



## **RESPONSE ON THE CEER CONSULTATION ON REGULATORY ASPECTS OF THE INTEGRATION OF WIND GENERATION IN EUROPEAN ELECTRICITY MARKET**

Founded in 1987, APER gathers and represents the electricity Producers from renewable sources with the aim **to protect their rights and promote their interests in Italy and worldwide.**

APER is the main Italian **association of electricity producers from renewable sources** and one of the largest in Europe for the number of members and installed power. At present its members are more than 450.

APER is the voice and the reference for professionals in the **hydroelectric, wind, photovoltaic** and **bioenergy** sectors.

APER is also developing a deep knowledge in the renewable electricity market and on the incentive regulation.

### ***The Italian case***

APER reports the Italian situation as an example of a country which today presents a penetration of wind energy in the electricity system (about 2,1% of the Gross Internal Energy Consumption) lower than other European countries – such as Germany, Spain and Denmark - with considerable growth forecast to 2020. As the wind power installed is particularly concentrated in some specific areas characterized by infrastructural deficiency, **the attention of APER and Italian wind energy operators is focused on network development planning and realization topics to reinforce the national transmission grid**, according to a required integration of the growing wind power in the network.

So far in Italy **the curtailments to wind plants production imposed by TERNA (the Italian TSO) have had such a very high frequency that they have lost for over a year their nature of exceptional interventions to maintain the grid stability**, becoming as a structural element of the power system. Therefore, the grid congestion and **the TSO's difficulties in dispatching energy generated from wind have strongly increased the**



**demand of grid infrastructure updating** and today this represents a restriction for new energy produced by wind.

However, **this situation is not unexpected: it has grown from continuous delays to undertake effective measures to develop the network since the beginning of years 2000.**

In fact, the risk of a network inadequacy was asserted for several years in all previous Grid Development Plans because of the expected installation of new wind power. It can be noticed that in all planned works to increase the grid capacity to receive wind energy the same lines keep recurring, and these are the same lines that are in trouble at present.

In addition, it has to be taken into account that nothing was done in order to implement a forecast tool in order manage the wind power as a predictable source. This should have been lead to a more reliable plan of development of the grid with a more measured curtailments to wind power generation.

**The missed realization of several already-planned interventions and the effects of this inertia - so evident today - represent a crucial issue we need to tackle at European level.** In fact, the progressive cross-border integration of a growing amount of not predictable renewable energy passes through the improvement of the transmission capacity.

Moreover, **TERNA includes its projects in the authorization process of wind farms in order to accelerate the approval, overloading the procedures for wind developers and depriving itself of responsibility.**

### ***Planning***

The Italian experience is tied to a *fully-funded* network development model, which means it is based on network reinforcement subsequent to the connection of new plants to the grid. But the delay of the authorization process for the grid development is longer than the authorization time needed for a wind plant. The lack of schedule coordination is one of the most important reasons of the grid development delay. Without identifying the proper actions to be taken depending on different scenarios, it's hard to avoid considerable delays of network development even if quicker authorization processes are obtained.



**To arrange essential and efficient plans the TSO has to share with the stakeholders the condition of its lines, the localization of the areas where the highest number of wind plants will be installed and the effect that new plants will have on the existing infrastructure.** Then, more coordination is needed between operators and TSO.

Moreover, **the EU directive 2009/28/CE targets suggest that this approach will have to be transposed in Grid Development Plans by a specific chapter dedicated to the initiatives to improve the transmission system addressed to receive the increase of renewable power connected to the grid.** The aim of it is to gather all the useful information to plan correctly future works.

Therefore, **a guiding principle to be introduced is the transparent management by TSO of the planning activity to avoid any risk of wind energy discrimination.**

### ***Responsibility***

The planning network development is effective if it is followed by reinforcing inadequate transmission lines, installing and building new power lines and stations. Moreover, if the planned projects are not realized within defined time horizons the consequences of a reduction of the system safety will raise further curtailments to energy dispatching. So **a careful cost/benefit analysis must internalize the so-called Costs of Not Doing, very relevant in case of essential facilities, to quantify the loss of social welfare if the works – though planned – are not realized.**

The commonly adopted network's development economic incentive to TSOs appears a necessary but not sufficient condition, since it doesn't necessarily respond to a correct attribution of responsibility, as the principal-agent relationship between the State Members governments (principals) and their TSOs (agents) should suggest. Therefore, **it has to be given more responsibility to TSO which should demonstrate to have taken all possible measures to optimize, improve and expand the capacity of the network to avoid any kind of curtailment of wind production.**



### ***APER's proposal***

In light of the described principles, **we propose that the European Commission adopt a recommendation which provides that** in the ongoing implementation process of the EU Directive 28/2009/CE **State Members will:**

- a) **provide strong monitoring of the TSO's activities of planning and project reporting** in order to remove information asymmetry;
- b) impose to TSO to **publish in their Grid Development Plans an Appendix completely dedicated to renewable energy** – in particular to wind and solar energy – which gives the priority of works based on a transparent and in-depth cost/benefit analysis;
- c) impose to TSOs to publish an exhaustive annual **progress report which assesses the state of the art of the planned projects, the causes of delay, the corrective actions put in place, and all information on the actions taken during the permitting process in order to speed them up;**
- d) introduce, through shared milestones and benchmarks, **a quantitative** (e.g. km of new and enhanced lines) **and qualitative** (e.g. increasing of wind energy dispatch) **assessment of TSO's work;**
- e) agree to **share with the TSOs the incurred costs for missed achievement of EU directive 2009/28/CE targets**, that are the TSO's responsibility;
- f) adopt **a wind turbines distribution forecast methodology based on a close coordination between TSOs and wind energy firms;**
- g) **impose to TSOs the burden to demonstrate to have taken all possible measures to optimize, improve and expand the capacity of the network before allowing to curtail wind production.**

**We also propose that the European Commission handle a biennial assessment of the application of the recommendation's directions by State Members.**