- Different processes for different technologies
- High number of permitting authorities
- Lack of time limits
- Public awareness and attitude → a lot of local opposition to transmission lines

Concluding remarks

- Investments in transmission infrastructure are the key to achieve the EU energy policy goals!
  - ✓ Critical for renewables
  - ✓ Indispensable for market integration
  - ✓ Necessary for security of supply
- EU Commission is preparing an Energy Infrastructure Package, which is due in November
  - ✓ EIP will cover electricity and gas
  - ✓ Identify infrastructure corridors
  - ✓ Propose concrete measures (what, how who)

Thank you for your attention