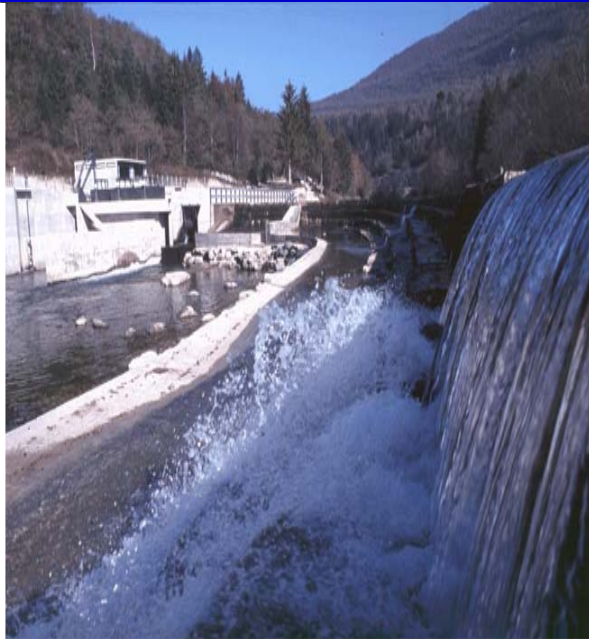




# European Commission



## The EU perspective/ Renewable Electricity

SESSA Conference  
“Investment for  
sustainability”

Madrid, 19-20 May 2005

Beatriz Yordi  
DG Energy and Transport





# Principles of the renewable electricity directive 2001/77/EC

Main objective: Promotion of electricity from renewable energy sources.



- Quantified national targets for consumption of electricity from renewable sources of energy
- National support schemes plus, if necessary, a harmonised support system
- Simplification of national administrative procedures for authorisation
- Guaranteed access to transmission and distribution of electricity from renewable energy sources



# Where are we?

## Setting of national targets

- ✓ All EU15 Member States have adopted national targets, in line with the reference values listed in Annex I of Directive 2001/77/EC.
- ✓ The New EU10 have set up national targets published in the Accession Treaty in April 2003.
- ✓ Targets have been agreed with Bulgaria and Romania:
  - Bulgaria from current 6% to 11% by 2010.
  - Romania from current 28% to 33% by 2010

## The 2010 target

- ✓ If EU-25 Member States (+BL+RO) meet these national targets, the 2010 target of 21% at 2010 will be achieved.





# Where we are?

## The Commission assessment report:

- ✓ Commission has approved COM(2004) 366 final “The share of renewable energy in the EU”.
- ✓ Commission Staff Working Document SEC(2004) 547: EU-25 country reports
- ✓ **Main conclusion: An important first step has been done, but extra efforts are still needed**
- ✓ The Council adopted in November 2004 conclusions on this Communication.
- ✓ The European Parliament is currently working on a *rapport d’initiative*.

