ENTSO-E's Ten Year Network Development Plan

- Improvements and forward steps
- New role of TYNDP under the Reg. (EU) 347/2013

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Continental Central South

Regional Group CCS Stakeholder Workshop

Rome, March 20th 2014

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Reliable Sustainable Connected

Content

1. ENTSO-E in a nutshell
2. TYDNP and Regulation 714/2009
3. TYNDP and regulation 347/2013
4. Four advantages of being in the TYNDP
5. TYNDP improvements steps

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International TSO cooperation: we are ENTSO-E

- 41 TSOs from 34 countries
- Founded on 19 Dec 2008 and fully operational since July 2009
- A trans-European network
  - 525 million citizens served
  - 828 GW generation
  - 305,000 km of transmission lines
  - 3,400 TWh/year demand
  - 400 TWh/year exchanges
- Replaces former TSO organisations: ATSOI, BALTSO, RTSO, NORDEL, UCTE, UKTSOA

System Development

System Operation

Electricity Market

Research and Development

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ENTSO-E association

Key activities set out in Regulation 714/2009 part of the 3rd Internal Energy Market Package)

- Deliver **network codes**
- Deliver **Ten Year Network Development Plan** including an system outlook and adequacy reports
- Deliver crucial aspects of **market integration** ("market coupling")
- **R&D Plan** (fully included in EEGI – European Electricity Grid Initiative, part of the SET Plan)

Through its members deliver the **infrastructure** to:

- enable markets to function,
- secure energy supply,
- meet climate change objectives through connecting RES

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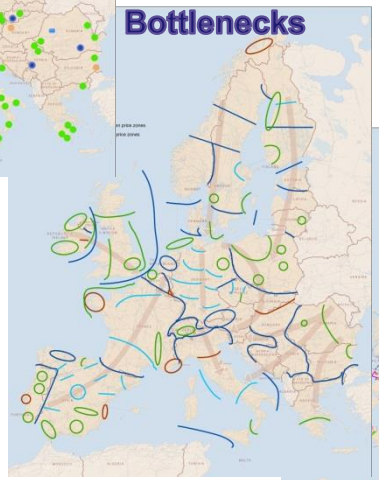
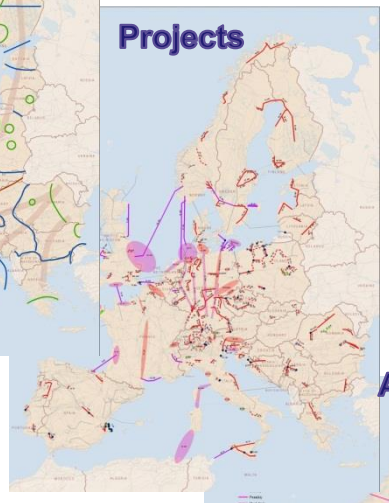
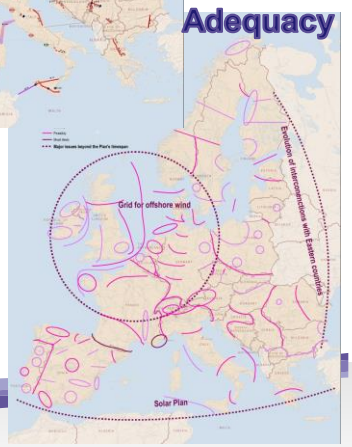
Why a European Ten-Year Network Development Plan?

Regulation (EC) 714/2009 – "In order to ensure greater transparency regarding the entire electricity transmission network in the [Union], the ENTSO for Electricity should draw up, publish and regularly update a non-binding [Union]-wide ten-year network development plan"







Transparency

TSO cooperation platform

Stakeholder involvement

Inform EU policy and investment decisions

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The 3rd Package defines the TYNDP

Non binding
Every 2 years

Regulators check consistency

Binding
Every year

EU-TYNDP

- Generation adequacy outlook 5 yr up to 15yr (→ 2030!)
- modelling integrated networks
- Scenario development
- Assessment of resilience
- Based on reasonable needs of system users
- Identify investments gaps
- Review barriers to increase cross border capacities arising from approval procedures

Build on nat. gen. adequacy Outlooks and invest. plans

Take into account

Nat. TYNDPs

- Existing and forecast supply demand
- Efficient measures to guarantee adequacy & SoS
- Indicate main transmission infrastructure to be built
- Based on reasonable assumptions about evolution of generation
- Supply consumption and exchanges

