

## Continental South West Regional Workshop with Stakeholders on ENTSO-E Ten-Year Network Development Plan and the Regional Investment Plans in 2014

Date: 25 March 2014 – Lisbon REN premises: Rua Cidade de Goa, 4 - Sacavém Time: 09:00 – 12:45

# **DRAFT MEETING MINUTES**

### Agenda

No	Subject		Lead
1.	Registration and welcome coffee	09:00	
2.	Welcome	09:15	Maria José Clara, REN General Manager João Ricardo ENTSO-E System Development Committee Chairman António Pitarma ENTSO-E Regional Group Continental South West Convener
3.	<ul> <li>ENTSO-E TYNDP process</li> <li>improvements and forward steps</li> <li>new role of TYNDP under the Reg. (EU) 347/2013 and PCIs process</li> </ul>	09:25	Irina Minciuna ENTSO-E System Development Adviser
4.	Third party projects in the TYNDP 2014 (regional focus)	09:45	Irina Minciuna ENTSO-E System Development Adviser
5.	TYNDP assessment: focus on CBA Methodology	09:55	Nuno Martins ENTSO-E Drafting Team Planning Standards Member
6.	TYNDP 2014 process & scenarios (2030 Visions Approach) - Scenario development status	10:15	Ricardo Pereira ENTSO-E Regional Group Continental South West Member
7.	Discussion	10:35	All
8.	Coffee break	10:45	



9.	TYNDP 2014 process: regional focus	11:00	Pedro Carola ENTSO-E Regional Group Continental South West Member
10.	Market and Network Studies: regional focus	11:15	Geraldine Adam ENTSO-E Regional Group Continental South West Member Claire Fourment ENTSO-E Regional Group Continental South West Member
11.	Regional project assessment provisional results for V1 and V4	11:45	Patricia Labra ENTSO-E Regional Group Continental South West Member
12.	Discussion	12:15	ALL
13.	Conclusions	12:35	Maria José Clara General Manager João Ricardo ENTSO-E System Development Committee Chairman António Pitarma ENTSO-E Regional Group Continental South West Convener

#### 1. ENTSO-E TYNDP

- improvements and forward steps
- new role of TYNDP under the Reg. (EU) 347/2013 and PCIs process

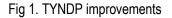
ENTSO-E has presented the TYNDP role under the of two EU regulation on infrastructure: 714/2009 (part of the 3<sup>rd</sup> Internal Energy Package) and the 347/2013 which entered into force in May last year. Under these legislations the role of the TYNDP is the following:

- ensure greater transparency regarding the entire electricity transmission network;
- form the sole basis for the Projects of Common Interest.



Related to the TYNDP development over time the graph below is summarising the main improvements:

<ul> <li>-ENTSO-E proactively publishes the pilot TYNDP</li> <li>- Bottom-up approach</li> <li>- 2020 scenarios</li> <li>- No 3rd party projects incorporated</li> <li>- ENTSO-E significant effort to create and run the TYNDP process with all its 41 members</li> <li>- Supports the discussions on the new energy infrastructure legislation</li> <li>- Supports the discussions on the new energy infrastructure legislation</li> <li>- Supports the discussions on the new energy infrastructure legislation</li> <li>- Supports the discussions on the new energy infrastructure legislation</li> <li>- Creation of the Long-Term Network Development</li> <li>- Creation of the Long-Term</li> </ul>	TYNDP 2010	TYNDP 2012	TYNDP 2014
	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	package - Bottom-up and top down approach - 2020 scenarios - First call for the inclusion of the 3 <sup>rd</sup> party projects( transmission) in the TYNDP - First assessment of the projects using the CBA methodology - Supports the discussions on the new energy infrastructure	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



For more detail information please see the associated presentation.

### 2. Third party projects in the TYNDP 2014 (regional focus)

The inclusion of the third party projects in the 2014 version fo the TYNDP is based on the third party procedure which ENTSO-E published in January 2013 and further updated (in the light of the new (EU) 347/2013 regulation) in September the same year. The update in the procedure has been followed by 2 open calls for projects. As an outcome, ENTSO-E has accepted for further assessment 24 third party projects (transmisison and storage) out of which 19 are PCIs. The CSW region incorporates only one 3<sup>rd</sup> party transmision project connecting ES-FR-UK.

For more detail information please see the associated presentation.

#### 3. TYNDP assessment: focus on CBA Methodology

The Regulation (EU) 347/2013 mandates ENTSO-E to draft and publish a Cost Benefit Analysis (CBA) methodology by November 2013 followed by ACER, EC and member states opinion. The target is having the official CBA methodology publication by September 2014.



ENTSO-E's approach is to adopt a combined cost-benefit and multi-criteria framework, allowing for the best available information both for the public (TYNDP) and PCI decision-makers, on the full range of indicators required by the Regulation 347/2013, while monetising as far as possible.

