

## **EWEA briefing on Commission Communication on Financing the Development of Low Carbon Technologies (SET-Plan)**

### **Summary**

EWEA welcomes the Commission's Communication on Financing Low Carbon Technologies as a vital step for developing a renewable energy economy by proposing a substantial and essential increase in funds for energy research. The Communication proposes (public and private) funding for RD&D of €74 billion over the next 10 years, of which €6 billion is proposed for wind energy.

### **EWEA response to the Commission's Communication:**

1. The €6 billion proposed budget for wind energy research represents a smart investment in Europe's energy future as wind power does not emit greenhouse gases, improves Europe's energy security and competitiveness.
2. Less than 12% of the proposed new energy research budget allocated to specific generation technologies will go to wind, and no other technology offers such a big return in electricity generation and greenhouse gas reduction for such a small investment;
3. The Commission's Communication highlights that "the return would be fully competitive wind power generation capable of contributing up to 20% of EU electricity by 2020 and as much as 33% by 2030. More than 250,000 skilled jobs could be created";
4. EWEA acknowledges the very significant and important increase in wind energy research funds, especially compared to the 1% of EU energy research funds historically allocated to wind energy before 2002<sup>1</sup>.

### **Future Actions recommended by EWEA:**

- EWEA urges the Council and European Parliament approve the Commission Communication early in 2010 to allow the early launch the European Wind Industrial Initiative;
- EWEA urges the European Commission to urgently identify the resources that will finance the necessary wind energy research over the next 10 years.
- EWEA urges the European Commission to oversee the deployment of these financial resources, with full involvement of the wind industry in the implementation of the Wind Technology Roadmap.

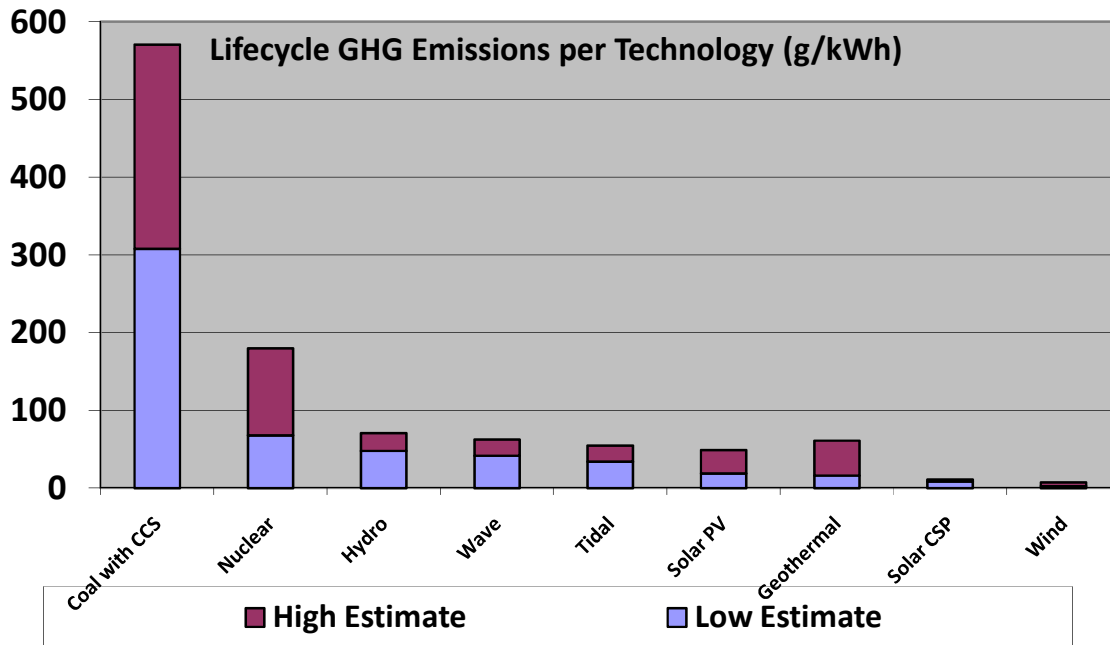


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## Background

The proposed investment in wind energy research is a smart one. €6 billion investment of public and private money over 10 years to increase the share of a carbon free energy technology from today's 4.5% of electricity to 20% by 2020 and 33% by 2030. No other mainstream energy production technology is able to contribute the equivalent of 29% of the EU's GHG reduction target of -20% by 2020.



Source: Mark Jacobson – Stanford University – February 2009

Review of solutions to global warming, air pollution and energy security

Compared to other proposed research budget allocations, wind energy is a smart investment as it will help achieve the 20% GHG target set for 2020. It should be noted that the largest budgets have little or no impact on the implementation of the 20% GHG target, as their expected impact is after 2020.



