



# European Commission Renewable Energy Policy

The Renewables Roadmap

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Organised by INFORSE, EUFORES, EREF

[www.inforse.org/europe/seminar07\\_BXL.htm](http://www.inforse.org/europe/seminar07_BXL.htm)



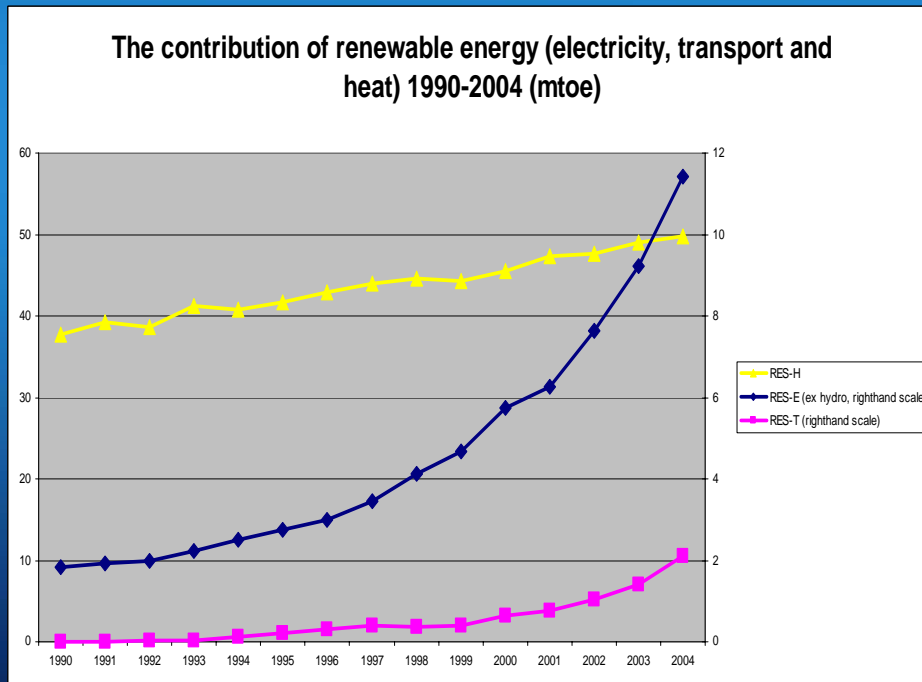
A large industrial flare, likely from an oil or gas processing facility, is shown emitting a massive, intense plume of fire and thick black smoke. The fire is bright orange and yellow, extending horizontally across the upper half of the frame. The smoke is dark and billowing, trailing behind the fire. The flare itself is a tall, lattice-structured metal tower that tapers towards the top, where the fire is burning. The background is a cloudy sky with soft, diffused light. The overall image conveys a sense of industrial activity and environmental impact.

*Sustainability, security of  
supply and  
competitiveness are the  
goals of EU energy policy*



# Sectoral trends

Differences in legislative framework for electricity, biofuels, and heating and cooling established at EU level are reflected in the development of the three sectors:



- ✓ Clear growth in electricity
- ✓ The recent start of solid growth in biofuels
- ✓ The slow growth rate for heating and cooling



# Status of heating and cooling

**almost 9% (~50mtoe)**

- ✓ **slow growth rate**
- ✓ **absence of EU legislation**
- ✓ **no coordinated approach**
- ✓ **no consistency of support mechanisms**
- ✓ **lack of appropriate policy and targets**
- ✓ **administrative barriers**



# **The way forward:**

## **An energy policy for Europe**

- **The completion of the single market**
- **Greater Community solidarity in managing energy supply risks**
- **Major reductions in CO<sub>2</sub> emissions**
- **A 20% improvement in energy efficiency by 2020**
- **A 20% renewable energy share of energy consumption by 2020**
- **A low carbon fossil fuel strategy**
- **An international energy policy**

# New Renewables Policy



- Increase share of renewables in EU energy mix from 6.5% today to 20% by 2020;
- Binding overall renewables target for each Member State;
  - Member State National Action Plans, setting share of electricity, heating & cooling and biofuels and policy measures;
  - Minimum 10% biofuels in each Member State.
- **Proposals for legislation on targets and follow-up mechanisms under preparation.**



# The impacts

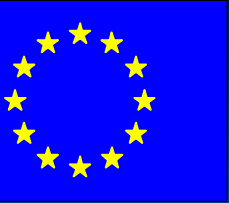
- + Annual CO<sub>2</sub> emission savings of 600-900 Mt from 2020 onwards and air quality benefits.
- + Annual reduction in fossil fuel demand of approximately 250 Mtoe from 2020 onwards, diversification and increase of domestically produced fuels.
- + Keep the global leadership role of EU renewable energy. Increase current €20 billion turnover and 300.000 jobs created.



