

# Minutes of the Baltic Sea Region Workshop with Stakeholders on ENTSO-E Ten-Year Network Development Plan and the Regional Investment Plans in 2014

Date: 18<sup>th</sup> March 2014

Place: **Radisson Blu Arlanda Airport Conference, located between Terminals 4 and 5 at the airport**

10:00 – 15:15

## List of participants

First Name	Last Name	Company	Country
Dmitry	Andrushin	JSC 'Rusatom Overseas'	Russia
Olivier	Angoulevant	Prysmian Group	France
Ingrid	Arus	Elering	Estonia
Magnus	Danielsson	Svenska kraftnät / ENTSO-E RG BS	Sweden
Marta	del Castillo García	SERCOBE	Spain
Christian	Eriksen	Pöyry Management Consulting	Finland
Henrik	Gommesen	Energitilsynet-Danish Energy Regulatory Authority	Denmark
Kristian	Gustafsson	Vattenfall	Sweden
Ingrid E.	Haukeli	Norwegian Water Resource and Energy Directorate	Norway
Petteri	Haveri	Finnish Energy Industries	Finland
Isabel	Hidalgo Menéndez	SERCOBE	Spain
Knut Styve	Hornnes	Statnett / ENTSO-E RG BS	Norway
Antanas	Jankauskas	Litgrid AB / ENTSO-E RG BS	Lithuania
Olof	Klingvall	Svenska kraftnät	Sweden
Mart	Landsberg	Elering / ENTSO-E RG BS	Estonia
Andre	Lindvest	Energiasalv OÜ	Estonia
Tiina	Maldre	Estonian Competition Authority	Estonia
Dangiras	Mikalajunas	JSC "INTER RAO UES" Representative office	Belgium
Caroline	Ostby	Statkraft Energi AS	Norway
Stein	Øvstebø	Norsk Hydro ASA	Norway
Arne Egil	Pettersen	Statnett	Norway
Morten	Pindstrup	Energinet.DK / ENTSO-E RG BS	Denmark
Kristin	Rasdal	Ministry of Petroleum and Energy	Norway
Marja	Rasi-Kurronen	RAO Nordic	Finland
Habib	Sabbagh	Vattenfall	Sweden
Folke	Sjöbohm	Svensk Energi - Swedenergy	Sweden
Marcel	Steinbach	German Energy Association - BDEW	Germany
Iris	Stempfle	EnBW Erneuerbare und Konventionelle Erzeugung	Germany
Andrea	Stengel	EnergyNorway	Norway
Tomas	Söderlund	Svenska Kraftnat	Sweden
Andrus	Zavadskis	4 Energia	Estonia
Ansis	Žbanovs	AS AUGSTSPRIEGUMA TĪKLS / ENTSO-E RG BS	Latvia
Oleg	Tsernobrovkin	Elering / ENTSO-E RG BS	Estonia
Caroline	Törnqvist	Swedish Energy Markets Inspectorate (Regulator)	Sweden
Maarit	Uusitalo	Fingrid / ENTSO-E RG BS	Finland

First Name	Last Name	Company	Country
Liutauras	Varanavičius	Litgrid AB / ENTSO-E RG BS	Lithuania
Grete	Westerberg	Statnett / ENTSO-E RG BS	Norway
Pekka	Vile	Fortum Power and Heat	Finland
Mette	Vingaard	Danish Energy Agency	Denmark
Mattias	Wondollek	Svensk Vindenergi	Sweden

#### ENTSO-E Secretariat

Geoffrey	Feasey	ENTSO-E	
Mihai	Paun	ENTSO-E	

#### Excused

Andrzej	Tymorek	PSE / ENTSO-E RG BS	Poland
Christian	Paris	50Herts / ENTSO-E RG BS	Germany

All meeting documents and presentations are located on the following web site:  
<https://www.entsoe.eu/major-projects/ten-year-network-development-plan/tyndp-2014/stakeholder-interaction/>