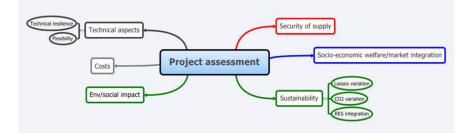


Fig 2. Main categories of the project assessment methodology (Cost Benefit Analysis indicators)

The main goals of this methodology, as stated in Regulation 347/2013, are the following:

- System wide cost benefit analysis (CBA), allowing an assessment of all TYNDP projects in a homogenous way;
- Supporting Selection Projects of common interest (PCIs);
- CBA results as one of possible input for Cross Border Cost Allocation (CBCA).

For more detail information please see the associated presentation.

### 4. TYNDP 2014 process & scenarios (2030 Visions Approach)- Scenario development status

The TYNDP is a two year process with activities at the European and regional level. The plan will be put forward for public consultation in July 2014 until September 2014 with the final version expected by December 2014.



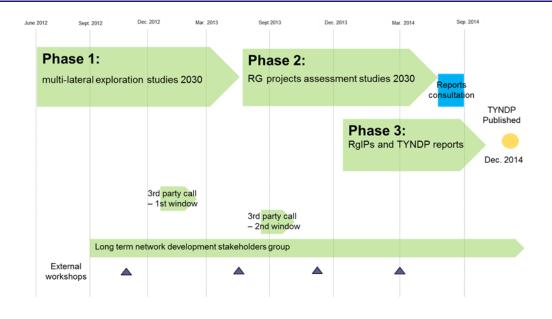


Fig 3. TYNDP process

The TYNDP 2014 tackles the 2030 by using four contrasting scenarios, as presented below:

#### On track for energy roadmap 2050

Vision 3: "Green Transition"	Vision 4: "Green Revolution"
<ul> <li>Favourable economic and financial conditions</li> <li>Reinforced national energy politics</li> <li>Parallel national R&amp;D research schemes</li> <li>High CO₂ prices and low primary energy prices (IEA – WEO 2010 450 scenario)</li> </ul>	<ul> <li>Favourable economic and financial conditions</li> <li>European energy policy</li> <li>European R&amp;D research scheme</li> <li>High CO<sub>2</sub> prices and low primary energy prices (IEA – WEO 2010 450 scenario)</li> </ul>
ose European framework	A strong European framewor
Vision 1: "Slow Progress"	Vision 2: "Money Rules"
<ul> <li>Less favourable economic and financial conditions</li> <li>Reinforced national energy politics</li> <li>Parallel national R&amp;D research schemes</li> <li>Low CO<sub>2</sub> prices and high primary energy prices (IEA – WEO 2010 current policies scenario)</li> </ul>	<ul> <li>Less favourable economic and financial conditions</li> <li>European energy policy</li> <li>European R&amp;D research scheme</li> <li>Low CO<sub>2</sub> prices and high primary energy prices (IEA – WEO 2010 current policies scenario)</li> </ul>

Delay of Energy Roadmap 2050

Fig 4. TYNDP 2030 vision



The role of the scenarios is to address uncertainties and to create the frameworks based on which the pan-European and regional market and network studies are performed. By having contrasting scenarios (going from 40 to 60% RES integration) ENTSO-E can assess in its TYNDP the proposed portfolio of projects and detect the possible gaps in the future grid infrastructure.

For more information on scenarios please see the associated presentation.

#### 5. TYNDP 2014 process: regional focus

ENTSO-E has presented the role of the RGs within the TYNDP process and the main tasks associated to it as follows:

- Perform regional market and network studies;
- Identify the needs and necessary network reinforcements considering the four visions in analysis;
- Evaluate all the TYNDP projects (CBA assessment through a multi-criteria analysis of benefits and costs), including TSOs and Third party projects
- Adapt the Pan-EU studies according the regional specificities (e.g.: temperature sensitivity, hydro conditions, wind and solar profiles, pumping modelling, etc.)

For more insight please related to the associated presentation.

#### 6. Market and Network Studies: regional focus

In order to assess the TYNDP projects (including the PCIs), ENTSO-E's regional groups perform market and network studies based on a common set of data on which are added the regional specificities. Within this presentation ENTSO-E underlined the input data sets and the preliminary output of the regional CSW market and network studies of the vision 1 (slow progress) and vision 4 (green revolution).

For concrete details see the associate presentation.

#### 7. Regional project assessment - provisional results for V1 and V4

ENTSO-E has presented four examples of pan European relevant projects form the CSW regional and the associated preliminary CBA assessment. Considering the proposed infrastructure on the 2030 horizon the congestions between the countries belonging to this region are generally mitigated expect the congestions between ES and FR which in both studied visions (1 and 4) are far below the 10% threshold (as requested by the EC).

For concrete details see the associate presentation.



#### 8. Summary of the discussion within the workshop

Q: Is the CBA approved by other entities aside of ENTSO-E?

A: The CBA methodology is drafted by ENTSO-E and delivered (15 November 2013) to ACER, EC and MS for comments and approval. The final version (approved by the EC, ACER and MSs) is to be officially published in September 2014.

Q: Can a decision on the infrastructure be taken without a prior prioritisation of the projects (CBA one figure)?

