



Closing the Gaps towards 2020

Biofuels and Wind

**Oliver Schaefer, Policy Director
European Renewable Energy Council**

**Transnational Cooperation Seminar, Energy
Aberdeen, 23rd September 2008**



EREC – European Renewable Energy Council

Umbrella organisation representing all RES sectors:

- ✓ **AEBIOM** European Biomass Association
- ✓ **EBIO** European Bioethanol Industry Association
- ✓ **EGEC** European Geothermal Energy Council
- ✓ **EPIA** European Photovoltaic Industry Association
- ✓ **ESHA** European Small Hydropower Association
- ✓ **ESTIF** European Solar Thermal Industry Federation
- ✓ **EUBIA** European Biomass Industry Association
- ✓ **EWEA** European Wind Energy Association
- ✓ **EUREC Agency** European Renewable Energy Research Centres Agency

Associate members:

- ✓ **EU-OEA** European Ocean Energy Association
- ✓ **EREF** European Renewable Energy Federation
- ✓ **ESTELA** European Solar Thermal Electricity Association

Representation of European RES industry, trade & research



EU Renewable Energy industry

- ✓ **Europe is global leader in RES development**
- ✓ **350.000 jobs in Europe already now**
- ✓ **Annual turnover of 40 billion € already now**
- ✓ **Innovative Business Sector**
- ✓ **Economic growth and regional development**



Post Industrial Revolution

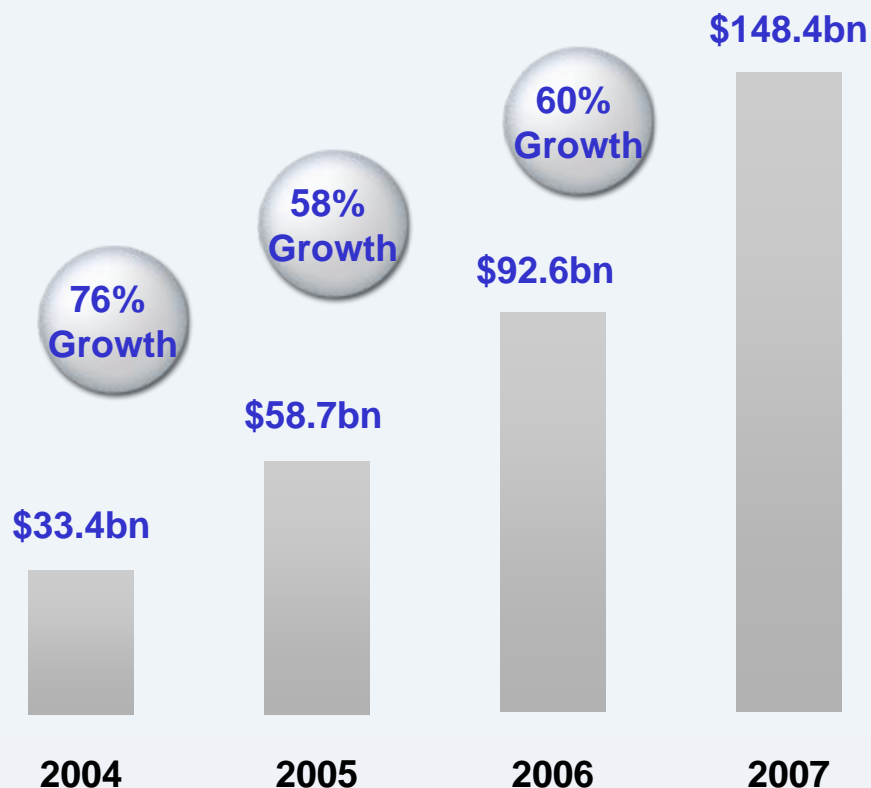
- Environmental policy and climate-protection policy are becoming hard economic issues in the new millenium
- Economic and social issues are going to become more and more interconnected
- Climate protection policy and environmental policy can become the intelligent and elegant mode of economic policy



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Total Global New Investment in Clean Energy

