



Biofuels (RE in transport) Directive

- ❖ Adopted May 8, 2003 (2003/30)
- ❖ Implementation till end of 2004
- ❖ Countries shall ensure RE in transport
- ❖ Targets (not binding) 2% in 2005, 5.75% in 2010
- ❖ Possible reduction of fuel tax for biofuels
- ❖ Expected CO₂ reductions: about 2% (maybe less)
- ❖ relatively costly, costs of 70-160 €/ton CO₂



Implementation

- ❖ Reduce fuel tax for biofuels
- ❖ Require blend of biofuels in petrol and diesel
- ❖ Voluntary agreements of blending
- ❖ Use of biofuels in special vehicles, e.g. government vehicles

Technical: conversion of vehicles vs.
conversion/blending of biofuels



Environmental questions

- ❖ Directive criticized by environmental groups because of potentials for increased agri-pollution
- ❖ Not a solution to transport & pollution problems
- ❖ Possibilities for decentral (cleaner) fuel supply with locally produced biofuels and vehicles converted to use vegetable oils
- ❖ EU Parliament introduced other RE-forms in transport, this gives room for wind/hydro etc. carried by electricity, hydrogen, etc.



Implementation Ideas (2004)

- ❖ Map & support other RE in transport than biofuels (missing in proposal, potentially large potentials for cheaper reductions than biofuels (but not very cheap))
- ❖ Low tax on pure biofuels, no tax on organic grown
- ❖ Support technical development of conversion of cars
- ❖ Avoid blending in diesel
- ❖ Map synergies of different strategies: strengthen public transport, reduce pollution



Renewable Energy for Heat

- ❖ Important to reach EU RE-target of 12% by 2010
- ❖ Development slow: 18% increase 95-2000, target: doubling 95-2010
- ❖ Unfair competition with gas,
- ❖ Traditional biomass phased out
- ❖ Biomass, solar thermal, geothermal are key technologies. Heat pumps could help



Slow development

- ❖ European Climate Change Program recommended directive or similar
- ❖ Sep. 2002 - EU Commission report, recommend directive with targets and priority of RES-H
- ❖ Commission hearing December 2002, INFORSE recommendations



INFORSE Recommendations

- ❖ A new directive with national targets for RES-H,
- ❖ Require reduction of legal barriers to renewable energy
- ❖ Provisions for standardisation and labelling of renewable energy equipment for heat and of processed biomass fuel (such as wood pellets)
- ❖ Renewable energy solutions must be assessed when planning of new houses, renovation of houses, change of heating systems of houses as well as renovation and expansion of district heating stations. (part of this is covered by the new buildings performance directive).



- ❖ Requirements for district heating operators to purchase RE-Heat from biomass-CHP, solar thermal and geothermal heat, but not from simple biomass heating boilers or from electric ambient heat pumps
- ❖ Require the public sector to use RE heat when available
- ❖ ALTENER program / Intelligent Energy for Europe Programme should have RES-H as one of its priorities
- ❖ -the 6th RTD Framework program should prioritize efficient and clean supply of renewable energy for heating
- ❖ Improve statistics and co-operation among stakeholders on EU level
- ❖ Involvement of new EU countries and co-operation on the Pan-European, given these countries' large potentials