EWEA

THE EUROPEAN WIND ENERGY ASSOCIATION

EWEA response to the ENTSO-E consultation on the Scenario Outlook and System Adequacy Forecast 2011-2025

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1. General remarks

EWEA welcomes this consultation as an appropriate measure of ENTSO-E to complement the bottom-up scenarios in the previous pilot 10-year network development plan (TYNDP) and ensure consistency with the 2020 RES targets in the upcoming official version of this plan in March 2012. This is crucial as any European generation adequacy outlook and resulting network projects in Europe should factor in this EU objective as the achievement of the 2020 RES targets must not be undermined by inadequate grid enhancements. It is furthermore important as this will help changing the upcoming official TYNDP from a mere forecast document based on national into a Pan-European planning vision for grid infrastructure.

EWEA structures this response into a part with more general remarks and a list of elements which should be incorporated in the final version of the Scenario Outlook and System Adequacy Forecast 2011-2025.

By 2020, most of the EU's renewable electricity will be produced by onshore wind farms. (35% of total RES capacity installed) in 2020, followed by hydro at 28%. Solar photovoltaic installations will represent 17% of total RES-E capacity, followed by offshore wind and biomass. In all, total installed RES capacity is set to more than triple from 175 GW installed in 2005 to over 487 GW in 2020.
Based on the EWEA analysis looking at the current stage of the action plans as they are, the EU-wide ambition for wind energy in 2020 is to reach over 213 GW cumulative capacity (of which 43 GW offshore), producing 495 TWh meeting 14% of the EU's power consumption. By and large the ENTSO-E wind power top–down scenario for 2020 corresponds to these figures.

ENTSO-E rightly states that the availability of data in order to better forecast future generation developments and investment needs is critical for future releases of the TYNDP. In general, ENTSO-E should therefore take into account and analyse all available data from stakeholders concerning generation investment sizes and locations, particularly for RES, as this data will be essential for both network modelling and market analysis. The involvement and consultation with external stakeholders will be indispensable in this process and EWEA aims to actively support ENTSO-E in its work.

2. Points to be reviewed

In order to make this Scenario Outlook the basis for future network development on a European level, it is vital that ENTSO-E includes the following elements in its revision, due in June 2010:

- **Ensure robustness of the top-down scenarios:** While much remains to be done to achieve the 20% target EWEA believes that it will be exceeded. Our analysis of the NREAPs has shown that renewable energy will meet 20.7% of the EU's energy needs in 2020, exceeding the EU's 20% target by 0.7 percentage points. For this reason the top-down scenarios should not be perceived as the maximum upper limit for the TYNDP scenarios, but also allow for robustness as these targets might also be beat. For wind power, EWEA therefore recommends to use additional margins to ensure this kind of robustness in the top-down scenarios.
  EWEA has pinpointed market expectations for wind power growth in the EU in two scenarios: The "baseline" scenario assumes a total installed capacity of wind power in the EU by 2020 of 230 GW, producing 582 TWh of electricity. EWEA's "high" scenario assumes that total installed wind power capacity will reach 265 GW by 2020, producing 681 TWh of electricity.

- **Take into account possible changes in National Renewable Energy Action Plans (NREAPs) and align the RES assumptions of certain MS:** It is expected that certain NREAPs will be revised upon request from the European Commission due to its lack of quality and consistency. For wind energy in particular, Bulgaria outlined in its NREAP only a fraction of foreseen wind generation capacity by the power sector. Furthermore, Italy, Belgium, Finland and Romania have published qualitatively particularly unsatisfactory NREAPs which are likely to be revised upon request from the European Commission. For a more detailed analysis of the respective deficits in the NREAPs please consult the recent EWEA report:
  http://www.ewea.org/fileadmin/ewea_documents/documents/publications/reports/EWEA_EU_Energy_Policy_to_2050.pdf

  EWEA urges ENTSO-E to take these revisions into account and adjust their scenario outlook for the TYNDP accordingly.

- **Take into account upcoming RES targets in non-EU Member States:** Relevant countries Ukraine for the ENTSO-E synchronous system such as the Balkan countries do not have RES targets yet. However, via the EFTA (for Iceland) and the European Energy Community agreements, they will all have to transpose EU legislation on energy including the RES directive. Therefore all these countries will have to adopt targets using the same methodology used by the EU Member States. Norway is the most advanced in this process do far. With improved electricity exchanges between Turkey and ENTSO-E's Continental Europe Synchronous Area this country will also play a major role in system planning. To point out the volumes, EWEA foresees an installed wind power capacity of 20 GW by 2022 in Turkey according to an indicative government target.
  EWEA urges ENTSO-E to take these relevant RES targets in non-EU member states targets into account for their scenario development as soon as they are available.

- **Underpin the expected impact of efficiency measures on electricity consumption:** ENTSO-E considers in its top-down scenario a total consumption by 2020 of around 3220 TWh for the EU-27 including an overall drop of electricity consumption due to efficiency measures of almost 10% by 2020. However, neither the scenario tools of the European Commission nor the Member States plans are indicating such a reduction in consumption on a EU level. The NREAPs (in their high energy efficiency scenarios) add up to 3529.4 TWh whereas the Commission's

PRIMES model to 3689.7 TWh. In this context, it remains unclear why ENTSO-E has chosen in his Scenario Outlook such a reduction in electricity consumption and EWEA would welcome a clarification on this.

- **Take into account the amount of firm power provided by wind energy:** An important issue for power system design is how much installed wind power capacity statistically contributes to the guaranteed capacity at peak load, the so-called "capacity credit". Due to the variability of wind, its capacity credit is lower than that of other technologies. Nevertheless, there is a certain amount of firm wind capacity, which contributes to the adequacy of the power system. Despite the real technical and physical capacity value of wind power, it is not yet regularly used for capacity planning and is not given a value in power markets. One of the barriers is the absence of a standardised accepted method for calculating capacity credit. EWEA therefore calls on ENTSO-E to develop and utilise a harmonised method for wind power capacity credit assessment in European generation adequacy forecast and the upcoming TYNDP, in order to properly evaluate the contribution of wind power to system adequacy. This would also constitute a basis for valuating wind power capacity in the future liberalised electricity market.

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