Non binding
Every 2 years

Regional Investment Plans

Take into account

Take into account

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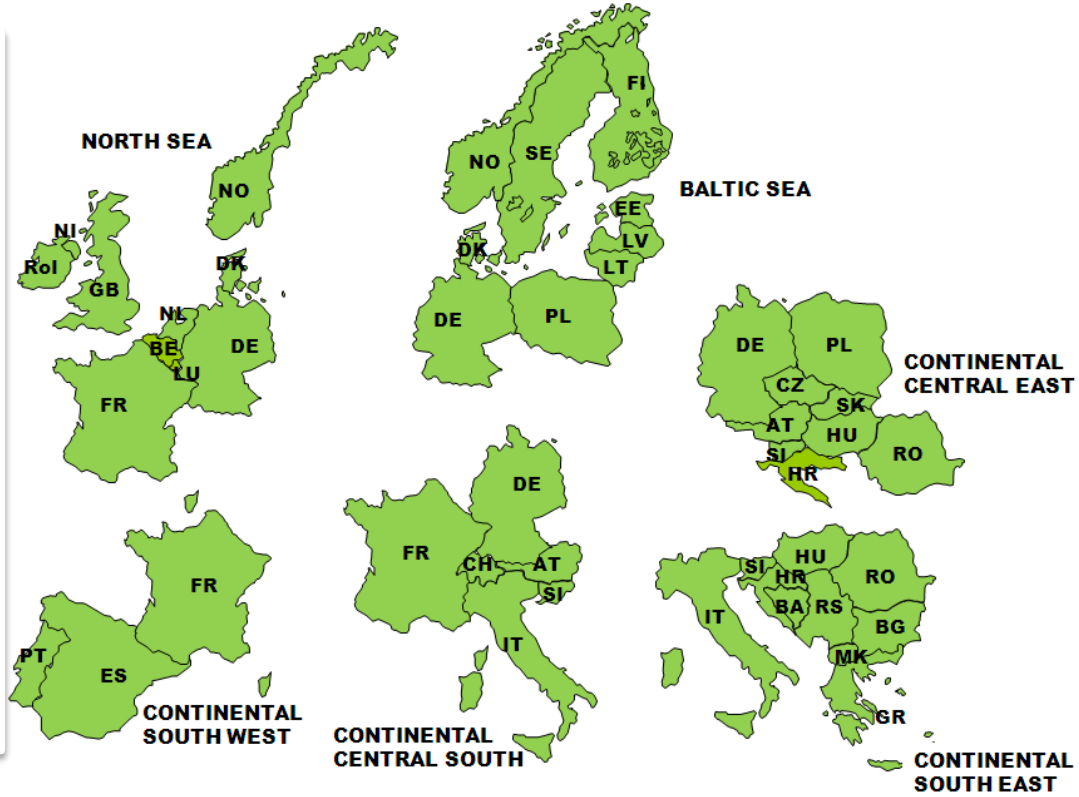
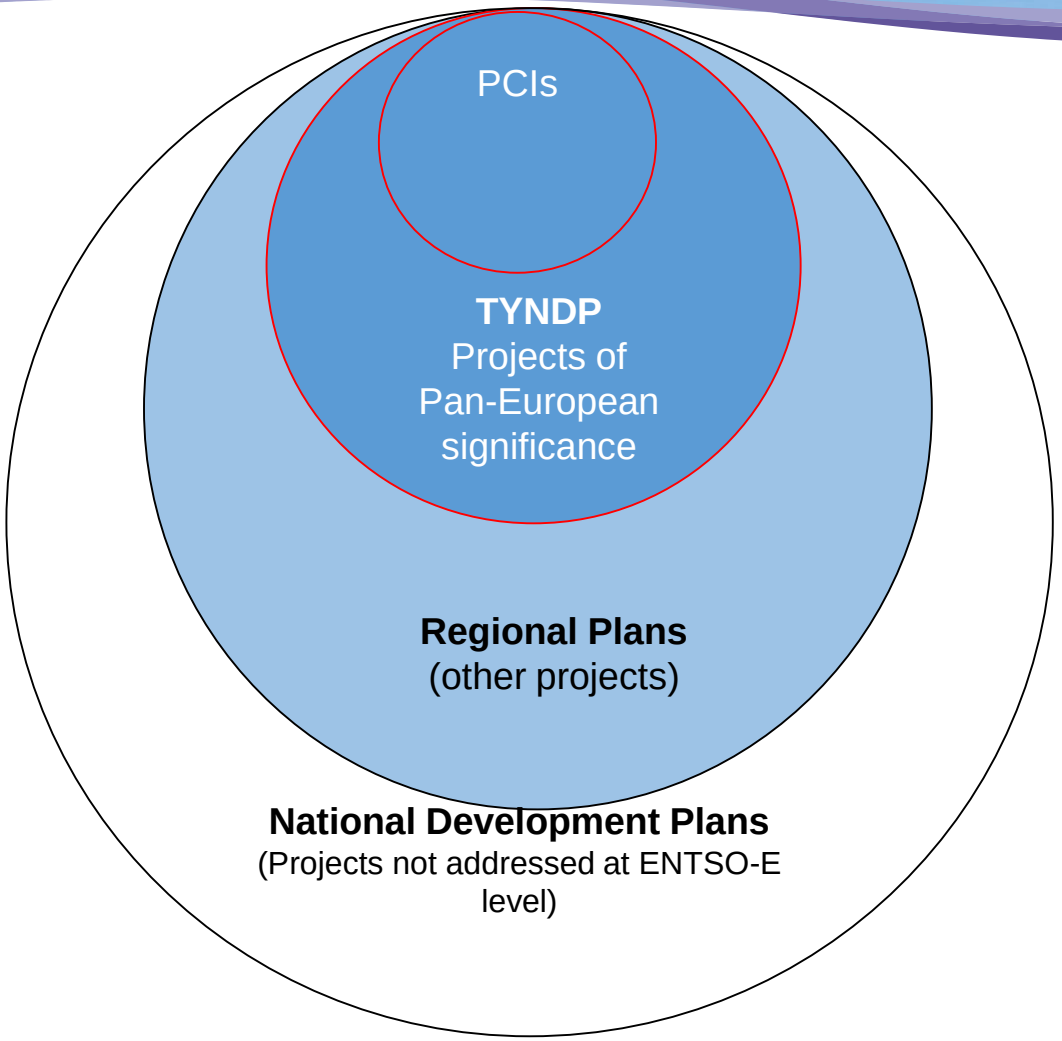
TYNDP 2014 package: 8 reports

