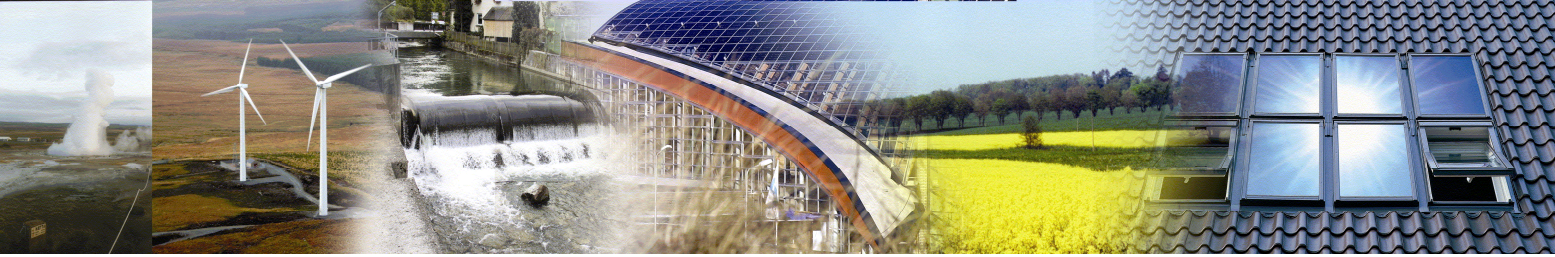


The Challenge for a European sustainable energy policy

Christine Lins
Secretary General
European Renewable Energy Council

8th Interparliamentary Meeting on RES & EE
Budapest, 7th November 2008



THE KEY DRIVERS

3x20% by 2020

20% by 2020
EFFICIENCY

By 2020 20% EU GHG

By 2020 20% RENEWABLES

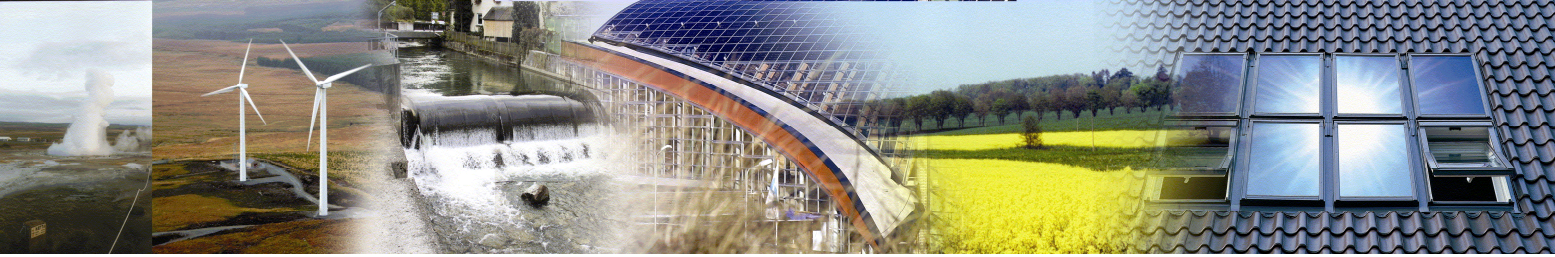
BIO-FUELS

10 % 2020
binding

E-ELECTRICITY

HEATING & COOLING

NATIONAL TARGETS and ACTION PLANS

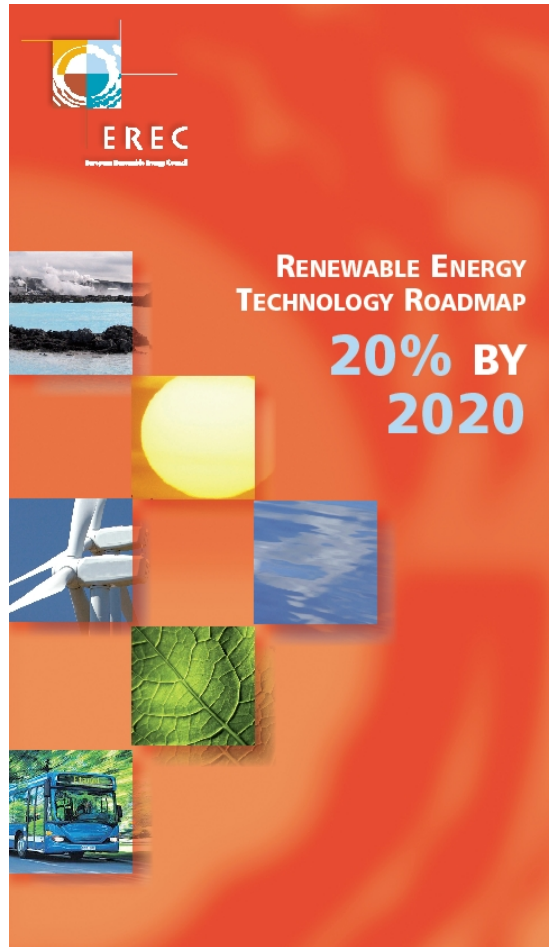
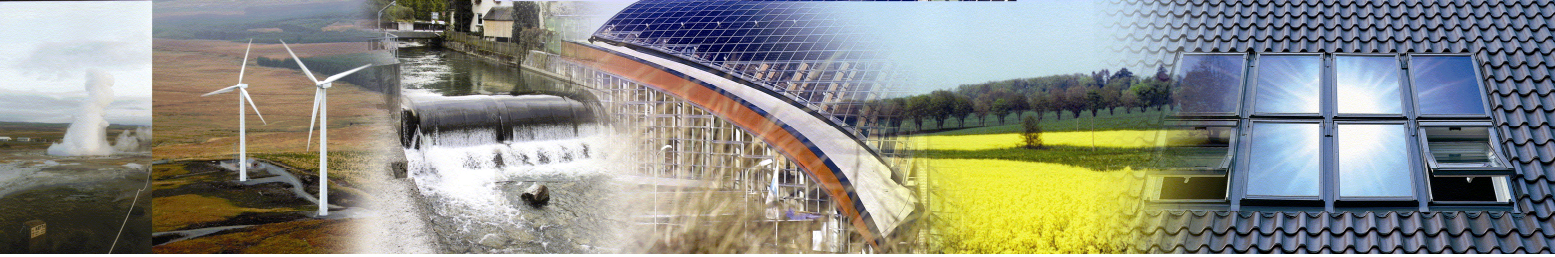