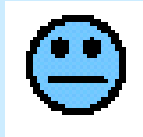




# In May 2004...



**On track: DE, DK, ES, FI**



**About to be on track: NL, UK,  
SE, AUT, BE, IE, FR**

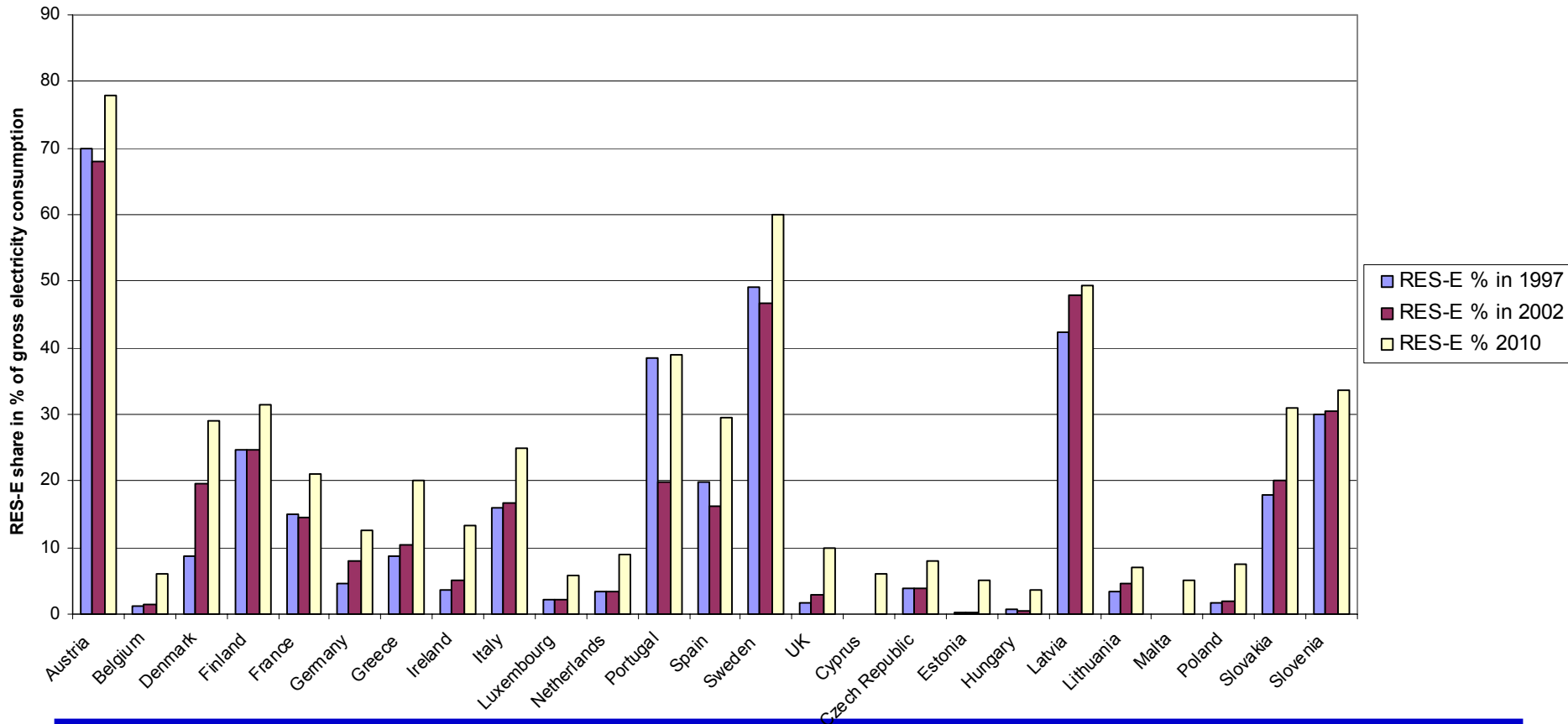


**Not on track: GR, PT**



# Differences in the progress achieving the 2010 target

## RES-E share in EU25 – current situation

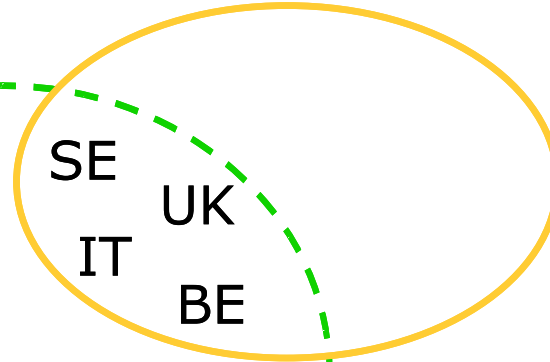
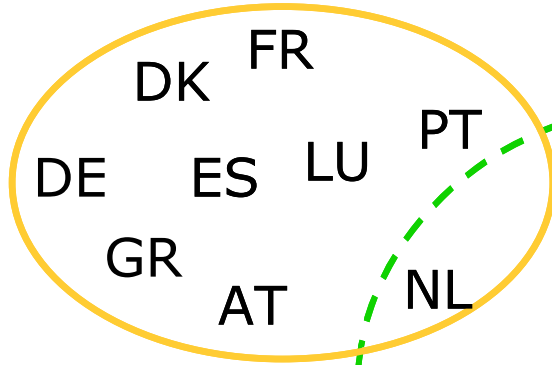




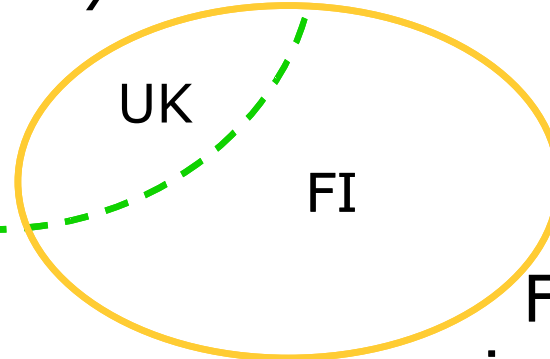
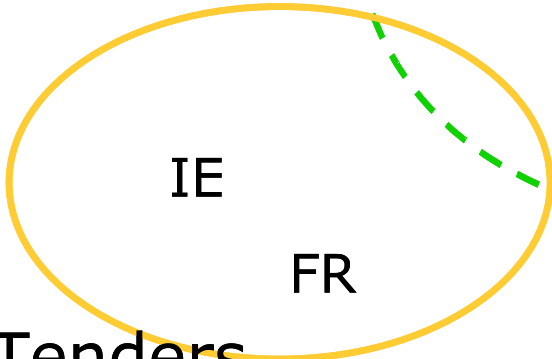
# Main policies RES-E at EU-15

Feed-in tariffs

RES-E obligation



*Certificate systems*



Tenders

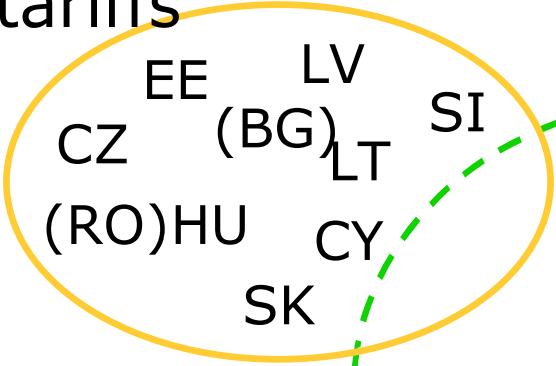
Fiscal  
incentive



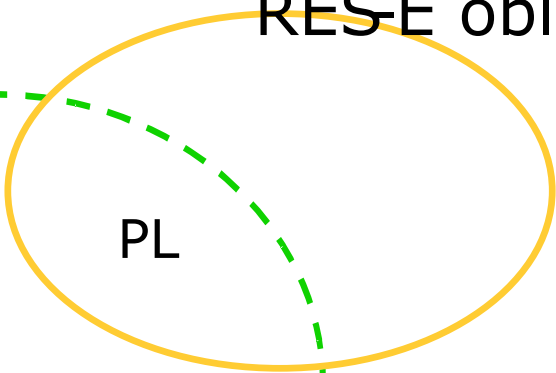


# Main policies RES-E at EU-10

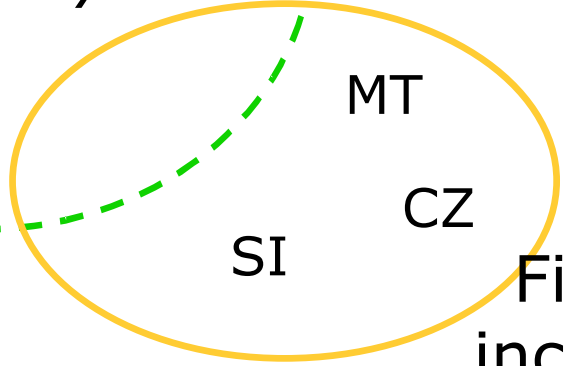
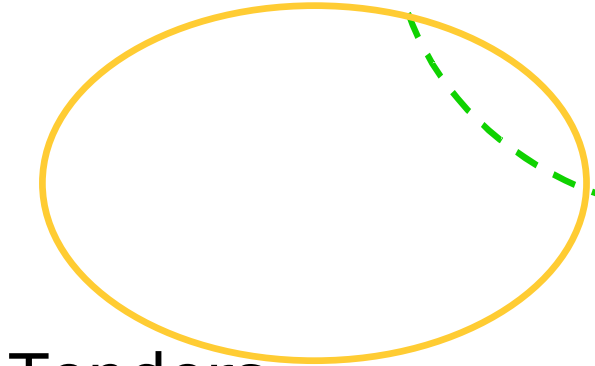
Feed in tariffs