- Ten-Year Network Development Plan
- Scenario Outlook and Adequacy Report
- 6 Regional Investment Plans



What cover the projects of Pan-European significance?



Definition of Projects of Pan-European Significance

- Meeting the EU energy targets: RES, SoS, IEM
- Voltage & capacity thresholds

From TSOs & 3rd parties

- Non-discriminatory procedure

Basis for further selection of Projects of Common interest

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Regulation (EU)347/2013 - main benefits

1. Define the PCI list

2. Speed-up the permitting procedure
   - 3 ½ years + 9 month if necessary

3. Improve the regulatory framework: New CBA methodology which will be used to:
   - Assess TYDNP projects(including the PCI projects)
   - Base for the CBCA– only in the case of disagreement between the parties
   - Be the base for the incentives calculation

4. Financing of some of the PCIs

Main impact on the current TYNDP

1. Inclusion of the 3rd party projects in the TYNDP
   - The new procedure for including 3rd party projects in the TYNDP

2. Inclusion of storage in the TYNDP – starting with TYNDP 2014
   - The storage projects shall be assessed starting with TYNDP 2014

3. New CBA methodology – applicable starting with TYNDP 2016
   - The final version submitted to the EC on 16 November 2013

PCI process

ENTSO- E	Project promoters	NRAs *Electricity*	EC Regional Groups	ACER	European Commission
• Prepare TYNDP for electricity	• Submit projects for EC • Criteria • CBA	• Check application of criteria • Cross-border relevance	• Evaluate projects • Rank • Adopt regional lists	• Opinion • Cross-regional consistency	• Adopt Union-wide list of projects of common interest (no ranking)

General criteria

Priority corridor implementation

Economic viability

Crosses border or has cross-border impact

Specific criteria

Market integration

Security of supply

Sustainability

→ Cost-benefit analysis

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Four advantages of being in the TYNDP

1. Be part of the pan-European relevant projects list

2. Increased visibility of the project at European and regional level

3. Eligible for the PCI label application:
    1. Short permitting process
    2. Financial instruments and possible grants for studies and work

4. Assessed using the common pan-EU CBA methodology

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TYNDP – from the first plan to today