EREC - European Renewable Energy Council

Umbrella organisation representing all RES sectors:

- ✓ **AEBIOM** European Biomass Association
- ✓ **EBB** European Biodiesel Board
- ✓ **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
- ✓ **EU-OEA** European Ocean Energy Association
- ✓ **EREF** European Renewable Energy Federation
- ✓ **ESTELA** European Solar Thermal Electricity Association

Representation of European RES industry, trade & research



Renewable Energy Technology Roadmap

20 % by 2020

incl. sectorial objectives for RES-electricity, RES-heating & cooling as well as biofuels for transport



Industry projection 2020 - Electricity Consumption from renewables

Table 3: Contribution of Renewables to Electricity Consumption

	2005 Eurostat TWh	2006 Eurostat TWh	2010 Projections TWh	2020 Targets TWh
Wind	70.5	82.0	176	477
Hydro ¹	346.9	357.2	360	384
Photovoltaic	1.5	2.5	20	180
Biomass	80.0	89.9	135	250
Geothermal	5.4	5.6	10	31
Solar thermal elect.	-	-	2	43
Ocean	-	-	1	5
TOTAL RES	504.3	537.2	704	1370
Total Gross Electricity Generation EU27 (Trends to 2030-Baseline) *	3320.4	3361.5	3568	4078
(Combined RES and EE) **				3391
Share of RES	15.2%	16.0%	19.7%	33.6-40.4%

¹ - Normalised according to the formula proposed in the RES Directive

* - European Energy and Transport: trends to 2030 – update 2007, 2008, European Commission Directorate General for Energy and Transport

** - European energy and transport: Scenarios on energy efficiency and renewables, 2006, European Commission Directorate General for Energy and Transport



Industry projection 2020 - Renewable heat consumption

Table 5: Contribution of Renewables to Heat Consumption (2006-2020)

	2005 Eurostat Mtoe	2006 Eurostat Mtoe	2010 Projections Mtoe	2020 Projections Mtoe
Biomass ¹	57.5	60.0	75	120 ²
Solar thermal	0.68	0.77	1.5	12 ³
Geothermal	0.63	0.68	3	7
TOTAL RES HEAT	58.8	61.45	79.5	139
Total Heat Generation EU27 (Trends to 2030) *	579.2	570.1	583.5	606
(Combined RES and EE) **				541
Share of RES	10.2%	10.8%	13.6%	22.9-25.7%

¹ - Biomass for heat and heat derived from co-generation and district heating

² - AEBIOM (European Biomass Association) believes that a target of 147 Mtoe is achievable by 2020 for biomass for heat and derived heat

³ - Based on the assumption that 1m² of solar thermal collector area per EU inhabitant is achievable by 2020,
ESTIF's target is 21 Mtoe of solar thermal energy in 2020.