RES-E obligation



*Certificate systems*



Fiscal incentive





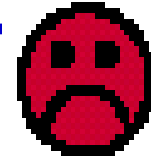
# Driving forces-others than the RES-E Directive

	Import dependency > 50 % (all fuels)	Feed-in tariffs	Quota obligation	Kyoto protocol	Decision to shut down nuclear reactors	Expected shut down of old large capacities
Cyprus	■	■		■		
Czech Republic		■*		■		
Estonia		■		■		
Hungary	■	■		■		■
Latvia	■	□		■		
Lithuania	■	■		■	■	
Malta	■					
Poland			■	■		
Slovakia	■			■	■	
Slovenia	■	□		■	■	■





# Administrative and grid barriers/EU-10



Administrative	DK, FI, DE, IE, ES, SE,	AT, BE, UK, NL	FR, GR, PT,
Grid	DK, FI, DE, ES, SE, NL,	AT, BE, UK	FR, GR, IE, PT



## Will the EU achieve its 2010 RES-E target?

**Currently implemented policies will probably result in a share of between 18% and 19%**

- ✓ **Extrapolation scenarios set out in the Commission Staff Working Document show that Europe is in its half way related to the 2010 target under current policies and measures.**
- ✓ **This is even true if reductions in total electricity demand as a result of new energy efficiency measures is taken into account.**





## *Will EU-25 achieve its targets in 2010?*

	<b>Target 2010</b>	<b>Likely achievement BAU</b>	<b><u>With additional existing policies</u></b>
<b>RES-E</b>	21%	18-19%	22-24%
<b>RES-H</b>	No % target Currently at 11%	12%	15%*
<b>Biofuels</b>	5.75%	~2-3%	~5%
<b>RES total</b>	12%	8-9%	11-12%



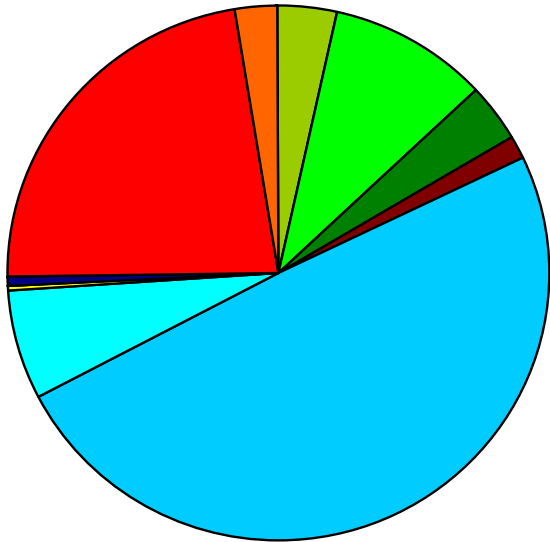


# Will the EU achieve its 2010 RES-E target?

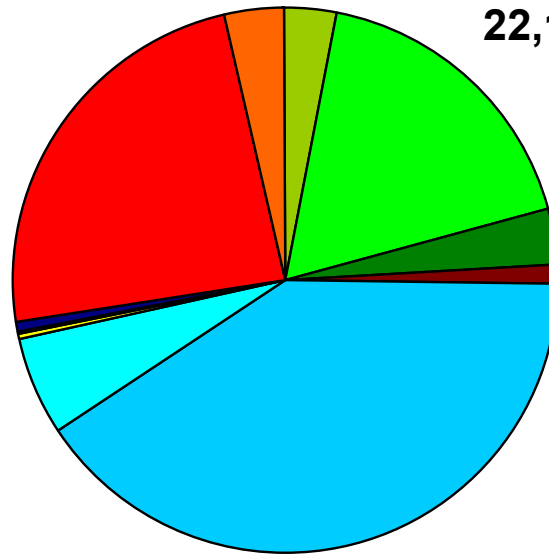
Currently implemented policies will probably result in a share of between 18% and 19%

## RES-E share in 2010 – current national policies vs. practicable scenario

EU-15 national policies - Electricity 2010 18,3%



EU-15 Policy Scenario - Electricity 2010 22,1%



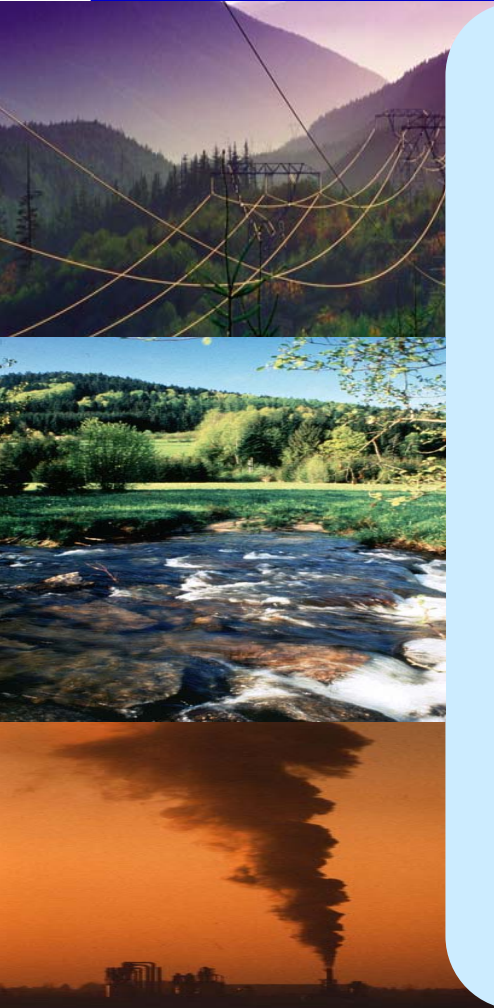
- Biogas
- Solid biomass
- Biowaste
- Geothermal electricity
- Hydro large-scale
- Hydro small-scale
- Photovoltaics
- Solar thermal electricity
- Tide & wave
- Wind onshore
- Wind offshore





# Explanations

- ✓ Progress in achieving the national targets differ strongly between the Member States.
- ✓ Not all Member States have adopted complementary proactive measures geared to national conditions.
- ✓ Success of wind energy is not outweighing the slow growth of biomass electricity.
- ✓ Biomass is lagging behind.