TYNDP 2010

-**ENTSO-E proactively publishes the pilot TYNDP**

- **Bottom-up approach**

- **2020 scenarios**

- No 3rd party projects incorporated

- ENTSO-E significant effort to create and run the TYNDP process with all its 41 members

TYNDP 2012

- First official TYNDP package

- **Bottom-up and top down approach**

- 2020 scenarios

- **First call for the inclusion of the 3rd party projects(transmission) in the TYNDP**

- **First assessment of the projects using the CBA methodology**

- Supports the discussions on the new energy infrastructure legislation

TYNDP 2014

- Second official TYNDP package

- Bottom-up and top down approach

- **2030 scenarios**

- **Second & Third call + new procedure for the inclusion of 3rd party projects(transmission and storage) in the TYNDP**

- **Improved CBA methodology**

- **Sole base for the 2015 PCI list**

- **Intermediate update of the TYNDP 2012 table of projects**

- **Creation of the Long-Term Network Development Stakeholder Group**

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TYNDP 2014 stakeholder interaction

- **Long Term Development Stakeholder group**
- **Workshops/consultations:**
  - 13 stakeholder workshops
    - 6 of which at the regional level
  - 6 consultations/request for input
    - One to follow: TYNDP package consultation – 15 July- 15 Sept 2014

- **The Workshops tackled the following topics:**
  - 2030 visions
  - Cost Benefit Analysis Methodology
  - 3rd party projects procedure for inclusion in the TYNDP 2014
  - TYDNP general process

Long Term Development Stakeholder group aim

- Enhance communication between ENTSO-E and stakeholders in order to improve the quality and robustness of the development plan (TYNDP) and related issues;

- Contribute to more productive information exchanges and the creation of a shared understanding of different views on relevant development/ research/assessment topics; and

- Facilitate greater stakeholder involvement in the TYNDP process, and enable the stakeholders to play an active role in the TYNDP deliverables.

- Increase acceptability of ENTSO-E development plans (TYNDP)

Long Term Development Stakeholder group

Members:

- Generating companies, distribution companies, traders
- Consumers representative NGO
- Environmental Non-Governmental Organizations
- Electrical equipment manufacturers, suppliers
- Local authorities
- Trade Unions

ENTSO-E web

Date	Meeting	Documents
27/11/13	5th Stakeholder group meeting	Materials Minutes
30/09/13	4th Stakeholder group meeting	Materials Minutes
27/05/13	3rd Stakeholder group meeting	Materials Minutes
27/02/13	2nd Stakeholder group meeting	Materials Minutes
12/11/12	1st Kick-off meeting of the stakeholder group	Materials Minutes

Conclusions

1. **TYNDP**: **the most comprehensive and up-to-date European-wide reference for the transmission network development**
   - shows the consequences of contrasted options regarding European energy policies - the four 2030 scenarios
2. **TYNDP: key for decisional process at regional and European levels;**
3. **TYNDP: sole bases for the Projects of Common Interest (PCIs) selection**
4. **TYNDP improvement : reflection of the increased stakeholder involvement**

Back-up

PCI definition as mentioned in the regulation 347/2013

Annex IV - **RULES AND INDICATORS CONCERNING CRITERIA FOR PROJECTS OF COMMON INTEREST**

- (1) A project with significant cross-border impact is a project on the territory of a Member State, which fulfils the following conditions:
- (a) for electricity transmission, the project increases the grid transfer capacity, or the capacity available for commercial flows, at the border of that Member State with one or several other Member States, or at any other relevant cross-section of the same transmission corridor having the effect of increasing this cross-border grid transfer capacity, by at least 500 Megawatt compared to the situation without commissioning of the project;
- (b) for electricity storage, the project provides at least 225 MW installed capacity and has a storage capacity that allows a net annual electricity generation of 250 Gigawatt-hours/year;

Projects of European significance – Definitions

A *Project of European significance* is…

- … a set of EHV assets (with at least one part in Europe);
- … all contributing to a same grid transfer capability increase across a grid boundary, valuated in MW;
- … matching the following thresholds:
  - main equipment > 220 kV for OHL AC and > 150 kV else
  - Grid Transfer Capability Increase either
    - enabling > 500 MW of additional NTC; or
    - enabling or securing output of > 1 GW/1000 km² of generation (new and/or existing); or
    - securing for > 10-year load growth for an area > 3 TWh/yr.

EC Reg. 2010/617 on notification of infrastructures

EC 2009/72