2004 – 2007



1% of global fixed asset investment

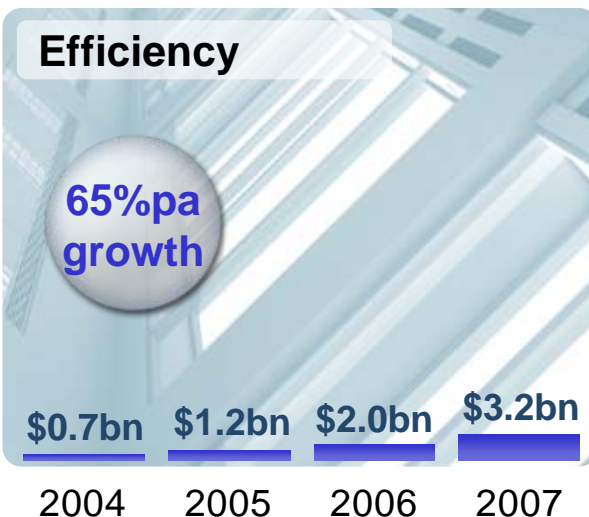
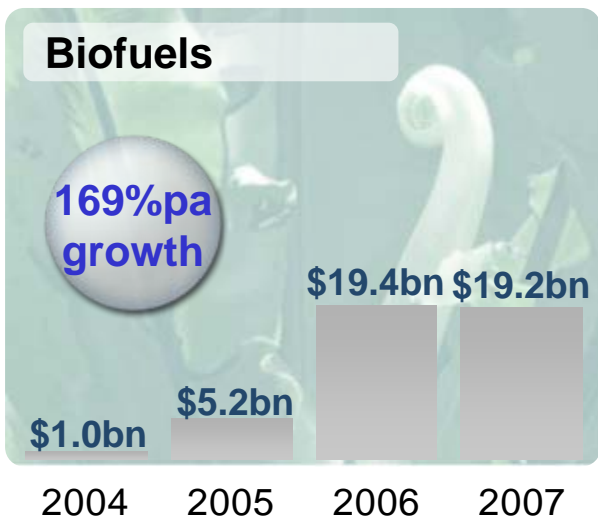
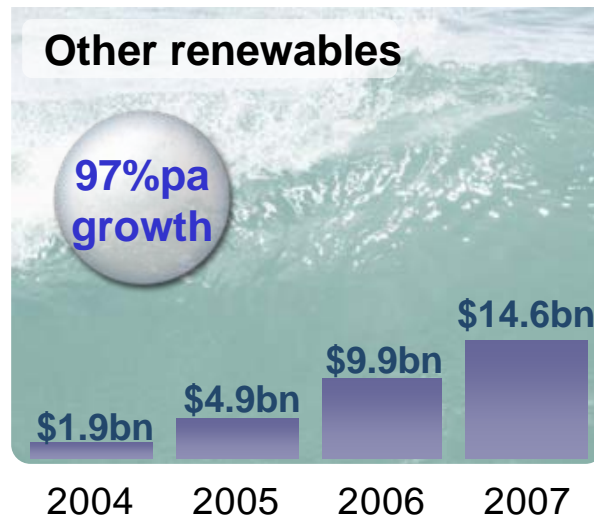
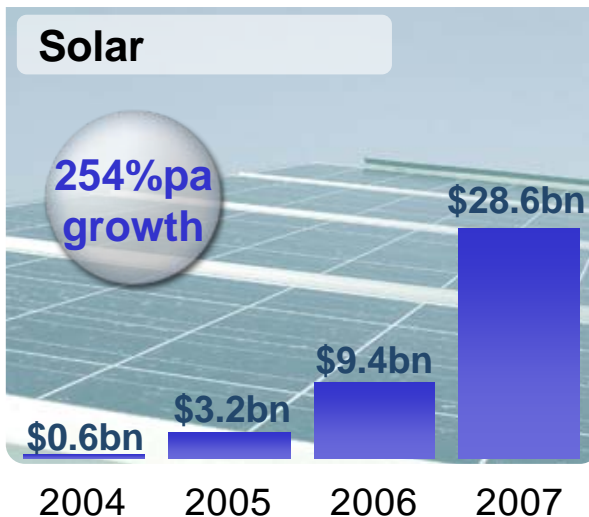
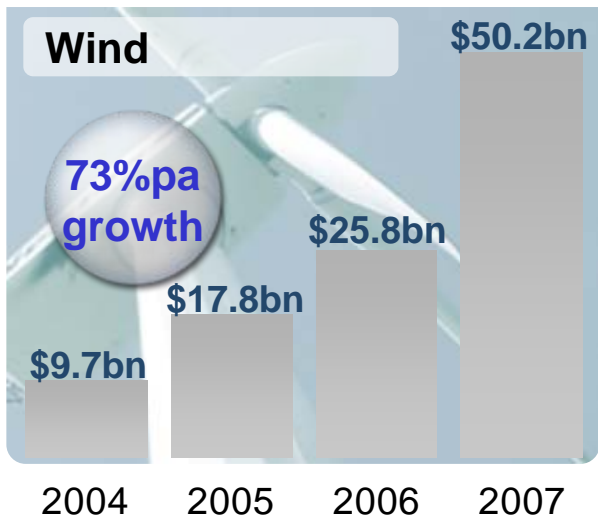
19% of global energy industry infrastructure investment