# The impacts

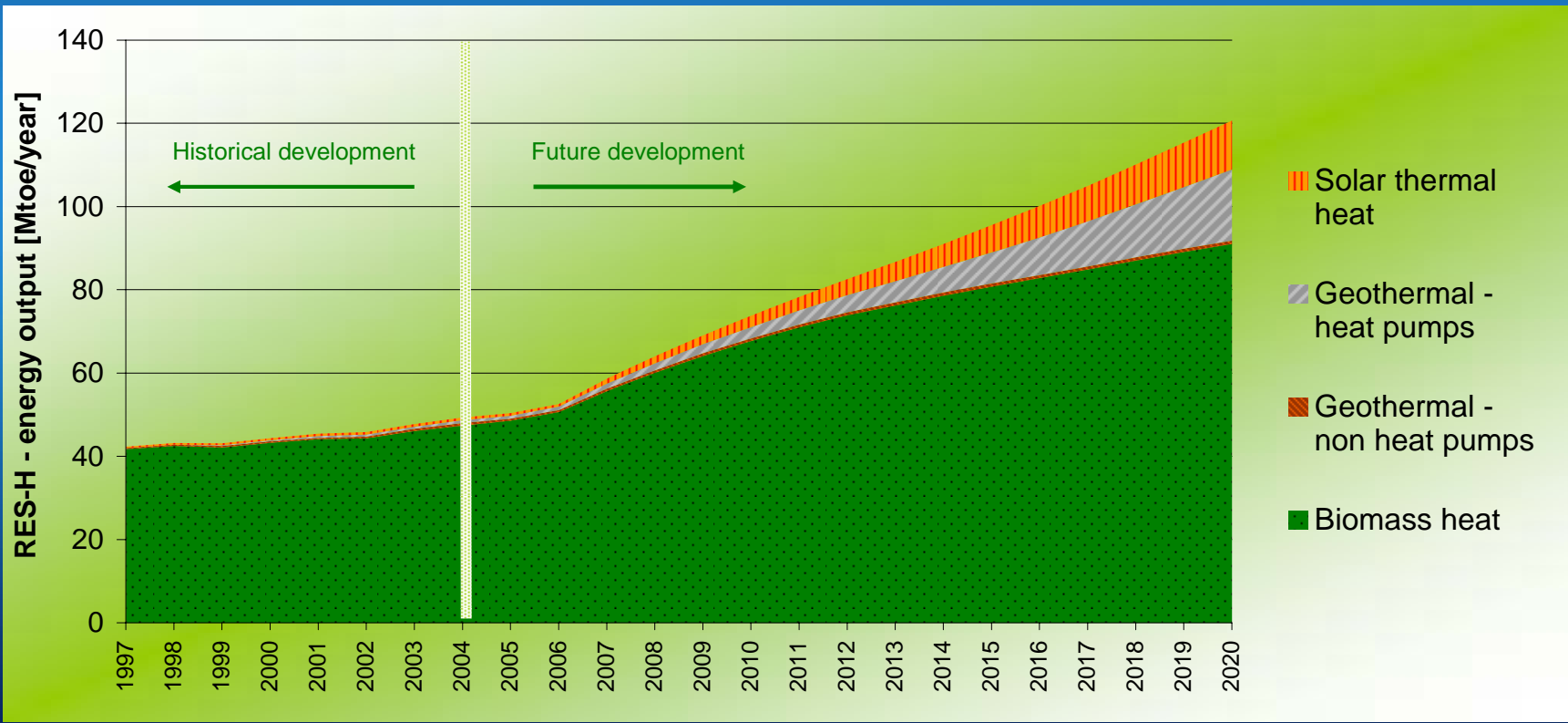
- Annual additional **costs** vary according to finance mix, technology choice, research and competition within the sector and international prices for conventional energy sources
- Costs range from €10.6bn - €18bn depending on oil price assumptions
  - The costs of renewable energy technology continue to fall substantially





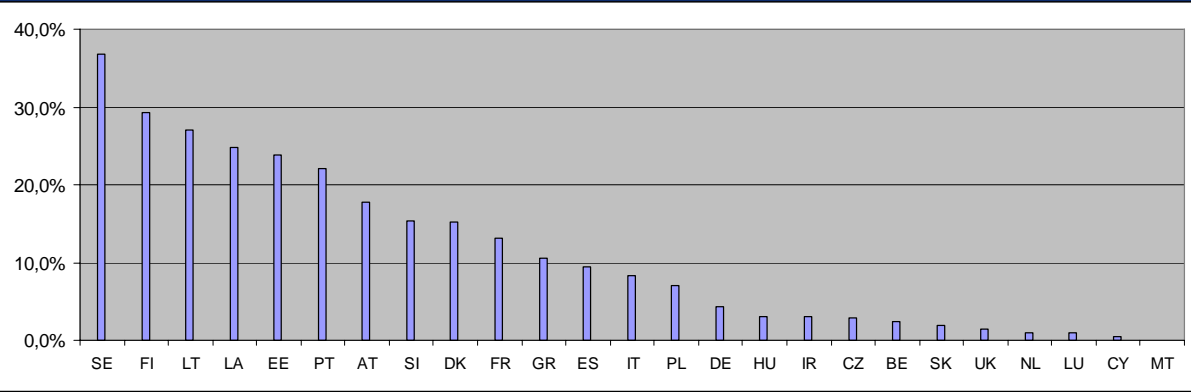
# How do we get there?

