

ENTSO-E's Ten Year Network Development Plan

Silvia Ibba

ENTSO-E System Development Advisor
Regional Group CSE Stakeholder Workshop
Zagreb, 27 March 2014

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

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

ENTSO-E key activities



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?

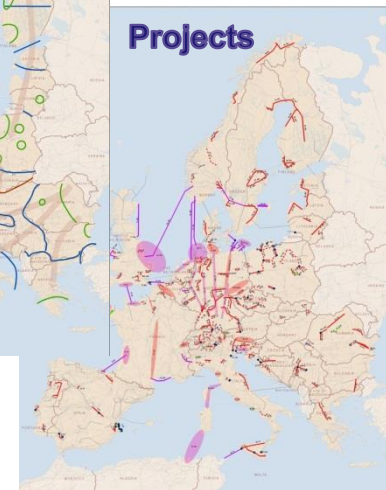
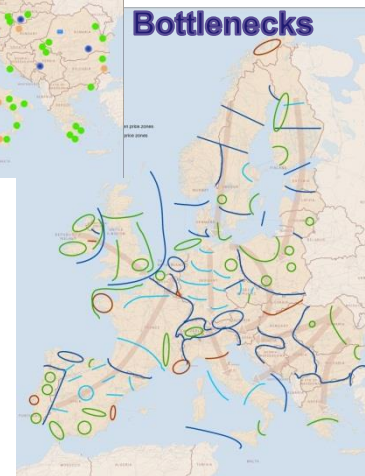
Regulation (EC) 714/2009 – “In order to **ensure greater transparency** regarding the entire electricity transmission network in the [Union], the ENTSO for Electricity should draw up, publish and regularly update a **non-binding [Union]-wide ten-year network development plan**”

