ETIP Wind

EUROPEAN TECHNOLOGY & INNOVATION PLATFORM ON **WIND ENERGY**

Executive Committee meeting minutes

By ETIPWind secretariat

23 September 2019

etipwind.eu

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826042

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1 Meeting details

Venue: WindEurope office, Rue Belliard 40, 1040 Brussels, Belgium.

Date & time: Monday 23 September 2019, 14:00 – 18:00.

2 Global wind energy market and technology outlook

Wood MacKenzie gave a market outlook for the wind energy sector. By 2040 renewables are expected to meet 40% of Europe's energy demand and 24% of global energy demand. Wind energy is expected to triple its installed capacity and meet 17% of global electricity demand.

For wind energy Wood MacKenzie expects that on average 70 GW will be installed globally each year for the period 2018-2028. China will remain the biggest market and is expected to see record years of annual installed capacity in 2019 and 2020 before the government switches to an auction based support mechanism from 2021 onwards. By 2040, 5 of the 10 biggest markets for electricity consumption will be in the Asia-Pacific region.

China will also become the biggest offshore market with an installed capacity of more than 40 GW. The other main offshore markets will be the UK (17 GW), the US (16 GW) and Taiwan (9 GW).

Repowering will become a significant market opportunity in Europe. In Germany 7.1 GW of new capacity could come from repowering by 2028. In Spain, France and the Netherlands this could be between 2 and 3 GW. However, due to recent permitting issues (especially in the German market) these assumptions might seem too ambitious.

Wood MacKenzie expects the market will continue to drive demand for bigger turbines. As a result, the commercial lifespan of new designs will be 50% shorter compared to the turbines that are being installed now (and which were designed in 2014-2015). They expect new 4-5 MW wind turbines will be commercially viable for 3-4 years

The shorter lifecycles, coupled with the (relative) lower numbers of units needed to reach a certain volume (because turbines are getting bigger), put a stress on the manufacturers and their supply chain. As a result, the top 5 OEMs are expected to further strengthen their market position. In 2017 they accounted for 60% of the global market, by 2027 they are expected to take 74% collectively.

With regard to innovation the modular approach will gain in importance. Modularisation will help reduce costs and for specific components such as rotor blades they will also ease installation. So far, there is just 1 manufacturer that is using significant number (1000) of modular blades, but in the next years all European wind turbine manufacturers are expected to adopt the technology

3 Long term scenarios for wind energy in Europe

In 2018, 179 GW of wind energy was installed in Europe, split between 160 GW onshore and 19 GW offshore. **By 2030 WindEurope reckons this could 323 GW,** 253 GW onshore and 70 GW offshore**.** Looking even further the IEA and the European Commission published several scenarios for an energy system compliant with the Paris Agreement.

In the **IEA New Policies scenario** this means that **439 GW of wind energy** would be installed in Europe by 2040. The IEA does not (yet) have a split between onshore and offshore wind. According to the **1.5 TECH scenario of European Commission**, which was published as part of the Commission's proposals towards a carbon neutral economy by 2050, wind energy installed capacity would be **more than 1200 GW in 2050**. Offshore wind alone

would see a total installed capacity of 450 GW. To meet the 1.5 TECH scenario Europe would need to install 50 GW of capacity each year between 2030 and 2050. By comparison, in its record year Europe installed 17.1 GW.

4 State of play on EU research policy

The final budget of Horizon is still not known as final numbers will be decided during the broader negotiations on the total EU budget for 2021-2027. A deal is expected in 2020, but by the end of the year a provisional budget range should be communicated to DG Research & Innovation. ETIPWind and WindEurope have joined numerous calls for a more ambitious Horizon Europe budget.

At least 35% of the Horizon Europe budget is earmarked for climate action. This is an integral part of the provisional deal struck between the European Parliament and the Council and as such it is un-negotiable.

ETIPWind has submitted its response to the public consultations on the strategic planning and the implementation of Horizon Europe. They are uploaded to the ETIPWind website. See them here. The ETIPWind secretariat and the chair will also participate at the EU R&I days to voice the platform's recommendations.

5 Technology roadmap discussion

The EXCO agreed with most of the changes made in the draft document.

Three items stood for discussion.

5.1 Electricity mix prognosis

The EXCO questioned the assumptions and methodology used for the projected evolution of the EU electricity mix to 2050 (Figure 1 in the draft roadmap). They also asked for a comparison of the parameters used in the various other long term scenarios that were shown earlier.

Action: The secretariat will share all assumptions of its own and the other scenarios (if available). The EXCO will revert with preliminary comments in one week time.

The EXCO also wondered whether the increased share of electricity is the right argument. The real challenge is the increase in installed capacity.

Action: the secretariat will prepare a chart highlighting and comparing the installed capacity as shown in various long term scenarios.

Should the projected electricity mix be removed from the roadmap, the secretariat will remove additional projections that build on the projected electricity mix.

5.2 Energy subsidies

The EXCO felt that the figure 3 of the report did not have a clear message. Initially meant to show the stability of fossil fuel subsidies in Europe, it could also be seen as portraying renewable energy technologies as expensive (because they receive more subsidies). In addition, the graph only has data up to 2016 and since then subsidies for renewables have declined. This mostly due to a reduction of Feed-in-Premiums.