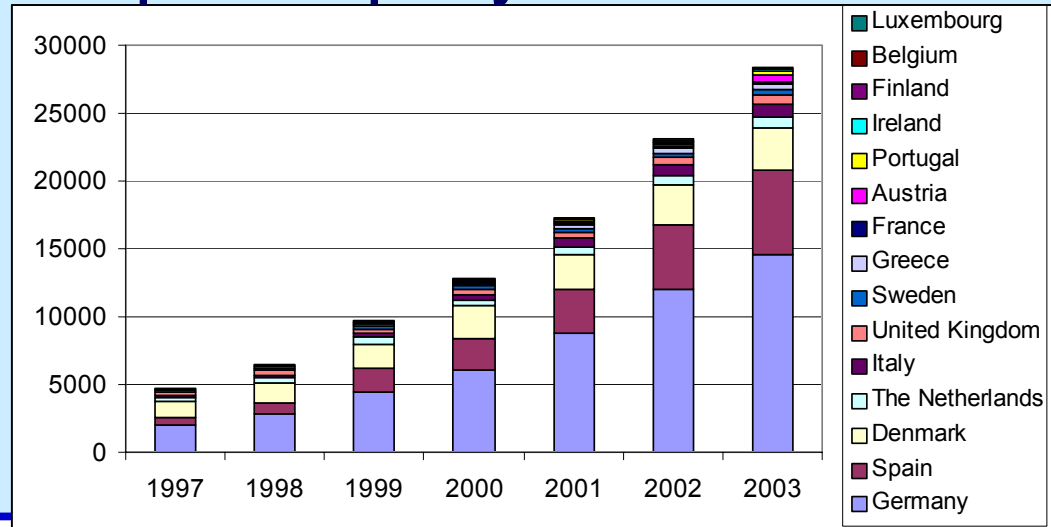




# Wind – the success story



- Installed wind energy capacity in EU15 grew 20% in the last 6 years. 34 GW total installed capacity at the end of 2004.
- In an average wind year this capacity can produce 74 TWh (= around 2.4% of EU electricity consumption)
- Germany, Spain and Denmark contribute 80% of total EU15 wind power capacity:





# Wind – the success story of three countries-the reasons.



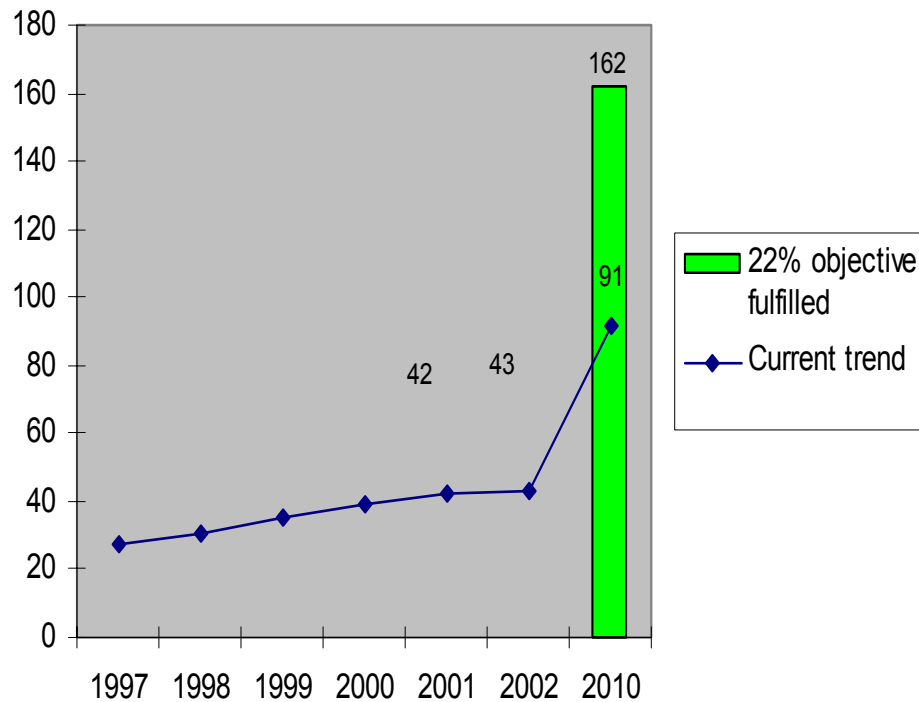
- **Implementation of attractive support system**
- **Removal of administrative barriers**
- **Guarantee of fair grid access**





# Biomass electricity

Estimation of the Biomass electricity trend and comparison with the 22% objective (TWh)



- ✓ 2010 target will only be achieved if biomass contributes 40% to it.
- ✓ Biomass electricity will need to grow by 18%/year compared to 7% during the past 7 years.
- ✓ Additional need of around 32 Mtoe – indicative figure on the biomass availability for energy purposes at EU15 level is 150 Mtoe (additional 32 Mtoe for EU10).

