

VESTAS ACTIVITIES IN TURKEY AND OTHER SOUTH EAST EUROPE COUNTRIES

- ABSTRACT-

This presentation is meant for debate only and does not purport to represent the views, strategies or plans of Vestas Wind Systems A/S or any of its subsidiaries.

The year 2006 has been a record year for the wind sector. According to GWEC statistics in 2006 were installed 15.196 MW worldwide and the accumulated capacity reached 74.223 MW.

European market continues to be the most developed market but at the same time Asia markets (India and China) and North America (USA and Canada) are in strong growth.

In the Mediterranean area in 2006 have been installed 3.880 MW and the accumulated capacity has reached 18.239 MW.

South Mediterranean countries (North Africa countries, Middle East, Turkey and other South Balkans' countries) are well known for their huge wind potential and they have demonstrated a good performance in the year 2006, in particular there has been an appreciable increase of the wind market in Turkey, Morocco and Egypt.

A new entry in the wind market is represented by Turkey. Turkey has dynamic economic development and rapid population growth. The net effect of these factors is that Turkey's energy demand has grown rapidly almost every year and is expected to continue growing. Power production in Turkey is realized in great part by thermal plants (gas, oil and coal represent about 70% of total power production) and Turkey is strongly dependent on import of fossil fuels.

To meet the increasing energy needs, reducing at the same time the import of fossil fuels, Turkey is planning to diversify the energy mix developing also the renewable sources.

According to the latest projection of TEIAS (January 2007), the Turkish grid operator, the energy demand is foreseen to increase by 6,3% per annum in the years 2006-2015 and the total installed capacity by 2015 is expected to reach about 59.000 MW. Wind industry will play a primary role to reach this target and the accumulated installed capacity by 2015 will reach more than 1450 MW, representing 2,5% of the total accumulated capacity. In order to promote the renewables in May 2005 the Renewable Energy Law has been adopted. The law is a 1° step towards the implementation of the renewables, nevertheless the Law does not set a target for electricity generated from renewable sources.

The Renewable Energy Law introduced a feed in tariff scheme:

- licenses to generate and transact power from the renewable energy resources
- obligation on retail company to purchase renewable energy from producers on the basis of bilateral agreements
- renewables price equal to the average wholesale price of the previous year
- feed in tariff duration: first 7 years of operation

The average wholesale price for the year 2006 was 91,3 TRY/MWh and is expected to increase to 94,1 TRY/MWh in the year 2007.

The Parliament is discussing an amendment to the Renewable energy law in order to improve the actual feed in tariff scheme:

- Introduction of a minimum price
- Minimum price higher and expressed in Euro/MWh
- Extension of the financing duration period at least to 10 years

Thanks to the new stable legal framework and a quite attractive support mechanism in Turkey many foreign and local players are interested in wind development and have projects in the pipeline.

In the year 2006 Turkey's installed wind power more than doubled and in Turkey have been installed 30,85 MW. Lately Vestas has closed 1 contract with the client Sanko Group - Catalca 20 V90-3 MW (60 MW) – and 3 contracts with the client Aksa Group - Baki Samli 30 V90-3 MW (90 MW), Karakurt 6 V90-1.8 MW (10,8 MW), Sabenova 15 V80-2.0 MW (30 MW). Sabenova and Karakurt are expected to be commissioned in the year 2007, meanwhile Baki Samli and Catalca are expected to be commissioned in the year 2008.

All these wind power plants have an estimated annual production of more than 0,6 TWh, which corresponds to an annual emission saving of more than 330,000 tons of CO₂.

The case of Turkey demonstrates that wind development is possible in South Balkans' countries if effective measures are taken. In South Balkans' area Bulgaria and Romania are other two countries with good wind resources and ready to exploit their potential.

According to a study conducted by the Bulgarian Academy of Sciences in 1982 in Bulgaria there is a wind potential of 2,200 - 3,400 MW and the most promising sites are in the northern Black Sea Coast, the central mountain range and the Rhodop mountains in the southwest.

According to estimations of ARCE (Romanian Agency for Energy Conservation) in Romania there is an important wind potential, especially along the Black Sea coast, in the mountains, on the Moldavian and Dobrogea plateau. Wind potential in the short and medium terms can be evaluated about 2000 MW.

To carry out the development of wind markets in South Balkans' countries is necessary:

- To create a stable legal framework to attract investments of foreign and local private investors and developers
- To establish permitting process well structured and transparent
- To define the target for Renewables and Wind
- To create a stable and effective system of Support Mechanisms that allow the projects to be financially feasible
- To reduce technological barriers: grid development and grid connection etc.
- To assess the wind resources (Wind Atlas, wind studies etc.).

South Balkans' countries have a huge unexploited wind potential and Vestas believes that wind energy as competitive, secure, and inexhaustible energy source can play a significant role in differentiating the energy mix and meeting the growing electricity demand in South Balkans' countries.