Presentation outline

- About EWEA
- Legal framework
  - Elements of successful legislation
  - Renewable Energy Directive
- Wind energy in Europe
  - Benefits of wind energy in Europe
  - Pure Power III
More than 600 members from almost 60 countries

- Manufacturers with a leading share of the global wind power market
- Component suppliers
- Research institutes
- National wind and renewable associations
- Developers
- Electricity providers
- Finance and insurance companies
- Consultants
- Contractors

This combined strength makes EWEA the world’s largest and powerful wind energy network

www.ewea.org/membership
Members include the following leading players:
Legal framework (1)

- What is required for a successful legislation:
  - Well designed support scheme
    - Transparent and clear
    - Encourages Investor confidence
    - Fosters innovation
  - Strategic development of the grid and grid access
  - Proportionate administrative procedures
    - One stop shop
    - Manageable administrative requirements: IEA, grid connection lead times
  - Public acceptance
Legal framework - Renewable Energy Directive (2)

• 20% RES binding target by 2020
• Specific national targets:
  – National Renewable Energy Action plans
  – Possibility of infringement procedures if interim targets are not met
• Streamlining of administrative procedures:
  • Authorization procedures transparent and proportionate.
• Infrastructure
  – Member States obligations:
    • Develop transmission and distribution grid infrastructure, intelligent networks, storage facilities and the electricity system" to help develop renewable electricity.
    • Speed up authorisation procedures for grid infrastructure
  – TSO and DSO are required to:
    • Guarantee the transmission and distribution of renewable electricity
    • Provide for Priority access or Guaranteed access to grid
EU electricity mix – 1/4

Installed capacity in 2000

- Gas: 212,131 (24%)
- Coal: 231,050 (26%)
- Nuclear: 127,383 (15%)
- Fuel oil: 54,735 (6%)
- Large Hydro: 120,578 (14%)
- Wind: 84,324 (10%)
- Peat: 2,030 (0%)
- Biomass: 5,851 (1%)
- Small Hydro: 4,843 (1%)
- Waste: 3,703 (0%)
- Geothermal: 1,466 (0%)
- CSP: 635 (0%)
- Tidal & Wave: 250 (0%)

Source: EWEA, EPIA, Estela, EU-OEA and Platts Powervision
New capacity increase between 2000 and 2010
EU electricity mix - 3/4

Net capacity increase between 2000 and 2010

Source: EWEA, EPIA, Estela, EU-OEA and Platts Powervision
Wind Power in Europe end 2010

Annual installations

Cumulative installations

EU electricity mix - 4/4

Share of wind in electricity demand end 2010

- Denmark: 25.6%
- Portugal: 15.5%
- Spain: 15%
- Ireland: 12.9%
- Germany: 8%
- EU-27: 5.3%
- Greece: 4.3%
- Netherlands: 4.1%
- UK: 3.7%
- Estonia: 3.5%
- Sweden: 3.2%
- Italy: 3.2%
- Austria: 2.8%
- Lithuania: 2.7%
- Belgium: 2.3%
- France: 2.3%
- Bulgaria: 2.1%
- Romania: 1.7%
- Poland: 1.6%
- Hungary: 1.5%
- Luxembourg: 1.1%
- Latvia: 0.9%
- Czech Republic: 0.6%
- Finland: 0.5%
- Slovakia: 0%
Wind Power in Europe end 2010

European Union: 84,324 MW
Candidate Countries: 1,418 MW
EFTA: 478 MW
Total Europe: 86,321 MW
Beyond 2020

Wind energy growth scenarios (GW)

![Chart showing wind energy growth scenarios from 2010 to 2030.

<table>
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<th>Year</th>
<th>EC 2009</th>
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Benefits of wind

• **Today**
  – Investment in EU wind farms in 2010 was €12.7 billion;
  – 181.7 TWh produced (48 million average households);
  – 126 Mt CO2 avoided (1/4 of vehicles taken off road);
  – 189,000 jobs

• **By 2030 – 400 GW installed wind power**
  – Investments: €25 billion;
  – 1.154 TWh produced (241 million average households);
  – 646 Mt CO2 avoided annually;
  – 479,000 jobs
Thank you