250% of commercial aircraft investment

Adjusted for reinvestment. Geared re-investment assumes a 1 year lag between VC/PE/Public Markets funds raised and re-investment in projects.

Source: New Energy Finance, IMF WEO Database, IEA WEO 2007, Boeing 2006 Annual Report

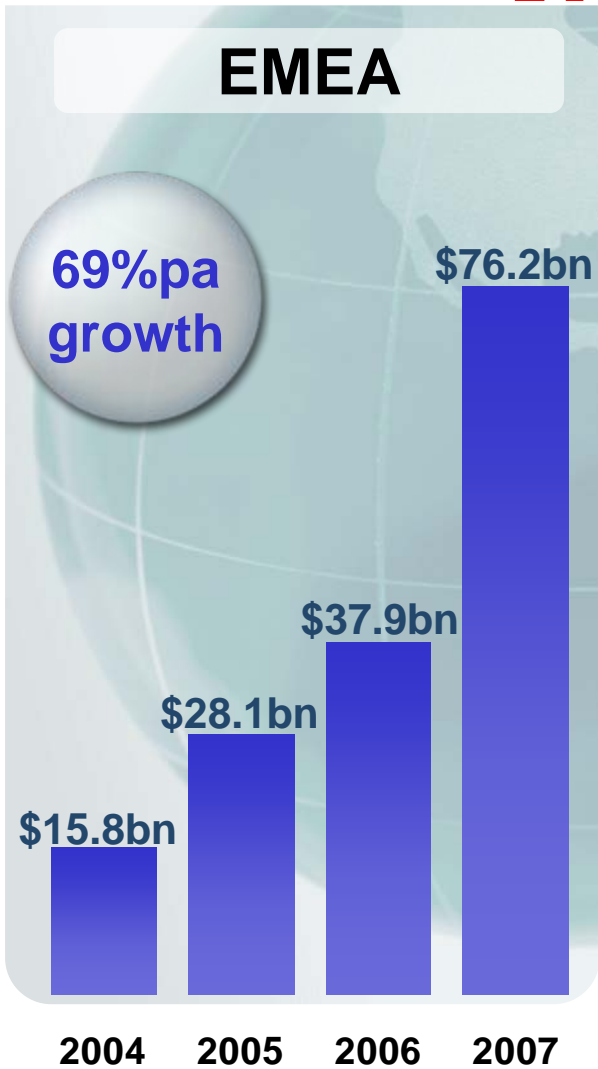
New Investment by Sector, 2004 - 2007



VC/PE, Public Markets and Asset Finance only. Excludes re-investment adjustment

Source: New Energy Finance

New Investment in Clean Energy by Region 2004 - 2007



Adjusted for reinvestment.

Geared re-investment assumes a 1 year lag between VC/PE/Public Markets funds raised and re-investment in projects.

