

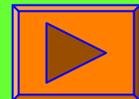


RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Communication from the European
Commission

ENERGY FOR THE FUTURE :
RENEWABLE SOURCES OF ENERGY
(White Paper for a Community Strategy
and Action Plan by 2010)
CAMPAIGN FOR TAKE-OFF
(1999-2003)



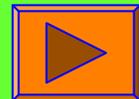


RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Background :

- Survey of all existing activities and programmes involving public and private investments in RES at the Union and Member States level
- Choice of priority sectors
- Draw up guidelines





RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF

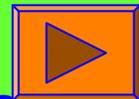


Purpose :

- Stimulate a real take-off of RES for broad market penetration
- Make progress towards the objective of 12% in 2010
- Ensure a coordinated approach throughout the Community

by :

- Implementing large scale projects in Key RES Sectors
- Sending clear signals for greater use of RES
- Encouraging private and public investments
- Launching a Renewable Energy Partnership
- Funding promotional and public relations activities



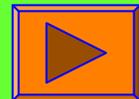


RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Key Sectors :

- **1,000,000 PV systems**
- **15 Million m² solar collectors**
- **10,000 MW of wind turbine generators**
- **10,000 MWth of combined heat and power biomass installations**
- **1,000,000 dwellings heated by biomass**
- **1,000 MW of biogas installations**
- **5 Million tonnes of liquid biofuels**



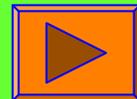


RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Key Sectors : Solar Energy

Campaign Key Actions	Estimated Installed Capacity	Estimated Total Investment Cost B€
650,000 PV systems : EU	650 MWp	2,85
350,000 PV systems : TC	350 MWp	(2,45)
15 Million m ² solar collectors	15 Mm ²	4,7



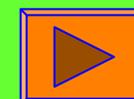


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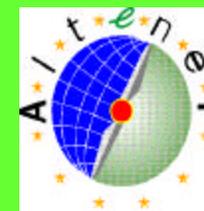
Key Sectors : Wind Energy

Campaign Key Actions	Estimated Installed Capacity	Estimated Total Investment Cost B€
10,000 MW of wind turbine generators	10,000 MW	10,1



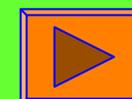


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Key Sectors : Biomass

Campaign Key Actions	Estimated Installed Capacity	Estimated Total Investment Cost B€
10,000 MWth of combined heat and power biomass installations	10,000 MWth	5,5
1,000,000 dwellings heated by biomass	10,000 MWth	4,4
1,000 MW of biogas installations	1,000 MW	1,2
5 Million tonnes of liquid biofuels	5 Million tonnes	1,25





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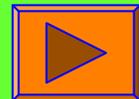


Integration of Renewable Energies :

- 100 communities aiming at 100% RES supply

Prospects for RES integration according to :

- RES Availability
- Energy consumption density per area unit
- Availability and type of energy infrastructure
- Power consumption pattern
- Size





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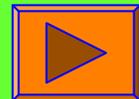


Integration of Renewable Energies :

- 100 communities aiming at 100% RES supply

Categories :

- Urban communities
- Rural communities
- Isolated communities





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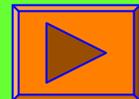


Integration of Renewable Energies :

- 100 communities aiming at 100% of RES supply

Urban communities :

- Solar input < energy consumption density
- Limited availability other RES (Wind, Biomass, Hydro)





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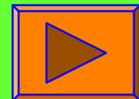


Integration of Renewable Energies :

- 100 communities aiming at 100% RES supply

Rural communities :

- Solar input $>$ or $=$ energy consumption density
- Significant availability of other RES (Wind, Biomass, Hydro)





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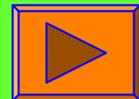


Integration of Renewable Energies :

- 100 communities aiming at 100% RES supply

Isolated areas :

- Solar input > energy consumption density
- Significant availability of other RES
- No or weak interconnection with external electric grid





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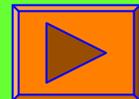
IMPLEMENTING THE CAMPAIGN

Commission's role :

- Draw up the framework
- Provide technical and financial assistance
- Help and support private and public sectors
- Involve all interested parties in promoting RES
- Coordination

Means :

- existing Community programmes and funds



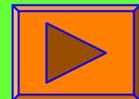


RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Partners :

- National governments
- The regions
- Municipalities and their distribution utilities
- Energy agencies
- RES developers and consumer associations
- Industry - utilities, oil companies, motor manufacturers
- Industry and farmers associations
- Financial institutions
- Domestic and external trade associations
- Non-governmental organisations



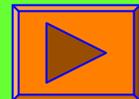


RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Involving actors in the Campaign: The “Renewable Energy Partnership”

- Partnership between the Commission and public authorities, industries and associations
- Partnership with promoters on framework agreements for the implementation of RES projects





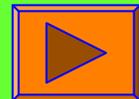
RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Involving actors in the Campaign: The “Renewable Energy Partnership”

Partnerships involving the EC and public authorities :

- Highlight EU-wide cooperation
- National, regional, local RES programmes join the CTO





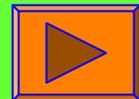
RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Involving actors in the Campaign: The “Renewable Energy Partnership”

*Partnership involving the EC and industry
or associations :*

- Industry development programmes invited to join the CTO





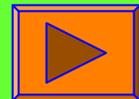
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Involving actors in the Campaign: The “Renewable Energy Partnership”

Partnerships with promoters :

- Encourage framework agreements to cement relationships among actors in implementing RES projects





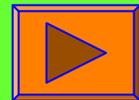
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Involving actors in the Campaign:

The “Renewable Energy Partnership”
Structure of a framework agreement :

- Background
- Objectives
- Actions
- Financial resources
- Management
- Monitoring
- Commitments by each party



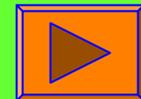


RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



COMMON FRAMEWORK UNDER ALTENER II PROGRAMME

- Campaign Logo
- Campaign Catalogue
- Campaign Awards
- Campaign Advertising
- Community Support for Projects
(ALTENER Calls for Proposals)





RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



SUPPORT AT COMMUNITY LEVEL

■ Structural funds :

1994-1999 : **300 M€** → 10,5% of 2.900 M€ → 1,5% 200 B€

2000-2003 : **487 M€** → 15% of 3250 M€ → 2,5% 130 B€

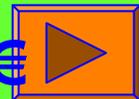
■ Research, Technological Development and Demonstration Programmes

1998-2002 : 5th RTD Framework Programme 1043 M€ for Energy

1999 : 200 M€ for Energy

60% for RES

of which : 75 % for demonstration = **95 M€**





RENEWABLE ENERGY FOR EUROPE CAMPAIGN FOR TAKE-OFF



Estimated indicative public support for the CTO in the EU (1999-2003)

Campaign Key Sectors	Estimated Total Investment Costs B€	Range of Support %	Average rate of Support %	Estimated Total Public Funding B€ (indicative)
PV in EU	2,85	35-80	45	1,2825
PV in Developing Countries	(2,45)	-	-	-
Solar Collectors	4,7	0-30	15	0,705
Wind Turbines	10,1	10-40	20	2,02
Biomass CHP	5,5	20-60	30	1,65
Domestic heating	4,4	0-20	10	0,44
Biogas	1,2	20-40	25	0,3
Biofuels	1,25	30-70	50	0,625
Total	30,05			7,7