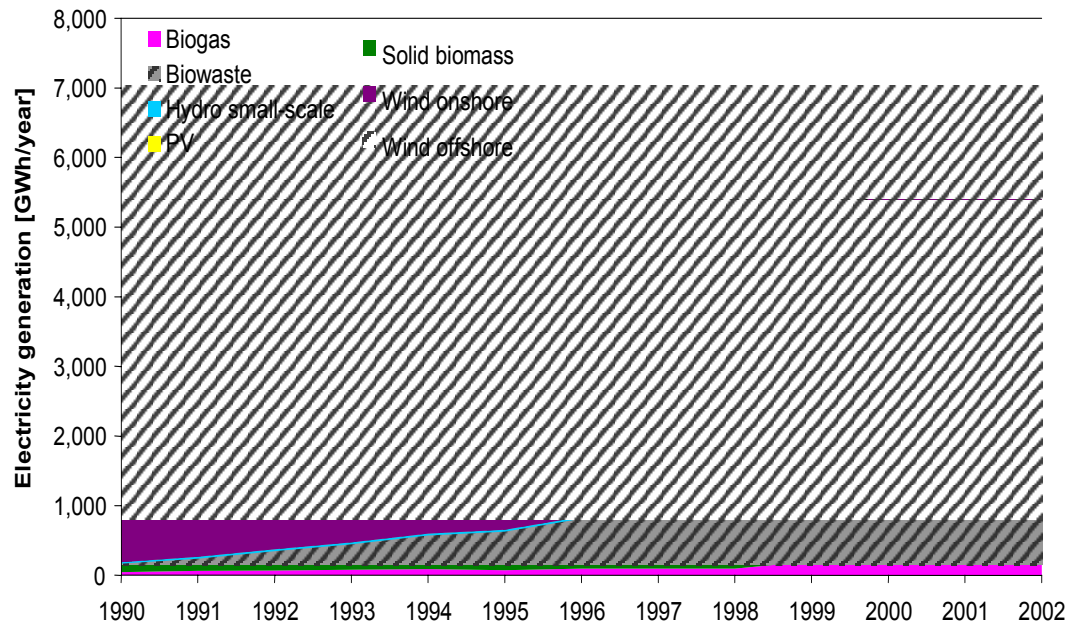




# Country reports

The Commission Staff Working Document SEC(2004) 547 gives an overview on the RES situation in the 25 Member States.