## 1. Welcome and Introduction: ENTSO-E TYNDP process

Mart Landsberg from Estonian TSO (Elering AS) as a convener of RGSB has opened a meeting and introduced all Stakeholders with all topics of today's meeting, main impact of the TYNDP report and expected outcomes of this meeting. He has also described overview of TYNDP process, evolution from the first TYNDP plan till today and explained how RGSB has managed Stakeholders inputs from previous Stakeholders meeting which held in Copenhagen in 2013. RGSB has tried to take into account all Stakeholders inputs and improved preparation of TYNDP 2014. He pointed out the increasing importance of the TYNDP as a guide for decision makers when considering investment in electricity infrastructure over the next decade and beyond, it is critical that stakeholders at regional and national levels are well informed and consulted on the TYNDP process and outcomes. Conclusions of presentation were the TYNDP is most comprehensive and up-to-date European –wide reference for transmission network development, the TYNDP supports the decision making process at regional and European level as well as TYNDP is continuous improving process with the selection of PCIs.

## 2. TYNDP assessment: focus on CBA Methodology

Arne Egil Pettersen from Norway TSO (Statnett) as a representative of Drafting Team Cost Benefit Analyses (CBA) has presented Cost CBA methodology for electricity projects. The presentation includes general overview of CBA and its necessity, description of CBA indicators and the assessment for TYNDP 2014. Close to the end of presentation Arne highlighted that CBA quality depends mainly on quality of input assumptions.

#### The question from audience

Does RGSB use more sensitivities to evaluate indicators and check consistency between indicators?

#### The answer

Yes, RGSB does but we are not ready to present the results right now.

#### The question from audience

What is the view of the flexibility of change to the CBA methodology and what is the most important aspects to use as input? What if something else than e.g. Security of Supply becomes important, can the CBA then be changed?

#### The answer

We can do sensitivities and design more scenarios if this becomes relevant at some point.



The question from audience

Could you have used the average between TOOT and PINT?

The answer

It could be considered in the next TYNDP 2016 process. The proposal will be addressed.

### 3. TYNDP 2014 process & scenarios (2030 Vision Approach)

Grete Westerberg from Norway TSO (Statnett) as a member of RGSB has presented the TYNDP process in overall and scenarios/visions building approach for 2030. In the beginning of presentation she introduced with TYNDP 2014 preparation steps and TYNDP time schedule from the start of TYNDP 2014 till the final report. Further the presentation covered description of TYNDP 2030 visions which are very unpredictable and uncertain at this stage as well as she described the construction process of vision for 2030 and market modelling inputs and principles. Looking to the future at the end of presentation she explained a bridge between EU targets on 2030 towards EU targets on 2050.

The question from audience

Is a possibility to get figures behind each vision for particular country?

The answer from RGSB

Some figures can be found in ENTSO-E System Outlook and Adequacy forecast report but detailed input data for each country are not available.

### 4. Market and Network Studies: provisional results: Comparison between Vision 1 “slow progress” and Vision 4 “green revolution”; investment Needs.

Knut Styve Hornnes from Norway TSO (Statnett) as a convenor of RGSB SG SAMM has presented the results from Vision 1 and Vision 4. He pointed out the main drivers for transmission system development and also described modelling issues in details in RGSB. Additionally to countries of RGSB, Czech Republic and Slovakia also are involved in RGSB market modelling due to high impact of power flows from these countries to RGSB countries and loop flows within Continental Europe. Knut has described each assessment indicator of CBA and explained how indicators have been estimated with market model used by RGSB. He presented a map with all projects for TYNDP 2014 and described the assessment levels of projects (TOOT, PINT, TYNDP 2012). Security of Supply indicator is calculated with MAPS probability model and methodology proposed by ENTSO-E and the results give no security of supply issues in any of the two visions. For further details see presentation.

The question from audience

Is it not true that the other regional groups cannot assess the value of flexible demand as they calculate socioeconomic welfare (SEW) as reduction in generation cost?

The answer from RGSB

True!

The questions from audience

1. Is the region in balance?
2. How is the balance between Finland and Russia?

The answers from RGSB

1. The Nordic countries have a surplus that is exported towards central Europe
2. Finland can both import and export from/to Russia. Price dependent in RGSB analyses

The questions from audience

1. What kind of share of generation for Vision 1 and Vision 4 is from solar?
2. What is a balance in RGSB? Is it importer or exporter?

The answers from RGSB

1. RGSB will check, not possible to see from presentation exact figure.
2. The overall picture shows that main energy exporters are Nordic countries and the highest energy deficit is in Germany and Poland.

