A bottom-up approach to structuring the French Wind Power Industry

Bruxelles, 16 March 2011

- French Wind Power Market : 25 000 MW in 2020
- Significant assets to develop a wind energy industry throughout the value chain
- French component suppliers know-how and expertise
- Active investment by the French regions

© Syndicat des Energies Renouvelables

French wind power market : 25 000 MW in 2020

- France has the **2nd potential** in Wind Energy in Europe behind the UK
- French coasts - in particularly the North coast - are well adapted to develop offshore wind farms.
- Objectives enacted by 2010 Energy Law :
  - **23% of renewable energy supplying** in the final energy demand (+ 20 Mtoe)
  - **a quarter** of wich is expected to come from **wind power** (~ 5 Mtoe)
  - **25,000 MW by 2020, of which 19,000 MW onshore and 6,000 MW offshore**
- A 3, 000 MW offshore wind energy call for tender will be launched on the zones selected in May 2011. **5 areas have been identified as « favourable »** for the development of offshore Wind energy.
- The wind power industry currently **employs almost 11,000 people in France** throughout the value chain.

© Syndicat des Energies Renouvelables

Current French wind power market

- Thanks to the “Grenelle de l’Environnement”, French wind power enters in a intensive growth : **+ 66% in 2 years.**

© Syndicat des Energies Renouvelables

France, the four onshore wind power market in Europe

- The European Wind Energy Association (EWEA) expects 190,000 MW of onshore wind capacity by 2020 in Europe.
- **France** is positioning at the 4th **position**.

© Syndicat des Energies Renouvelables

France, the third offshore wind power market in Europe

- The European Wind Energy Association (EWEA) expects 40,000 MW of offshore wind capacity by 2020 in Europe.
- **France** is positioning at the **third position**.

© Syndicat des Energies Renouvelables

Significant assets to develop a French wind energy industry throughout the value chain

- **France benefits from significant assets throughout the value chain to develop a wind** energy industry which will create employments and economic activities :

- **An industrial know-how** with significant experience in aeronautics, manufacturing of large ships, mechanical and electromechanical components,…
- **Active investment by French regions** with the foundation of several clusters

© Syndicat des Energies Renouvelables

French component suppliers know-how and expertise (1/4)

- France hosts more than **180 companies active in the wind energy industry**, several of those companies are world-leading component suppliers. Some of them are :

- **Rollix-Defontaine**, **NTN SNR Roulements, SKF** design and manufacture special bearings and slewing rings
- **Converteam** and **Leroy-Somer** are specialised in drives, converters and generators,
- **Areva T&D** is one of the 3 key players in the world in energy transmission and distribution
- **Stromag** designs and manufactures industrial disc brakes
- **SIAG**, **SEMA**, **Ceole** and **Baudin-Chateauneuf** are specialised in the building of towers
- **Nexans** and **Schneider** are leaders in electrical equipment for wind turbines.
- **Alstom Power** produces control command components.

© Syndicat des Energies Renouvelables

French component suppliers know-how and expertise (2/4)

- **More than 150 companies** have been identified by Cap Gemini as able to diversify in the wind power industry.

Cap Gemini report : http://www.enr.fr/docs/2010165000_Rapportcapgemni.pdf

- Industrial players as a whole are positioned on every single component of a wind turbine :

- For example : Nexter, SAFRAN…

© Syndicat des Energies Renouvelables

French component suppliers know-how and expertise (3/4)

- French expertise from automotive, shipbuilding and aeronautics industries is top ranked and will be more and more used in the wind sector :
  - France has the **2nd world aeronautics industry** behind the USA & the **2nd automotive industry in Europe** behind Germany
  - **EADS Astrium** launched the activity of design and manufacturing of blades. It is setting up a blade factory in the region of Bordeaux.
  - **DCNS and STX** (from the shipbuilding sector) are investigating all offshore opportunities, especially for the manufacturing of foundations, towers and ships
  - **Technip and SAIPEM** from the oil and gas industry
  - ….

© Syndicat des Energies Renouvelables

French component suppliers know-how and expertise (4/4)

- France benefits from significant assets throughout the value chain thanks to the expertise of industrial actors.

Illustration of wind power value chain with the presentation of 7 companies :

Manufacture of components				Installation of wind turbines	Opération & Maintenance
Foundations	Towers	Nacelles and comonents	Blades		
DILLINGER HÜTTE GTS	céole	MERSEN	ASTRIUM		
GROUPE FOURÉ LAGADEC	GROUPE FOURÉ LAGADEC	MANOIR INDUSTRIES			
stx France	stx France				

© Syndicat des Energies Renouvelables

Active investment by French regions

- Several regions are launching initiatives to develop a wind energy industry and several clusters are positioning industrials towards wind energy :

© Syndicat des Energies Renouvelables

Thank you for your attention

Contact :

Syndicat des énergies renouvelables
France Energie Eolienne
13-15, rue de la Baume
75008 Paris
Tél. : +33 1 48 78 05 60
Fax : +33 1 48 78 09 07
marion.lettry@enr.fr
elodie.perret@enr.fr
www.enr.fr

© Syndicat des Energies Renouvelables