A: Considering that different regions have different targets and concerns (e.g. integration of RES, SOS, etc.) having just one figure for the CBA leads to decisional errors. Additionally, ENTSO-E role is not to prioritise the European infrastructure but to present all the European relevant projects. The prioritization is based on the regional targets and is done e.g. for the PCI process in the EC regional groups.

Q: What are the next CBA improvements and the time associated to it considering also the TYNDP process?

A: The CBA further improvements (as presented in the last slide of the presentation) are to be considered for the future TYNDPs (after 2014)

Q: Is the CBA applicable on the TYNDP plan or at the project level?

A: The ENTSO-E CBA methodology is applicable at the project level.

Q: Considering the multi-criteria approach used in the ENTSO-E CBA methodology, a multi-criteria decision methodology would be necessary in order to accompany the decisional process at the EC regional level.

A: Considering the different regional targets (and therefore different weighting system of the CBA indicators) the creation of a common multi-criteria decision methodology does not improve the decisional process. According to the regulation (EU) 347/2013, this responsibility is the attributed to the EC regional groups.

Q: Who has the responsibility of the data incorporated in the TYNDP scenarios?

A: The responsibility of the data used in the TYNDP scenarios fall on the TSOs member of the ENTSO-E.

Q: Who decides on the vision 4 data?

A: An expert ENTSOE team established guidelines and generation mix in vision 4 (as a top-down scenario) in order to fulfil a proper trajectory to meet the 2050 targets, and considered stakeholders inputs obtained from the public consultation in scenarios. Additionally, V4 generation mix was based on V3, which included data from TSOs as a bottom-up scenario.



From vision 3 to V4, the main changes are increase of values of solar and wind and pumping, and reduction of thermal generation with low functioning hours.

Q: Do you consider the abolition of the support mechanisms for RES and the capacity remuneration mechanisms in your assumptions?

A: The studies performed under the TYNDP framework consider a perfect market. Nevertheless, these constrains are considered by the TSO when delivering the data for the pan – European market data base, which is used by all the regional groups in their studies.

#### Q: Can CBA be used for electricity storage projects?

A: Yes, the Regulation (EU) 347/2013 requires that CBA methodology for electricity is applicable for transmission and storage projects (PCIs) alike. A storage PCI, as defined in the regulation is a candidate projects >225MW with a net annual generation of 250GWh. Appendix 6 of CBA Methodology document is devoted to this topic. Nevertheless, ENTSO-E understands that further improvements are required to the section on Storage in the CBA Methodology, especially concerning ancillary services and avoided generation costs. ENTSO-E is closely cooperating with the main stakeholders involved in the field of Storage. ENTSO-E does not expect that the improvements from this cooperation will be finalised by 2014, thus CBA Methodology changes will be relevant for TYNDP 2016 at the earliest.

#### Q: What type of 3rd party storage do you consider for inclusion in the TYNDP?

A: Any type of storage project as long as it satisfies the technical and legal conditions as presented in the regulation (EU) 347/2013 and the ENSTO-E procedure for the inclusion of the 3<sup>rd</sup> party projects in the TYNDP 2014. RG CSW does not include any 3<sup>rd</sup> party storage project since no promoter submitted any project affecting this region. However, according to the TSOs input, the 2030 scenarios consider a high level of pumping storage power plants in the region.

#### Q: Very few projects participate in the SOS increase - why? How is it calculated?

A: One of the pan-European relevant project criteria is securing load growth for at least 10 years for an area representing consumption greater than 3 TWh / year therefore many of the projects that may secure the supply at the local level are not tagged so when looking at the pan EU level. Additionally, when we are looking at the SOS indicator, this indicator is calculated using the market (LOLE) or network studies (ENS) done at the regional level.

Q: Concerning the HVDC infrastructure do you consider the amount of reserve necessary in case of fault?

A: A fault in a DC line is an operational issue that can be mitigated by redistributing the energy on the available AC meshed infrastructure (e.g. for the particular case of the FR-ES HVDC projects). It does not require a predefined reserve for it. Theoretically in case an island system, connected only by a DC infrastructure to the neighbouring system, suffers a fault



on the interconnection then we are touching the security of supply of that specific area and a reserve capacity shall be foreseen for such situations.

Q: The projects proposed for the vision 4 do not seem to tackle all the future congestions (as underlined in the presented material). Is the TYDNP proposing new infrastructure for these future bottlenecks?

A: Aside from assessing the portfolio of future pan-European projects TYNDP supports, through its process, the process allows the identification of the additional future needs (depending on the studies vision/scenario). This information signals, to the impacted TSOs, the need of a deeper look at the possible new infrastructure needs in the area.

#### Notes:

All the material presented in the ENTSO-E stakeholders' workshops on the TYNDP can be consulted on the ENTSO-E website at: <u>https://www.entsoe.eu/major-projects/ten-year-network-development-plan/tyndp-2014/stakeholder-interaction/</u>

The TYNDP FAQ can be accessed here: <u>https://www.entsoe.eu/major-projects/ten-year-network-development-plan/tyndp-faqs/</u>

The CBA methodology can be accessed at: <u>https://www.entsoe.eu/major-projects/ten-year-network-development-plan/cba-methodology/</u>