Oleg Tsernbrovkin from Estonian TSO (Elering) as a convenor of RGS Sugroup Network Development (SG ND) presented the results from network studies and network modelling in RGS. He pointed out concerns regarding Vision 4 that very high flows have been identified between countries and Vision 4 is very extreme Vision for transmission grid planning. This is a challenge for transmission system operators and Vision 4 requires many internal reinforcements which are not evaluated in the TYNDP 2014 directly. Oleg also presented the projects from previous TYNDP (TYNDP 2012), the project candidates explored during Exploratory phase of TYNDP 2014 and 3<sup>rd</sup> party projects which are assessed in a similar manner as other projects. The 3<sup>rd</sup> party projects are pump storage projects which are located in Estonia and Lithuania. To see a detailed picture of network modelling and how overloads are removed, Oleg presented two examples with snapshots, one between Estonia/Latvia and another one between Sweden/Finland (the assessment of 3<sup>rd</sup> interconnection between Latvia and Estonia and 3<sup>rd</sup> AC circuit between Finland and Sweden) where both projects eliminate overloads on borders Latvia/Estonia and Sweden/Finland.

#### The question from audience

*Why does some projects have negative impact on RES integration and CO2 emission?*

#### Answer from RGS:

*Difficult to explain, but sometimes increased capacity gives larger market for generation with higher emission. Slightly negative impact on RES integration can also come from modelling issues, and will be studied and explained in the final report. One of the reasons is a shift between lignite and biomass in Vision 1.*

## 5. Discussion

#### The suggestions and questions from Stakeholders

- 1. It could be beneficial to see more alternative projects instead of presented ones. Discussion about alternative projects, for example between SE and DK an; is RGS planning to evaluate more alternative projects until 2030?*
- 2. Discussion about land restrictions for AC links and these issues are very uncertain for scheduling the commissioning dates for projects.*
- 3. Discussion about consistency regarding the results within RGS and with other RGs.*

#### The answers from RGS

- 1. RGS has assessed more projects in addition to presented ones, but these projects are for internal analyses and can be described only in Regional Investment Plan. We are not exploring specific technical solutions however interesting that might be. The most beneficial projects and solutions have been presented.*
- 2. The information from RGS about sensitivities what we are exploring. The one sensitivity is a delay of projects. What can we expect if delay of projects will be about 30% of all projects? RGS is not ready to present results yet, but preliminary results have shown large impact in SEW.*
- 3. RGS has similar assumptions and reference case used by all RGs.*

Question: *The losses have bigger impact than RES integration and CO2 emission? Can you explain this?*

Answer: *More CO2 when cheap generation (lignite) get access to a larger market. With regard to RES it is strange that some results are negative due to extra interconnection. This can be due to biomass being replaced by lignite in vision 1.*

Question: *What is variant 1 when DK1-SE3?*

Answer: *Variant 2 has been analysed as an alternative.*

Question: *could you show more alternative projects from for example between SE and DK.*

Answer: *We are showing benefits of increased transmission capacity.*

Question: *I assume you have looked into another PL-SE4 connection?*

Answer: *We have included into the reference case the projects we assume are realistic will be build.*

Question: *Will someone want to have a huge transformer on their beach (in the backyard) if CO2 was the main driver? Will wind replace hydro if internal DC lines in Germany doesn't come through?*

Answer: *NIMBY is an growing concern – reduction of CO2 emissions is a political decision and TSOs have important role in this direction, but delays in permitting can have large impact in political targets.*

Question: *Bidding zone configuration: Have you taken that into account?*

Answer: *No, no decisions have been made so we really cant take that into account. Will be taken into account most probably in next TYNDP, but not this one.*

Question: Is there a problem with some countries being split between more regional groups. Consistency between areas is important.

Answer: The reference GTC's are the same, used by all RGs. RGS members Statnett and Energinet.DK are spending time on ensuring consistency between RGS and RGNS.

Question: What if projects are delayed? Have ENTSO-E checked what happens then?

Answer: RGS covering this in sensitivity analyses, but not ready to present results.

Question: How do we look on differences in impact of adding additional projects from Norway.