*- Includes only district heating

** - Includes all applications incl. shallow geothermal heat pumps



Industry projection 2020 - Biofuels consumption

Table 7: Contribution of Renewables to Transport Fuel Consumption

	2005 Eurostat Mtoe	2006 Eurostat Mtoe	2010 Projection Mtoe	2020 Projection Mtoe
Transportation Biofuels	3.13	5.38	16	34.0
Gasoline and oil consumption (Trends to 2030-Baseline) *	297.2	300.4	317.3	349.5
(Combined RES and EE) **				323.9
Biofuels' Share %	1.05	1.79	5.0	9.7-10.5

* - European Energy and Transport: trends to 2030 – update 2007, 2008, European Commission Directorate General for Energy and Transport

** - European energy and transport: Scenarios on energy efficiency and renewables, 2006, European Commission Directorate General for Energy and Transport



Table 8: Contribution of RES to total final energy consumption (Mtoe)

Type of energy	2005		2006		Projection 2010		Targets 2020	
	Eurostat	%	Eurostat	%		%		%
Final Energy Consumption ¹ (Trends to 2030) * (Combined RES and EE) **	1,211.5		1,214.8		1,272		1,378 1,266	
Wind	6.06	0.50	7.05	0.58	15.13	1.19	41	3.0-3.2
Hydro ²	29.82	2.46	30.71	2.53	30.95	2.43	33	2.4-2.6
Photovoltaic	0.13	0.01	0.22	0.02	1.72	0.14	15.5	1.1-1.2
Biomass	67.51	5.57	73.11	6.02	102.60	8.07	175.5	12.7-13.9
Geothermal	1.10	0.09	1.16	0.10	3.86	0.30	9.4	0.7
Solar Thermal	0.68	0.06	0.77	0.06	1.5	0.12	12	0.9-1.0
Solar Thermal elect.	0		0		0.16	0.02	2.2	0.2
Ocean	0		0		0.08	0.01	0.4	0.03
Total RES	105.3	8.69	113.02	9.30	156.0	12.3	289	20.9-22.8

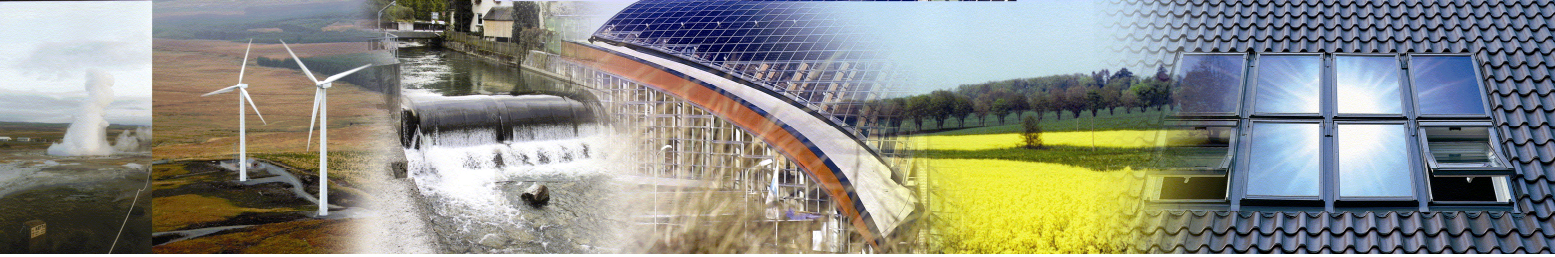
¹ - Including electricity and steam transmission/distribution losses and own consumption

² - Normalised according to the formula proposed in the RES Directive

* - European Energy and Transport: trends to 2030 – update 2007, 2008, European Commission Directorate General for Energy and Transport

** - European energy and transport: Scenarios on energy efficiency and renewables, 2006, European Commission Directorate General for Energy and Transport

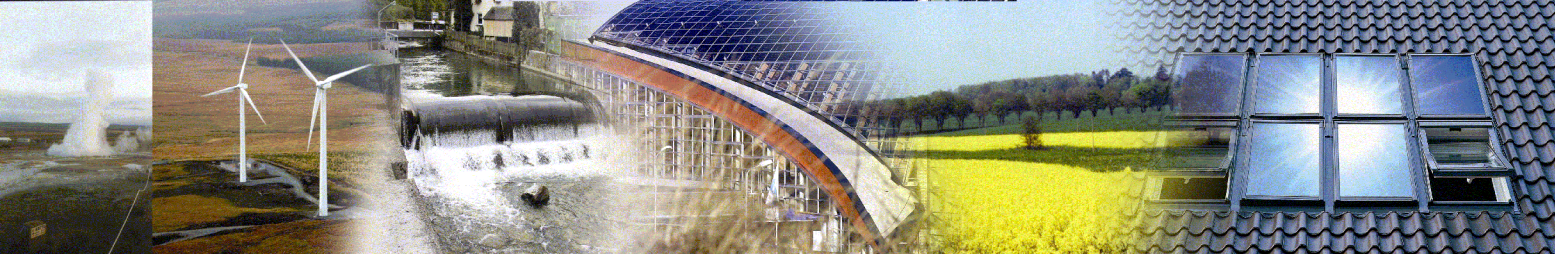
Source: EREC



EU Renewable Energy industry

- ✓ Europe is global leader in RES development
- ✓ 400.000 jobs in Europe already now
- ✓ Annual turnover of 40 billion € already now

New paradigm: Markets for the environment



Further information:

www.erec.org

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