Action: the secretariat will remodel the chart to include more specific categories (e.g. wind and solar instead of just renewables).

The EXCO wondered if the low carbon price is not an energy subsidy. The secretariat highlighted that **there is no clear definition of what a subsidy in the energy sector is**. The IMF and the OECD both use different definitions and methodologies. According to the IMF global subsidies for fossil fuels amount up to 5,000 billion Euro in 2017. However, a specific analysis focused on Europe is out of the scope for the ETIPWind secretariat.

Action: the Secretariat will look for historic data on fossil fuel subsidies.

Action: the secretariat will add a line on the CO2 abated by wind power in the period 2008-2016.

5.3 The roadmap graphic

The EXCO agreed with the outline of the main graphic. To highlight priorities with high criticality the EXCO suggested to use colour shading.

Action: the secretariat will proceed with the designer to develop the graphic.

6 Synergies with the wind energy R&I community

Agnar Gudmundsson participated on behalf of ETIPWind at the **84th IEA Wind Executive Committe**e meeting on 18 and 19 September 2019. The meeting took place in Copenhagen, Denmark. There were a number of ETIPWind EXCO members present. **ETIPWind and the IEA wind community discussed possible synergies** with regard to communication and events to increase political impact.

The **EERA JP Wind has published its 2019 R&I strategy**. Activities of EERA JP Wind members is focused on TRL 3-8 and is aligned with the EAWE and ETIPWind research agendas, which respectively focus on lower and higher TRL ranges. See the agenda here.

The topics of the EERA JP Wind research agenda are:

1. Next generation wind turbine technologies and disruptive concepts;
2. Grid integration and energy systems;
3. Sustainability, social acceptance, economics and human resources;
4. Offshore wind (bottom-fixed and floating);
5. Operation and maintenance; and
6. Fundamental wind energy science.

The EAWE's Wind Energy Science Conference (WESC) in Cork was a great success. The next big conference will the **Torque conference in May 2020**. It will be in Delft, the Netherland.

A major challenge to academic-level wind energy science and fundamental research is **the volatility of science funding**. Professors in smaller departments are highly dependent on scarce public funding. In Germany most research has to be done together with industry in order to get access to funding. On the one hand this is good, it ensures results will be applied. On the other hand, it also limits the scope of possible research. EU funding could play a role in stabilising funding for wind energy science.

7 The ETS Innovation Fund: next steps

Action: The European Commission is looking to collect more in-depth recommendations for the ETS Innovation fund. Interested parties are encouraged to contact the ETIPWind secretariat so it can notify the European Commission.

8 How wind is going circular: next steps

On Thursday ETIPWind organised a webinar on recycling composite materials from rotor blades. New materials for next generation blades were also discussed. More than 100 people participated in the webinar.

Action: the webinar recording and presentations are now online. See them here.

9 Wind energy & the global market: EU trade policy

The ETIPWind secretariat gave an overview of the ongoing European trade measures affecting the wind industry. The presentation focused on the steel safeguard measures on the "non-alloy & other alloy quarto steel plates" and "non-grain-oriented electrical steel (NGOES)", as well as the anti-dumping investigations on glass-fibres.

EU made glass fibres are on average 65% more expensive than Egyptian glass fibres and 30% more expensive than Chinese glass fibres. The Commission is exploring ant-dumping duties to establish a level playing field in the European market. Assuming a 30% duty the European glass fibre industry (Tech-Fab Europe) expects a total cost increase of 0.5% for a 4 MW wind turbine and 0.2% for a 7 MW wind turbine. WindEurope is still working on its cost impact assessment.

The ETIPWind EXCO noted that the quality of European glass fibre is often not sufficient to the standards of wind turbine manufacturers. As a result, they believe manufacturers will continue to source the highest quality fibres. Rather than installing anti-dumping measures, the EU should support investments in the European glass fibre sector so that it can produce higher quality products.

10 Next meeting

The next and final meeting of the year will be on **Thursday 28 November** during the WindEurope Offshore event in **Copenhagen**. The meeting will take place in the morning **from 09:00 to 13:00** CET.

11 Participants list

Organisation	Representative
ABB	Adrian Timbus
DNV GL	Lars Landberg (joined online)
EAWE (TUM)	Carlo Bottasso
EERA JP Wind (ORE Catapult)	Paul McKeever
EERA JP Wind (TNO)	Peter Eecen
E.ON Climate & Renewables	Henrik Wall
Equinor	Hanne Wigum (joined online)
GE Renewable Energy	Jaco Nies (joined online)
Iberdrola Renovables Energía	César Yanes Baonza
Ørsted	Jørn Scharling Holm (joined online)
RES	Mike Anderson
Siemens Gamesa	Aidan Cronin
WeAmec	Florent Vince (observer)
Vestas A/S	Agnar Gudmundsson
WindEurope	Joshua Gartland (presenting)
WindEurope	Ivan Kosumanac (presenting)
WindEurope	Sabina Potestio
WindEurope	Alexander Vandenberghe
Wood Mackenzie	Shashi Barla (presenting – joined online)