Answer: New cables out of Norway to UK and Germany are assessed by Regional group North Sea. Consistency is handled by using similar reference case in RGS and RGNS, and exchange of info between groups. The impact of the new interconnectors from Norway is present in the RGS analysis.

Question: Will phase-shifters come on borders to Poland.

Answer: Many parts in studies that needs further discussion, also between different RGs. Cross-section is analysed by ENTSO-E Regional Group CCE.

Mihai Paun from ENTSO-E Secretariat has informed that six Stakeholder Workshops are going on during March and Stakeholders can take the opportunity to check consistency and complementarity between the results of all RGs. We speak about consistency, but there are also differences in the regions, for example NSCOGI in North Sea, nevertheless TYNDP will show consistent results.

Topics emphasized during discussions were related to interest to see several alternatives besides to the chosen projects – transparency of choosing projects has critical importance.

## 6. Stakeholders Presentation, Association

Two members of Associations were invited and they gave the presentations on following order:

The presentation from Finnish Energy Association gave by Petteri Haveri. He pointed out that delay of projects is very high, about 1/3 of all projects. He opened issue for discussion why no one project from Nordics are included in PCI list. Right now in PCI list are projects connecting Nordics with Continental Europe and projects within Baltic States, but there are no projects between Norway/Sweden, Sweden/Finland and Finland/Sweden. Why it is so?

Mart: PCI-process; critics have been issued by gas sector in Regional group BEMIP, managing the PCI-process is too costly, too demanding, and put too much effort keeping on track, but it maybe not so relevant for electricity.

Proposal from the audience:

For future development an idea: inclusion of congestion costs and counter trade costs per cut improvement possibilities in the execution. PCI-process should TSO's be more aggressive. Overall it seems that in Northern countries grids better developed than the rest of EU grid.

Marcel Steinbach from German Energy Association - BDEW has presented the current situation regarding energy policies in Germany. The issue with very high penetration of RES in Germany is very significant and important at the moment. The issue is that conventional power plants are disturbed and often pushed out of the merit order energy markets. The result is that many operators are considering decommissioning those generation units. This will have an impact on open the second thing to be worried is security of supply. Capacity markets could ensure security of supply and can be as solution for future power system. As solution from his position can be BDEW is analysing a decentralized capacity market in this respect to be able to implement it, when it is needed. But it must be made clear that the . The current bestmain approach is to further dev conclusions are that development of the network infrastructure must remain theas a backbone for the energy transition and the TYNDP and the RegIP for the Baltic Sea region are crucial for the success.

The question from the audience

What can be done to improve the situation?

The answer from Marcel

About 70 % of BDEW has undertaken a few studies that confirm that a majority of citizens think it that the "Energiewende" (the energy transition towards a sustainable energy system) is a good idea, However, even though t about environmental concerns (Energiewende) and they are supporting this idea, support for higher prices is very limited but none wants to pay for it. Local citizens and regional presidents governments know that NPPs in Germany are going to close and that additional basenew secured generation capacity will be necessary. We have to understand that it is necessary to improve the currentprepare for the transition situation and we have to try to make citizens understand why

we have to explore this situation. What you see that especially in Bavaria NPP's will be shut down, this will either require new fossil fuel generation or the planned and solution grid projects would be to build grid to support, but in order to achieve this there must be a solution to the main consensus is that they don't need the lines; improve acceptance for the grid projects.

The question from Mart

Do you see it is an issue that we are modelling energy only markets?

The answer from Marcel

For short time it is OK and feasible. As for coordinating network planning with but for long term market signals the relationship is not so clear and hard to predict. there could be wrong price levels due to change of merit order. With new RES building we are putting very high pressure to this issues. The analysis for the CBA assumes that Scandinavian hydro will replace continental fossil fuels, but we should prepare for scenarios, where German wind will replace Scandinavian hydro.

The question from audience about flexibility

Do you ask for flexibility or capacity?

The answer from Marcel

Both. The conventional power plants can provide higher level of security of supply competing to RES generation.

## 7. Stakeholders Presentation, Authority view

Ingrid Haukeli from Norwegian Water Resources and Energy Directorate has presented the Authority's and Acer's view on the TYNDP. The most economical projects and technical efficiency projects selection can increase the transparency among countries of EU. She highlighted necessary improvements for TYNDP 2014 and further.