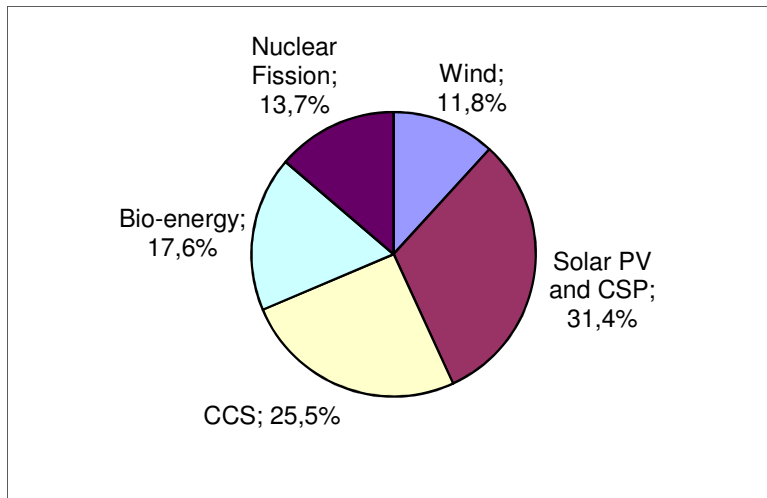
**Energy technologies funding split as proposed by the European Commission in their Communication.**

**Share: Energy production technologies**

Wind	€6 billion	11,8%
Solar PV and CSP	€16 billion	31,4%
CCS	€13 billion	25,5%
Bio-energy	€9 billion	17,6%
Nuclear Fission	€7 billion	13,7%
	€51 billion	

**Share: Energy production technologies**

68,9%



**Share: Non energy production initiatives**

H2/FC	€5 billion
Smart Grids	€2 billion
Smart cities	€11 billion
European Energy Research Alliance	€5 billion
	€23 billion

**Share: non-energy production technologies**

31,08%

**Total SET-Plan**

€74 billion



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**The wind energy roadmap – a long-term high-tech roadmap for wind energy:** The Wind Energy Roadmap has been developed on the basis of the European Wind Initiative, developed by the European Wind Energy Technology Platform (TPWind). The activities listed by the Technology Roadmap represent a significant part of the TPWind proposal.

The objective of the Wind Energy Roadmap is to improve the competitiveness of wind energy technologies, to enable the exploitation of the offshore resource and deep water potential, and to facilitate the grid integration of wind power. It is targeted to take a share of the EU electricity consumption of 20% in 2020. The individual activities are included into a comprehensive framework, forming a roadmap to achieve these targets. The roadmap includes:

- Accurate resource mapping and capacity potentials in Europe including hostile and complex environments through coordinated measurement campaigns and the development of spatial planning tools;
- Building 5-10 new testing facilities of new wind turbine systems;
- Up to 10 demonstration projects of the next generation turbines including a 10-20 MW prototype;
- At least 4 prototypes of new offshore structures tested in different environments;
- Demonstration of new manufacturing processes;
- Testing the viability of new logistics strategies and erection techniques in remote and hostile weather environments;
- Demonstration at an industrial scale of grid integration techniques to manage wind farms as virtual power plants;
- The programme is supported by a large-scale research programme focused at constantly improving the technical and economic performance of wind turbines.

The proposed Technology Roadmap is in line with the TPWind proposal, although a key component of the TPWind proposal was the critical need for additional installation and access vessels supporting the offshore deployment. Additionally, the training activities proposed by TPWind in EWI will be dealt by the European Energy Research Alliance (EERA), whereas the TPWind recommendations regarding the architecture of the electricity system are part of the Grid Industrial Initiative. In this respect, a strong level of coordination will be required between the Wind Initiative, the Grid Initiative, and the EERA.

**Identifying the resources that will finance the necessary wind energy research over the next 10 years:** The detailed Technology roadmap and budget figures are in line with the proposal made by the European Wind Energy Technology Platform. Key questions remain regarding the funding of the SET-Plan in the current financial context. The governance structure of the different Industrial Initiatives is an open question, and a clear position from the European Commission is needed. The current proposal builds on existing financial instruments, and poses the question of coordination of these funding sources in the framework of a programmatic approach. A key element of the successful achievement of the SET-Plan ambitions will be the Member States and Industry participation, which are not addressed by the document.

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<sup>i</sup> Between 1974 and 2002 the wind energy sector received 1% of energy research funding in the IEA countries (compared to nuclear energy which received 58% and fossil fuels 13%).

Source Renewable Energy, Market and Policy Trends in IEA Countries, OECD/IEA (2004) in Prioritising Wind Energy Research: Strategic Research Agenda of the Wind Energy Sector, EWEA, July 2004