Source: New Energy Finance



The senseless battle of
„market versus the environment“
must become a battle of
„markets for the environment“

The markets for the future are green!



Renewable energy – 2005 baseline year

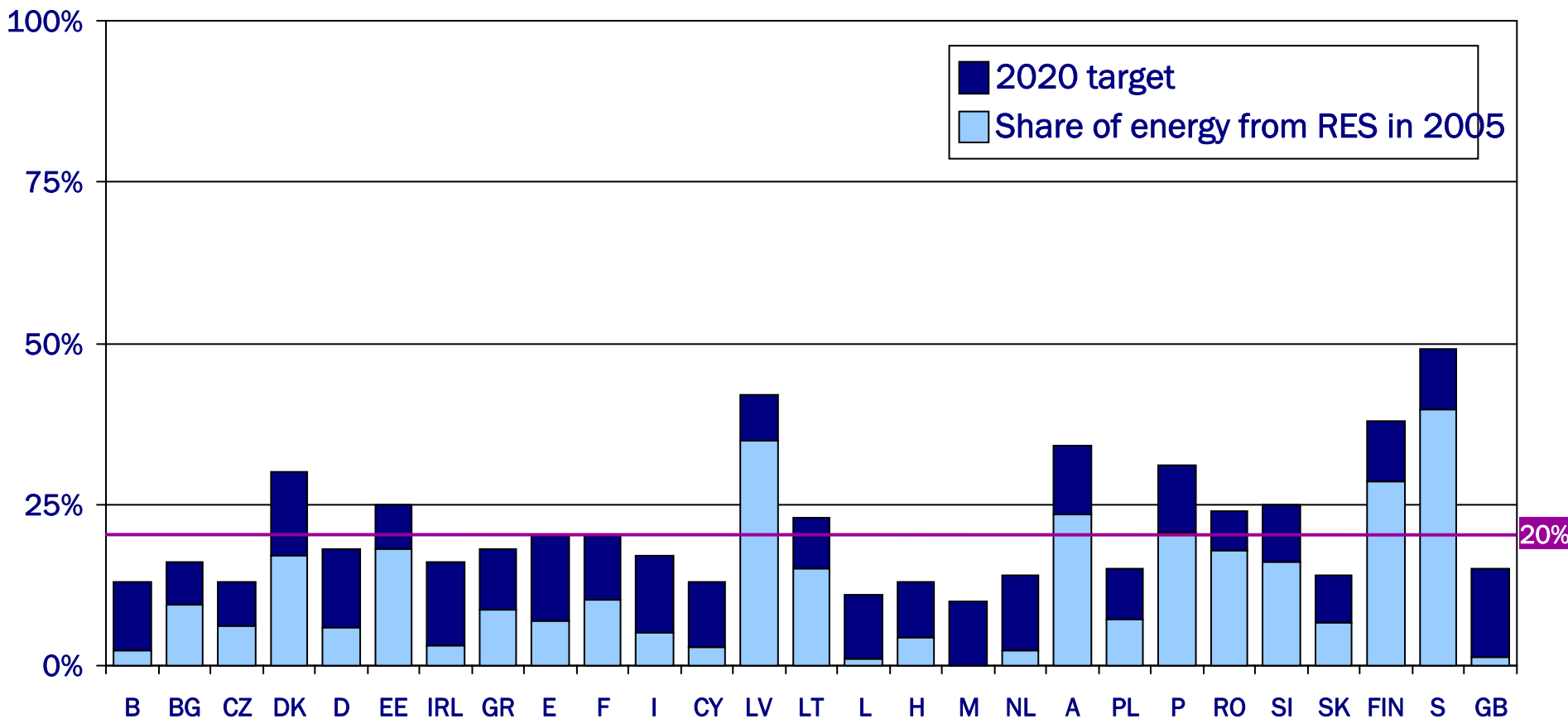
- About 15% of all EU electricity supply is generated by renewable energy sources
- About 11% of heat demand is supplied by renewable energy sources
- About 2% of transport fuel demand by renewable energy sources