Expectations to stakeholders should be more clearly communicated – how can they contribute in the TYNDP process? It is getting increasingly difficult to respond to questions from ENTSO, so many questions. Also very many different network users that have different concerns, that it is difficult to find consensus.

The question from Mart

What does it mean bilateral meetings with Stakeholders?

The answer from Ingrid

It can be organized under ENTSO-E Stakeholders group. The main Stakeholders under this group are ACER and European Commission but rest of Stakeholders are involved partly. Different SGs of ENTSO-E have direct bilateral meetings with Stakeholders.

Mihai (ENTSO-E) - Norwegian Water Resources and Energy Directorate involved to ENTSO-E Stakeholders group for improving communication between ENTSO-E (TYNDP) process and Stakeholders.

## 8. TYNDP next steps & stakeholders

Maarit Uusitalo from Finnish TSO (Fingrid AS) as a member of RGS and ENTSO-E Stakeholders group has presented the next steps regarding TYNDP preparation and future Stakeholders involvement in TYNDP procedure. ENTSO-E interacts with stakeholders in several ways. There are special stakeholder groups that can be formed while for example drafting a network code. In addition ENTSO-E discusses issues bilaterally with stakeholders and organises open workshops on various topics, like the regional workshops on TYNDP 2014. The TYNDP 2014 will also be open for formal consultation from 15<sup>th</sup> July till 15<sup>th</sup> September. Looking towards TYNDP 2016 RGS and ENTSO-E are finalizing the CBA methodology expected to improve TYNDP 2016. The developments of long-term adequacy methodology are required and ENTSO-E is working on this issue.

The comment from Stakeholders

Marcel – regarding increase of communication with Stakeholders to improve the TYNDP preparation and collect inputs from Stakeholders. It is also demanding for the stakeholder associations to be able to respond to ENTSO-E requests for responses and comments, since recently there has been a lot requests while several codes are drafted at the same time with scenarios and TYNDP elaboration.

## 9. Conclusions and Close-up

Mart made a summary of the discussions of the meeting. Members of the ENTSO-E RGS have tried to give reasonable answers to all the questions received from Stakeholders during the meeting. Mart asked feedback from Stakeholders and appreciated their inputs to the discussion during the day.



## ANNEX1 – AGENDA

---

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

Date: 18 March 2014 – Stockholm

Radisson Blu Arlanda Airport Conference, located between Terminals 4 and 5 at the airport

Time: 10:00-15:00

## AGENDA

---

No	Subject	Time	Lead	
1.	Welcome and Introduction: ENTSO-E TYNDP process	10:00	20'	Mart Landsberg Convenor Regional Group Baltic Sea
2.	TYNDP assessment: focus on CBA Methodology	10:20	20'	Arne Egil Pettersen Member Drafting Team Planning Standards
3.	TYNDP 2014 process & scenarios (2030 Visions Approach)	10:40	30'	Grete Westerberg Member Regional Group Baltic Sea
4.	Market and Network Studies: provisional results: Comparison between Vision 1 “slow progress” and Vision 4 “green revolution”; Investment Needs	11:10	30'	Knut Hornnes Convenor Subgroup System Adequacy and Market Modelling – Regional Group Baltic Sea
5.	Market and Network Studies: provisional results: Project Assessment Results	11:40	30'	Oleg Tsernobrovkin Convenor Subgroup Network Development – Regional Group Baltic Sea
6.	Discussion	12:10	20'	ALL
7.	<b>Lunch</b>	<b>12:30</b>	<b>60'</b>	
8.	Stakeholder Presentation Association's view	13:30	20'	Petteri Haveri Finnish Energy Association
9.	Stakeholder Presentation Association's view	13:30	20'	Marcel Steinbach German Energy Association - BDEW
10.	Stakeholder Presentation Authority's view	14:00	20'	Ingrid E. Haukeli Norwegian Water Resource and Energy Directorate
11.	TYNDP next steps & stakeholder involvement	14:30	20'	Maarit Uusitalo Member Regional Group Baltic Sea
12.	Conclusions and Close-up	14:50	10'	Mart Landsberg , Elering Convenor Regional Group Baltic Sea