## Denmark

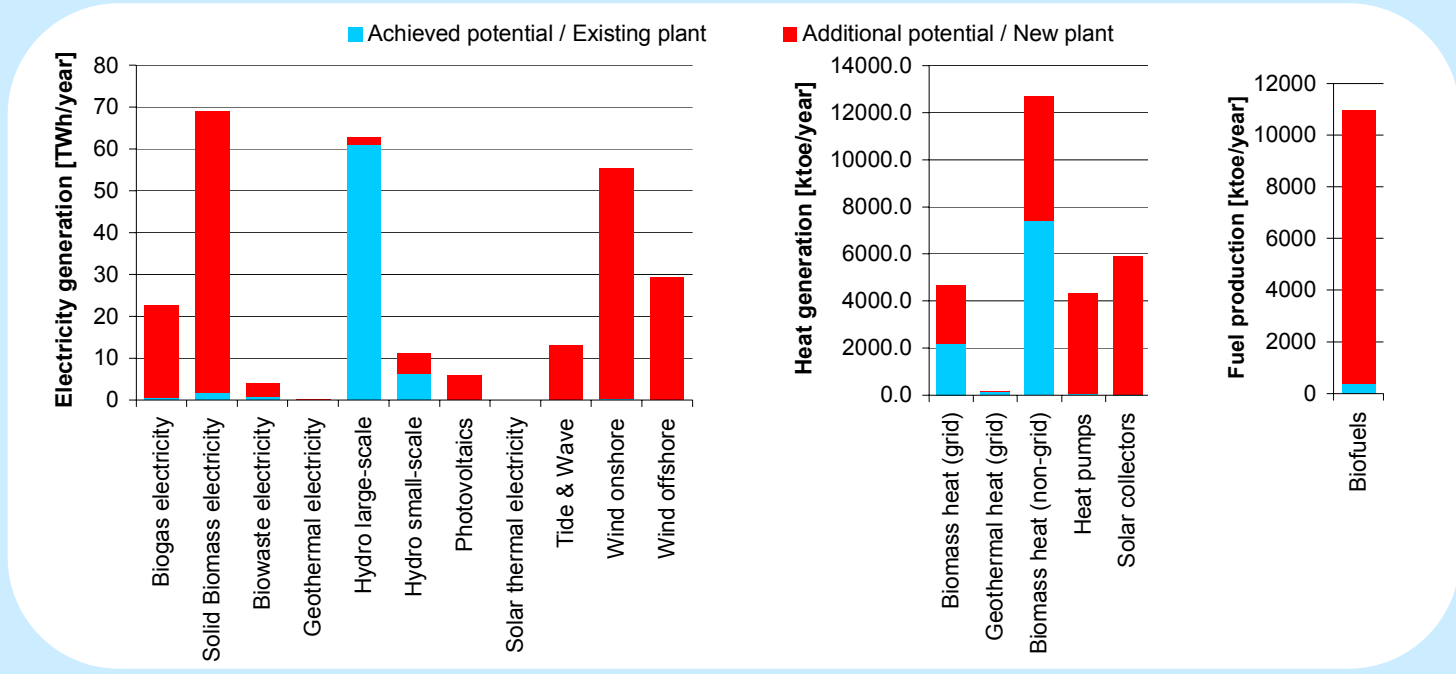




# Country reports

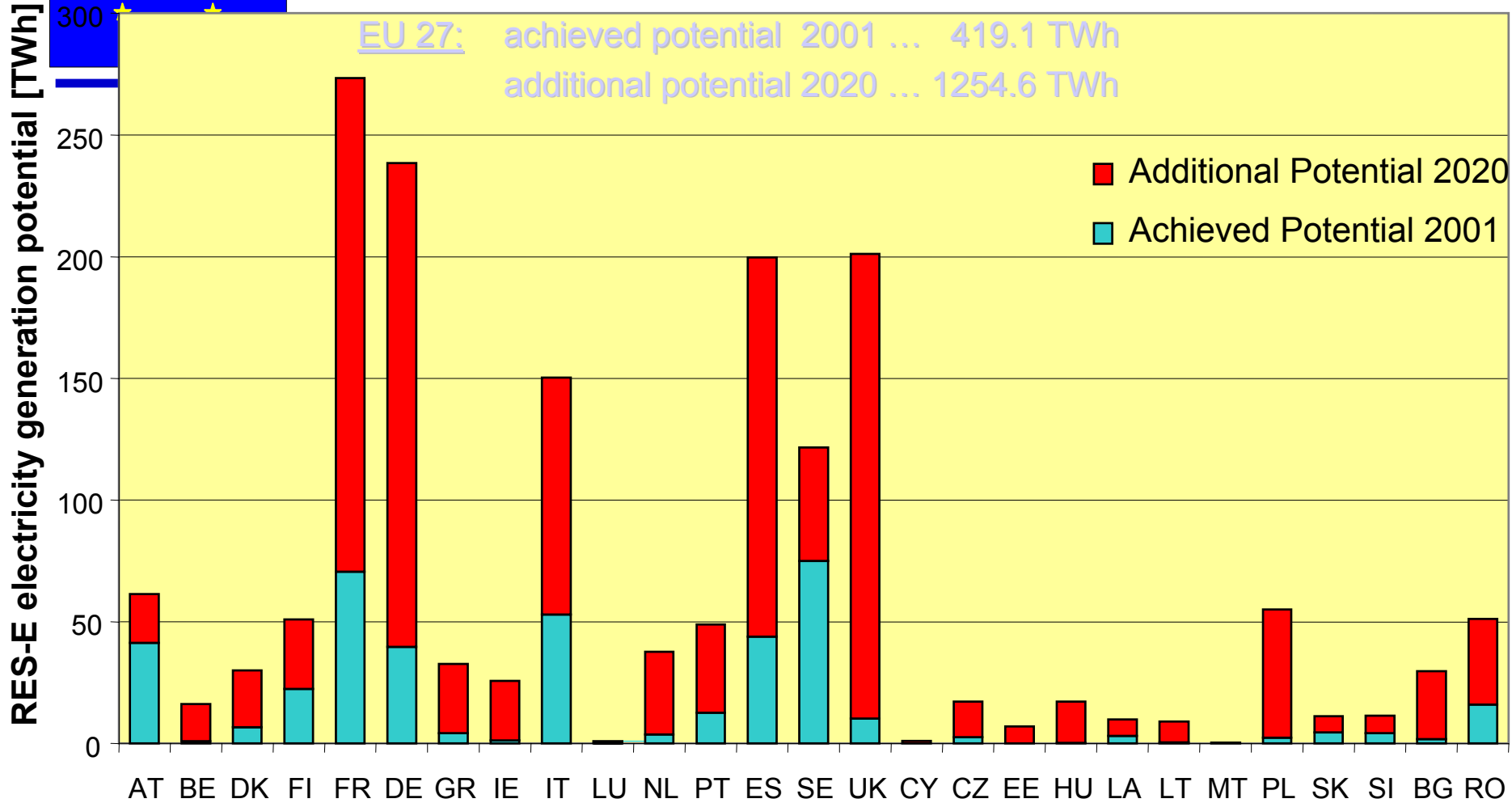
...and comparison of achieved and additional potential for RES.

France



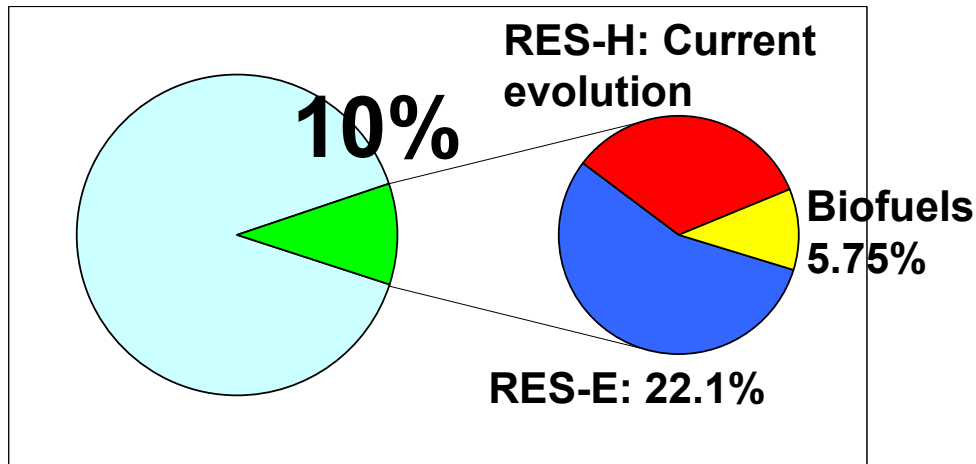
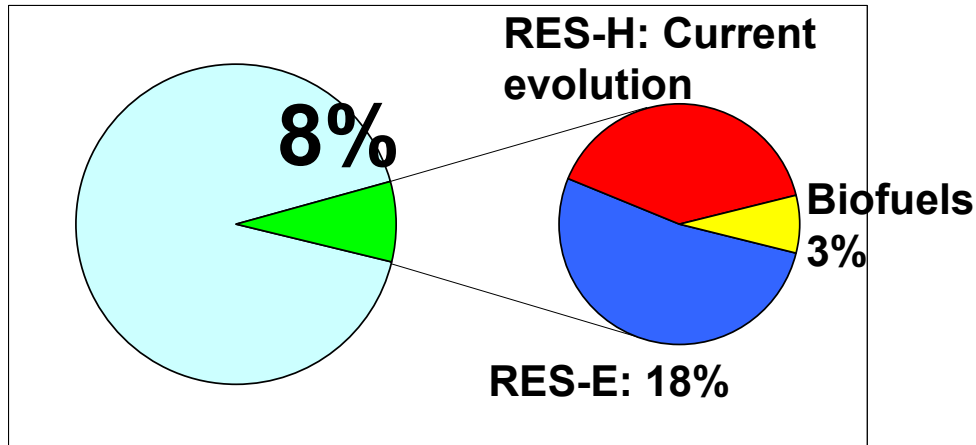


# Mid-term realisable potential for RES-E in EU-27





# The 12% RES-share in 2010



- If the targets of Directives 2001/77/EC and 2003/30/EC are met, EU will achieve a RES-share of 10% by 2010
- To achieve the 2010 target of 12%, progress in heating & cooling must provide further 2% points.