2005 Total: 8,5 %

2006 Total: 9,2%



National overall targets for the share of energy from RES in final consumption of energy in 2020





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THE EUROPEAN COMMISSION

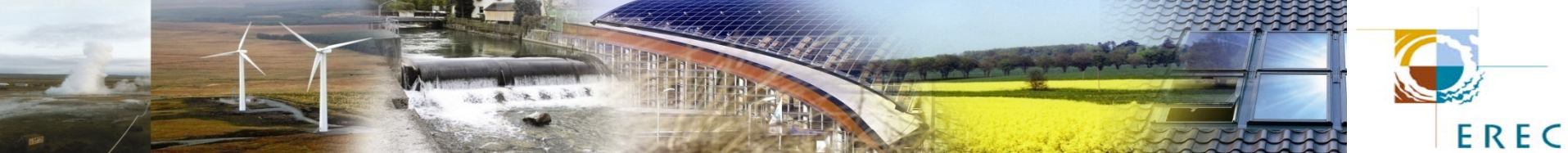


“Wind could contribute 12% of EU electricity by 2020. One third of this will more than likely come from offshore installations”
(Commission’s Energy Package 10 January 2007)

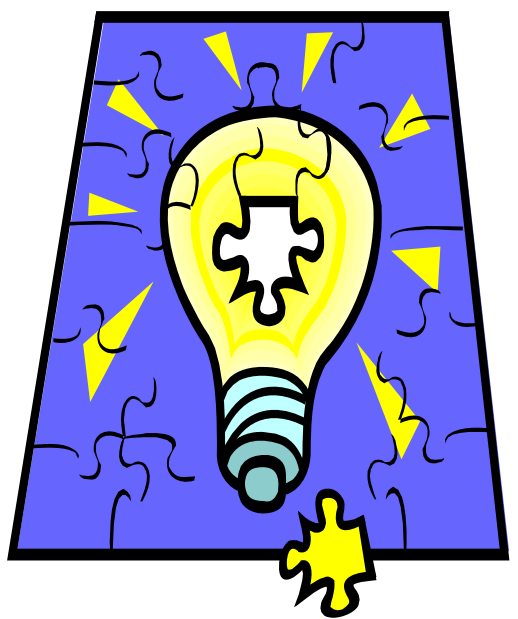


- 2020: app. 35% renewable electricity is needed to reach the 20% target for renewable energy
- Today: 15% incl. 10% large hydro and 3% wind
- Excluding large hydro the share of renewable electricity must increase from 5% to app. 25%, in 14 years depending on power demand
- From 3% (50 GW) to 11-14% (180 GW) wind power in 2020 (depending on 2020 demand)
- Offshore wind power contribution to EU demand by 2020¹ between 1.8% (20 GW) and 3.7% (40 GW)
- Without offshore wind power we will not reach the target
- Without infrastructure we will not meet the target

¹ EC baseline scenario EU demand (2020): 4163.7 TW/h



WIND ENERGY'S CONTRIBUTION TO THE TARGET



	Today	2020
RES	8.5%	➔ 20%
Electricity	15%	➔ 34%
Wind energy	3%	➔ 11-14%
Offshore	0%	➔ 1.8-3.7%

Without offshore wind, we will not reach the target
 Without infrastructure, we will not meet the target



Infrastructure is key to success



We don't have enough grid capacity to transport wind energy on our networks. We need reinforcement of our networks.





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BIG INCUMBENTS SHOULD NOT STOP US FROM ENTERING THE MARKET





Irrespective of the policy, massive investments in grids and generation plants are required.

According to IEA, the EU will invest €100 billion in transmission networks and €340 billion in distribution networks for reinforcement, asset replacements and new connections from 2001 to 2030.