Transparency

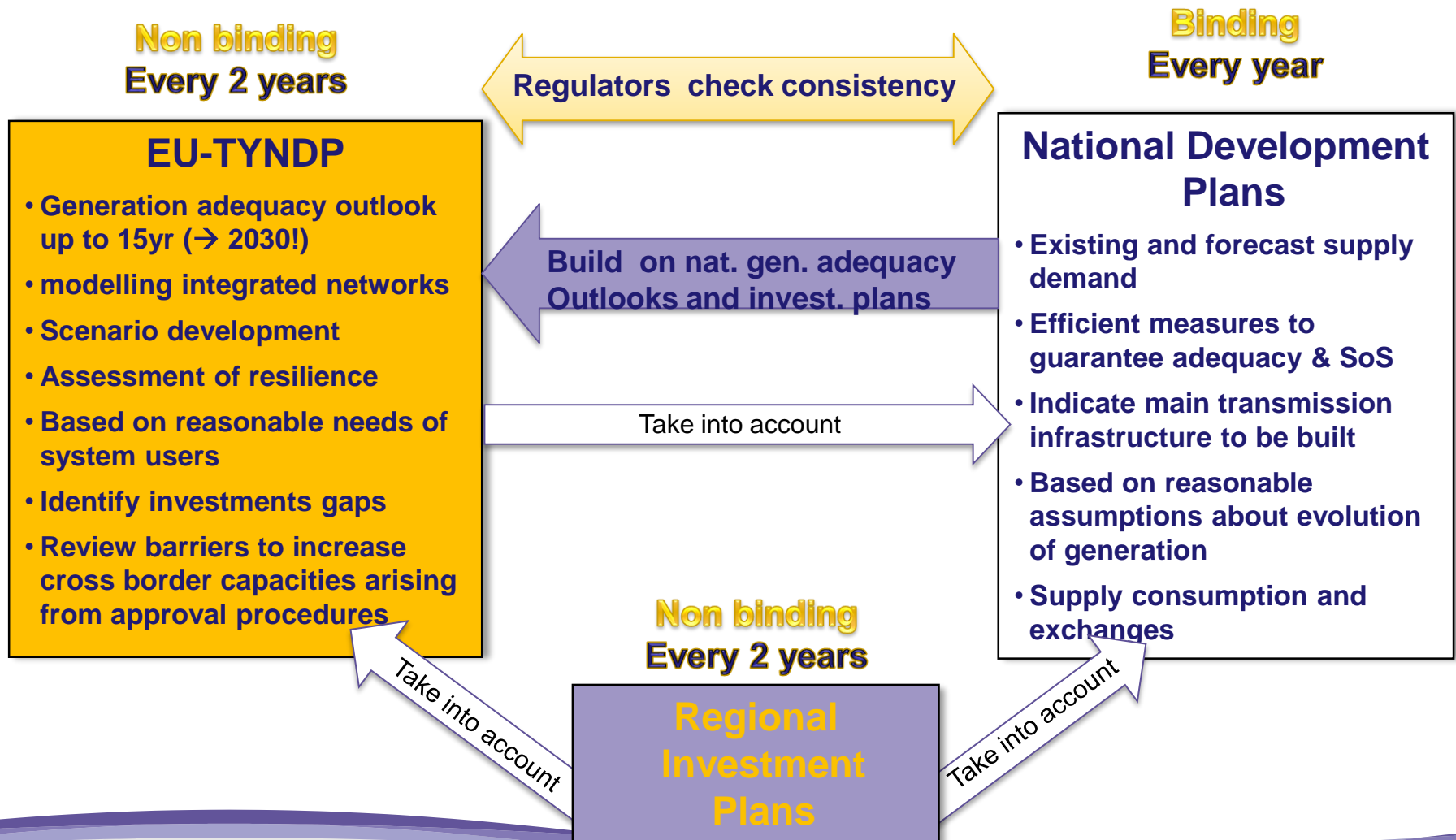
TSO cooperation platform

Stakeholder involvement

Inform EU policy and investment decisions

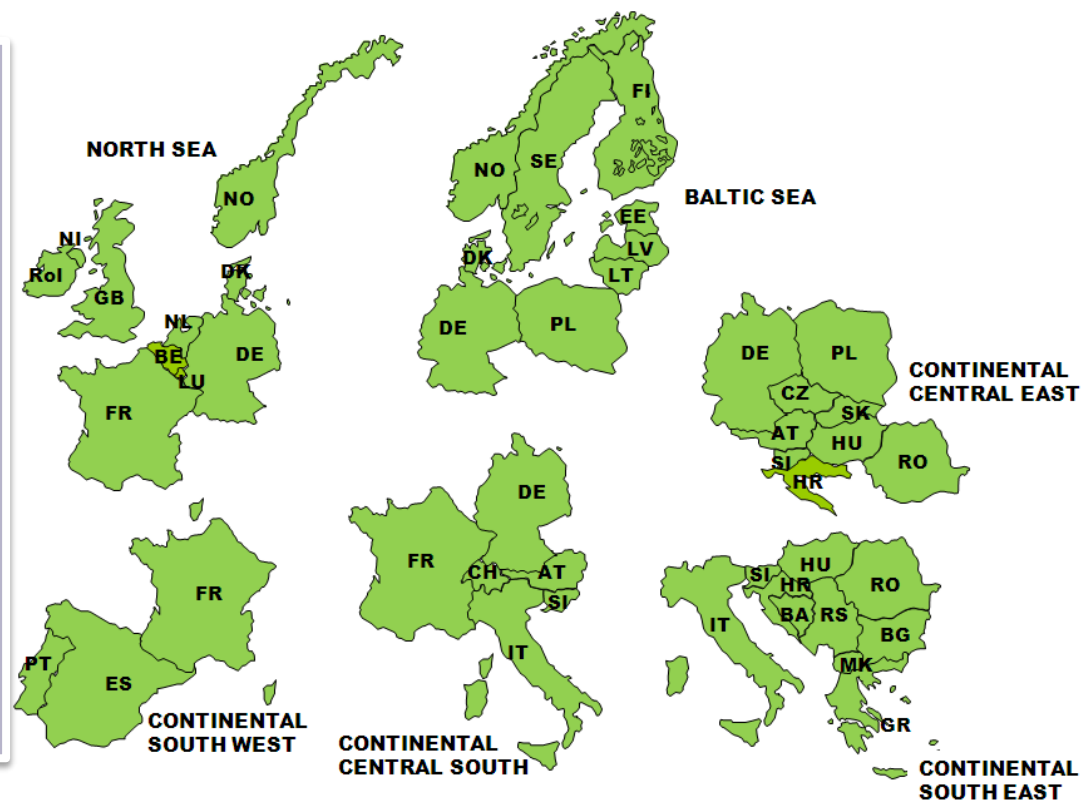


The 3rd Package defines the TYNDP

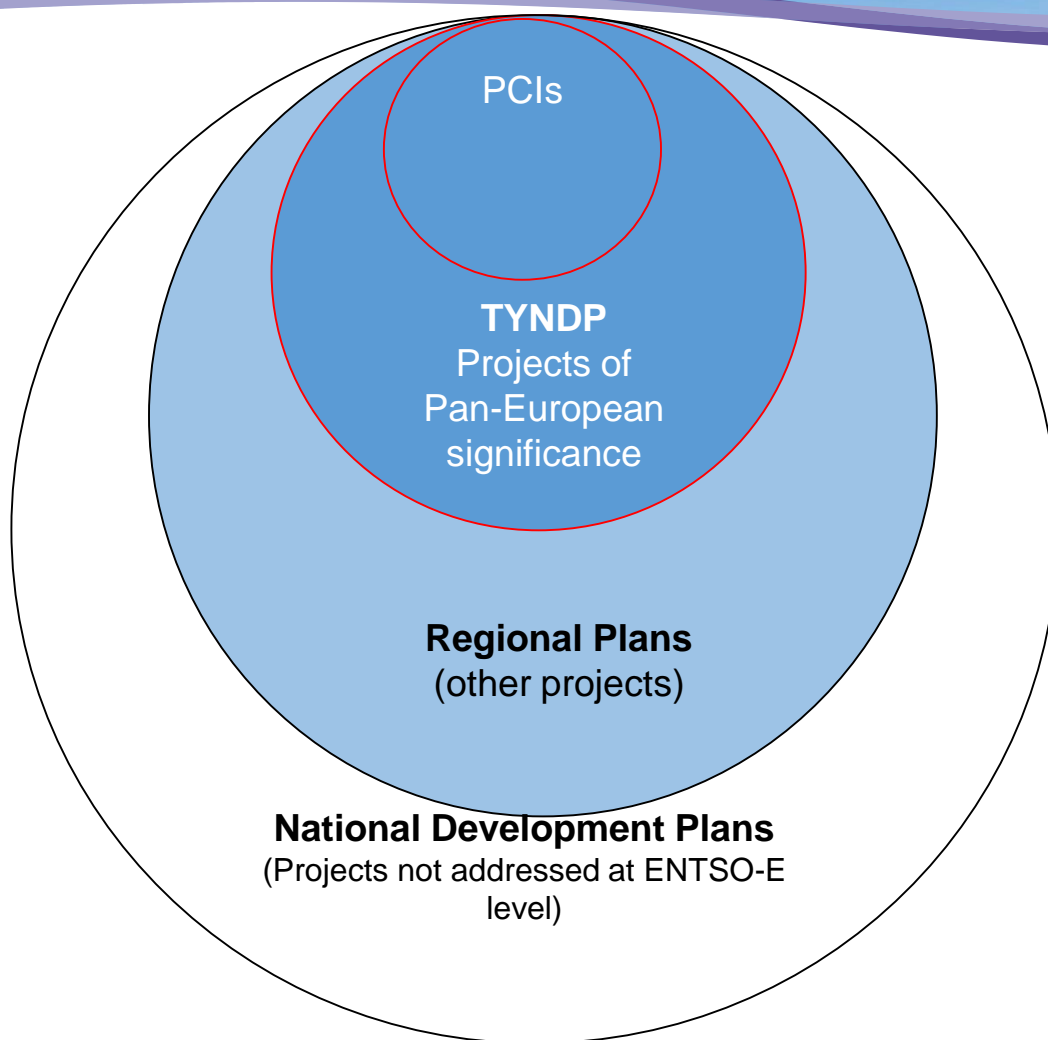


TYNDP 2014 package: 8 reports

- 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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Priority Corridors and Common Interest Regime

1. Speed-up the permitting procedure
 - 3 ½ years + 9 month if necessary
2. Improve the Regulatory framework by CBA methodology which will be used to:
 - Assess TYDNP projects(including the PCI projects)
 - Possible basis for CBCA (in case of disagreements)
 - Basis for projects incentives calculation
3. EC Financing support of some PCIs

Main impact on the current TYNDP



1. Inclusion of the 3rd party projects in the TYNDP
 - 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. Wide Union 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

→ By wide 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. Receive Financial instruments and possible grants for studies and works
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**

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

Conclusions



1. TYNDP: the **most comprehensive and up-to-date European-wide reference** for the transmission network development
2. TYNDP: **key for decisional-making process** at regional and European levels;
3. TYNDP: **sole bases for the Projects of Common Interest (PCIs) selection**
4. **TYNDP improvements:** reflection of the increased stakeholder involvement