# Next steps-New Actions

COM(2004) 366 final

- **A Community action plan for biomass**
- **Developing renewable energy actions in heating & cooling**
- **Offshore wind policy**
- **Research and technological development**
- **Future Financial Perspectives**
- **Using major Community financing instruments  
Structural and cohesion funds, rural development (second pillar of the CAP)**
- **Placing biofuels on the market**





# Community plan for biomass

To reinforce the effective use of biomass for energy purposes, by the end of 2005, the Commission will bring forward a coordinated biomass plan with clear approach to securing adequate supplies of biomass through European, national and regional/local action.

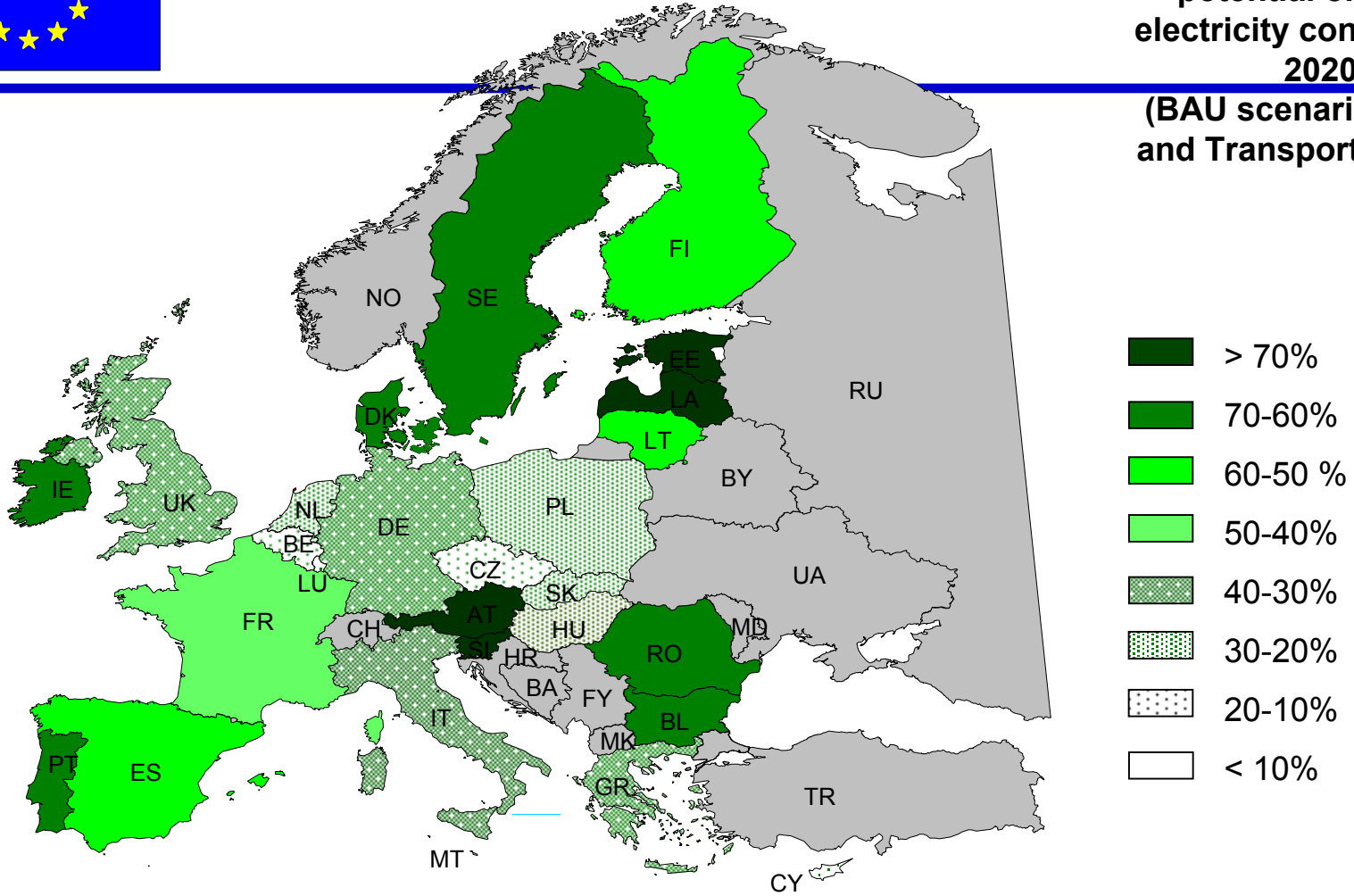


# Example: *Mid-term realisable potential for RES-E in*



## *EU-27*

Share of total RES-E potential on gross electricity consumption 2020  
(BAU scenario-Energy and Transport Outlook)





# Next steps-2020 target

COM(2004) 366 final

- The Commission acknowledges the importance of providing a longer term perspective.
- Before setting new targets, the Commission considers it necessary to more thoroughly assess the impacts of RES.
- The Commission will carry out regular reviews of progress in the development of renewable energy sources.
- Review will be carried out not later than the end of October 2005.
- In 2007, setting of a target for the period after 2010.