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**A new way of thinking is
necessary!**



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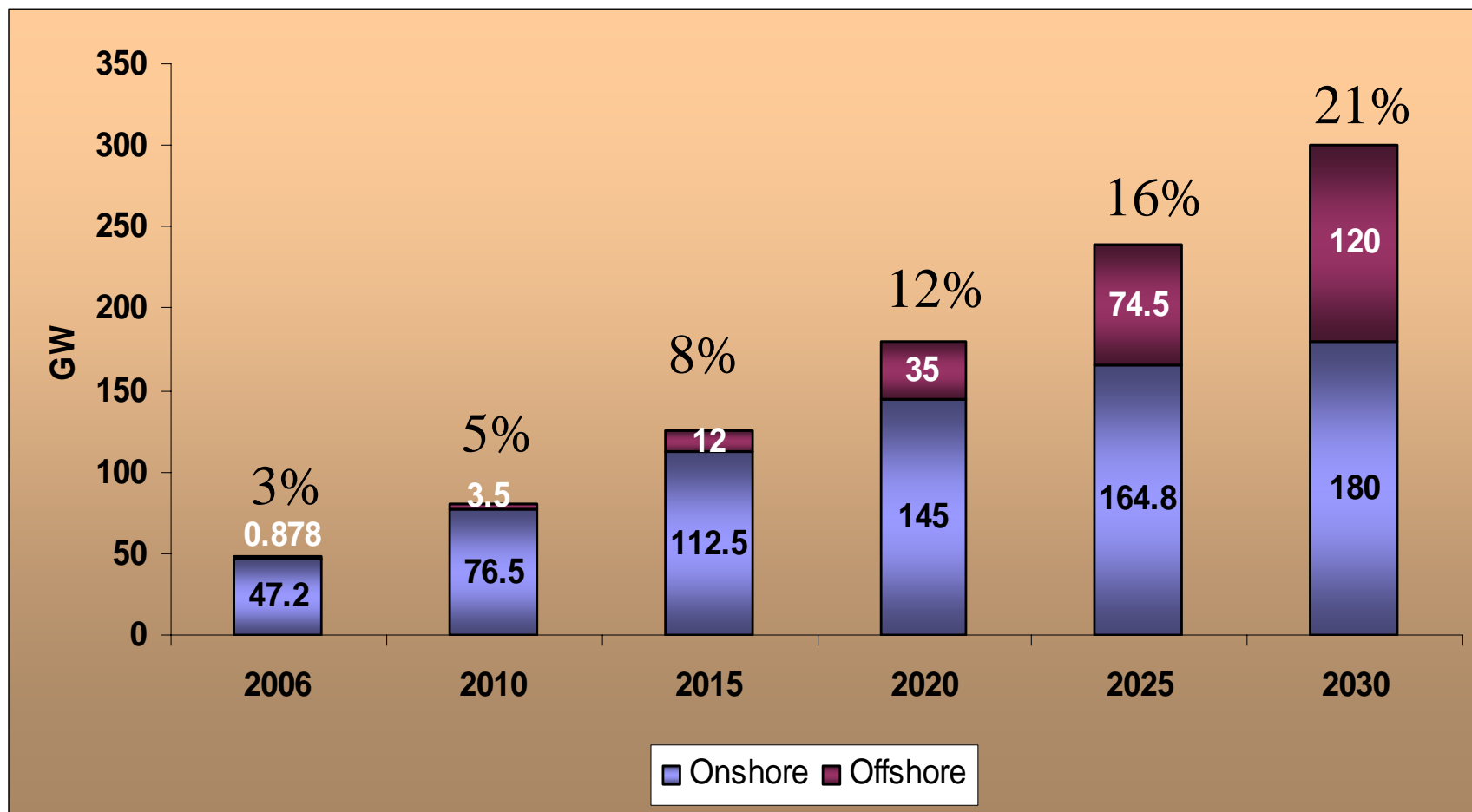


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WIND ENERGY IN EU (2006 – 2030) AND ELECTRICITY SHARE



Promotion of biofuels (1)