## Projections of renewable heating technology growth

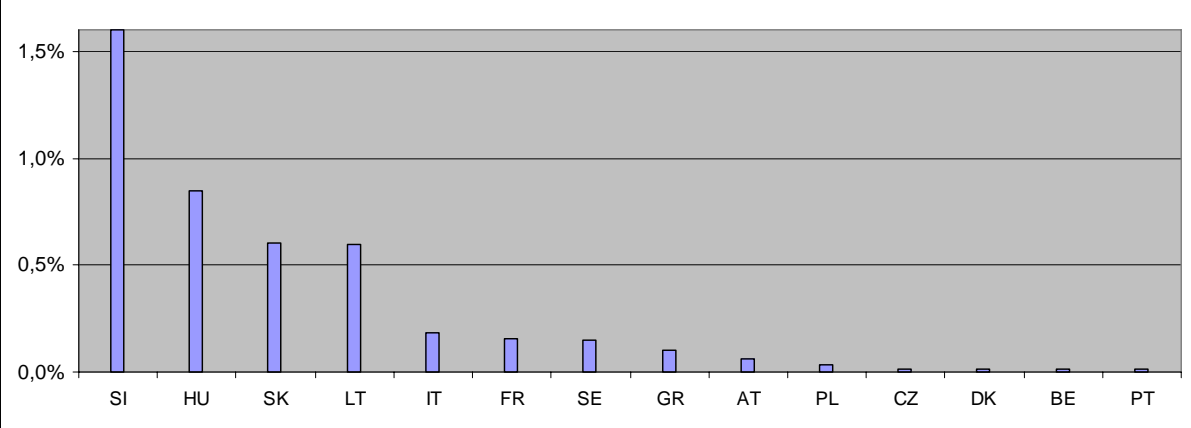




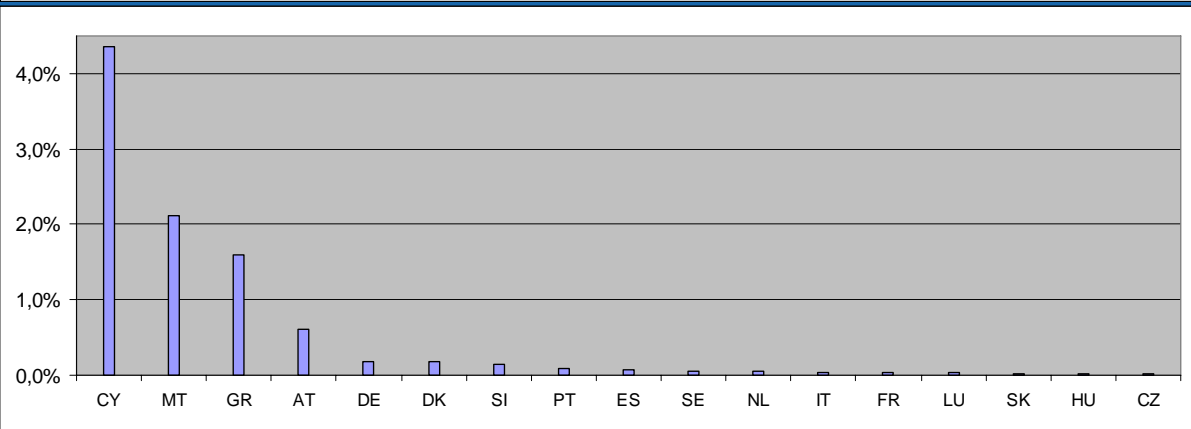
# Biomass share of heating in MS



# Geothermal share of heating in MS



# Solar thermal share of heating in MS



Source: Eurostat (Member States not shown have zero or near zero shares)



# Renewables directive 2007

- electricity, transport, heating and cooling
- national action plans
- biofuel sustainability: second generation support
- heating and cooling: removing barriers
- Economic/financial: Capital costs, uneven support
- Technological: Storage, intermittency, installation requirements
- End-use markets: Long time horizons eg in buildings
- Regulatory: Lack of continuity; administrative barriers
- Social/cultural: Lack of public awareness
- Feedstock/infrastructure: Resource competition



# Ongoing related activities

- Review buildings directive to encourage use of RES
- Study on performance of household biomass boilers and possibly set eco-design requirements
- Member States to support high-efficiency CHP plants
- Review the impact of the energy use of wood and wood residues on forest based industries
- CEN standards on quality of biomass fuels
- Possible development of an EU spot market in pellets/ chips
- Development and trade policies to promote sustainable biomass/ biofuels production

# *What next?*

- European Council conclusions of 9 March:

*Endorse the 20% binding renewables target, a binding 10% minimum biofuels target and nationally set sectoral targets...and call for a comprehensive renewables directive*

- Commission proposal, summer 2007





A wide-angle photograph of a field of yellow rapeseed flowers in full bloom. The field stretches to the horizon, with a line of green trees visible in the distance. The sky is a deep blue, filled with soft, white, and grey clouds. The text "Thank you for your attention" is centered in the upper half of the image in a white serif font.

Thank you for your attention





Today's Key question:

what are the cost  
effective measures

that should be  
established in a  
European directive?