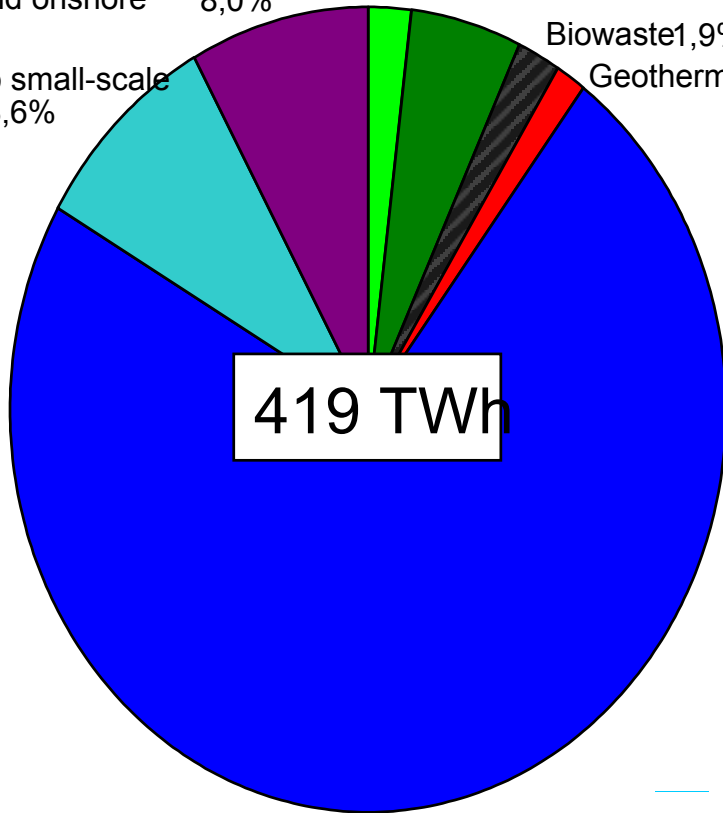




# Mid-term realisable potential for RES-E in EU-27

Biogas 1,9%

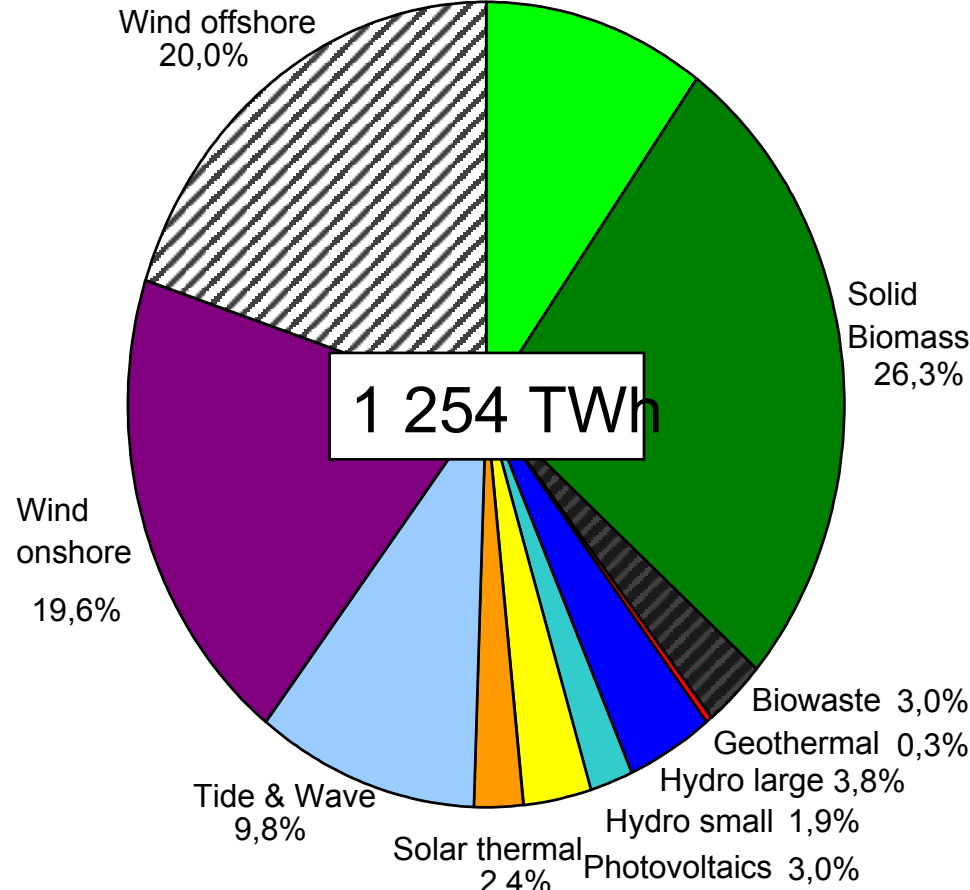
Wind offshore 0,1%  
 Wind onshore 8,0%  
 Solid Biomass 5,0%  
 Biowaste 1,9%  
 Geothermal 1,5%  
 Hydro small-scale 8,6%



419 TWh

**Achieved Potential 2001**

Biogas 10,0%



1 254 TWh

**Additional Potential 2020**





## Next steps: COM on financing of RES

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- **Before the end of 2005, the Commission would adopt a Communication on the financing of renewable energy sources. Commissioner Piebalgs announced at the EP that harmonisation is not part of the Commission plans.**





# The Communication on the Financing of RES

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## Current policy objective RES-E Directive (2001)

- **Increase the share** of green electricity from 13% to 21% of gross electricity consumption by 2010
- Directive does **not** propose a **harmonised support** system for RES-E
- The Commission may, **if necessary**, propose a **support framework**

## This framework should take into account:

- **compatibility** with the principles of the internal electricity market
- technical and geographical features of RES
- the simple and **effective and efficient promotion** of RES
- **investors' confidence** (e.g. transition period 7 years)





# The Communication on the Financing of RES

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It will cover, *inter alia*, the following items:

- Systematic description of the funding mechanisms being implemented today at EU-25.
- Effectiveness and efficiency.
- Co-existence of the renewable support schemes with the principles of the internal electricity market.
- Interaction of the support schemes on RES-E and CO2 policies.
- Contribution of renewables to the European competitiveness...





# Staying informed

## Staying informed:

[http://europa.eu.int/comm/energy/res/legislation/electricity\\_en.htm](http://europa.eu.int/comm/energy/res/legislation/electricity_en.htm)