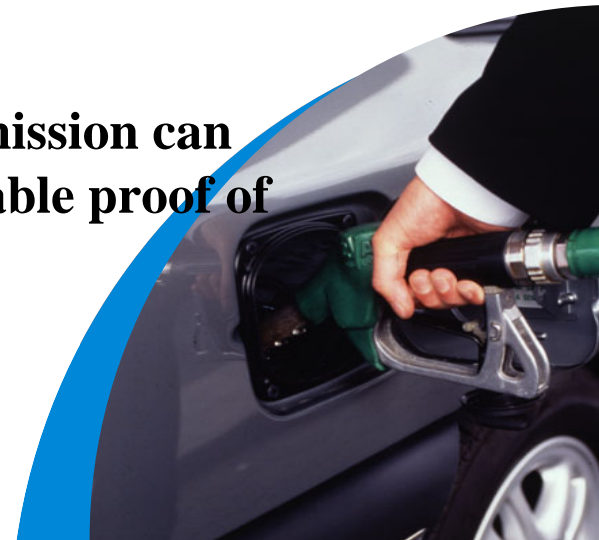
- Sustainability criteria for biofuels

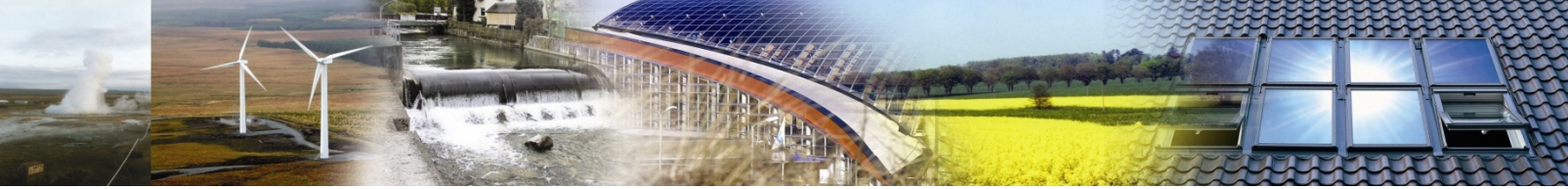
- GHG savings – minimum of 35%
- No raw material from undisturbed forests, biodiverse grassland, nature protection areas (unless taken harmlessly)
- No conversion of wetlands and continuously forested areas for biofuel production (to protect carbon stocks)
- All EU biofuels must meet “cross compliance” environmental rules



Promotion of biofuels (2)

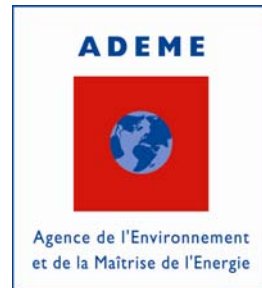
- **Consequences of not meeting the criteria:**
 - **Biofuels do not count towards targets**
 - **Not eligible for national biofuel obligations**
 - **Not eligible for tax exemptions and similar financial support**
- **Verification of compliance:**
 - **Responsibility of Member States**
 - **To reduce the administrative burden, Commission can decide that “certification schemes” give reliable proof of compliance**
 - **If so, all Member States have to accept these certificates as proof**





EU Presidency Renewable Energy Policy Forum

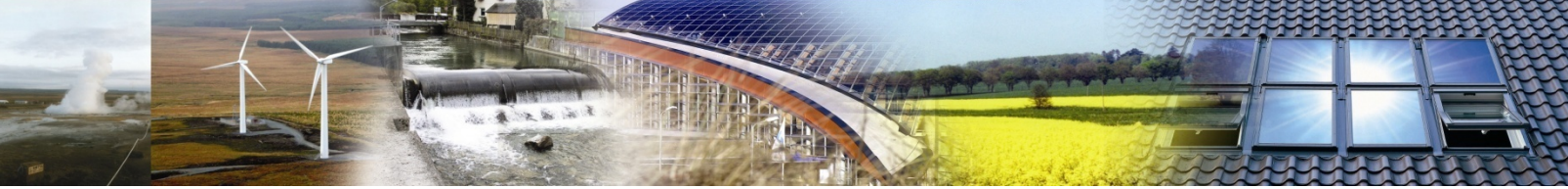
17 November 2008, Paris



Further information: www.erec.org

énergie:
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SEMAINE DES ÉNERGIES RENOUVELABLES,
DU BÂTIMENT ET DE LA MAÎTRISE
DE LA DEMANDE D'ÉNERGIE



Further information:

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