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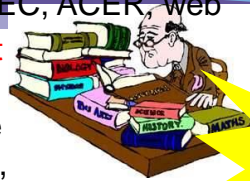
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Back-up

By (6 months),
ENTSO-E submits
CBA

methodology to
EC, ACER, web



Extensive
consultation

**SHALL BE
APPLIED**

TYNDP

*In line
with*

PCI selection process (ANNEX
III.2)
Project promoter submits
projects

• **Assessment** of
contribution to priority

corridors

Analysis on the
fulfillment of the **criteria**

• (mature projects) project
specific CBA in

accordance with and
based on



check:

• Consistent application of the
criteria

• Consistent application of
CBA
Cross-border relevance

Draft regional
PCI

Final regional
PCI

ECRG
ranks
ACER
Agency for the Cooperation
of Energy Regulators

opinion

ECRG
defines

*Included
with the
highest
priority*

Union-wide PCI

Adopts via
delegated
act



19 May 2014

22

- Including storage
- **Network & market modeling**
- Resubmit with the opinions of ACER, EC and MS – approved by EC
- ACER may request improvements regularly
- By (2 years) ACER provides unit investment cost indicators
- By end 2016 consistent and interlinked gas and electricity market and network model

(ANNEX V)
**Be based
on** a common
input data set
n+5; n+10;
n+15; n+20

Extensive
consultation

**SHALL BE
APPLIED**

- Demand
- generation (biomass, geothermal, hydro, gas, nuclear, oil, solid fuels, wind, solar photovoltaic, CS, other RES)
- **geographical location**
- fuel prices (including biomass, coal, gas and oil)
- carbon dioxide prices)
- the **transmission** and, if relevant, the distribution network, (CCS, **storage** and **transmission** projects)

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

