

Call fiche for call FP7-Energy-2007-X.X.X.X

FP7 Cooperation

Energy



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What funds will be available?

- Budget 2007 : 109.3 M€ (RTD) + 128 M€ (TREN)
- Call publication : 22nd December 2006
- **Call deadlines :**
- COOP-ENERGY-2007-1-RTD: 3 May, 2007 (17:00 h)
- COOP-ENERGY-2007-2-TREN: 3 May 2007 (17:00 h)

Find detailed call and application information at: <http://cordis.europa.eu/fp7/calls/>
See our advice for making applications at www.euresearch.ch/how

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Introduction

The Energy Thematic is comprised of ten activity fields:

- ACTIVITY ENERGY.1: HYDROGEN AND FUEL CELLS
- ACTIVITY ENERGY.2: RENEWABLE ELECTRICITY GENERATION
- ACTIVITY ENERGY.3: RENEWABLE FUEL PRODUCTION
- ACTIVITY ENERGY.4: RENEWABLES FOR HEATING AND COOLING
- ACTIVITY ENERGY.5: CO₂ CAPTURE AND STORAGE TECHNOLOGIES FOR ZERO EMISSION POWER GENERATION
- ACTIVITY ENERGY.6: CLEAN COAL TECHNOLOGIES
- ACTIVITY ENERGY.7: SMART ENERGY NETWORKS
- ACTIVITY ENERGY.8: ENERGY EFFICIENCY AND SAVINGS
- ACTIVITY ENERGY.9: KNOWLEDGE FOR ENERGY POLICY MAKING
- ACTIVITY ENERGY.10: HORIZONTAL PROGRAMME ACTIONS

Glossary

WP	Work Programme
CP	Collaborative Project (LSP, SSP, SME-TP, CSA, ERANET-PLUS)
SSP	Small/medium-scale focused research projects (<€4M)
LSP	Large-scale integrating projects (>€4M)
CSA	Coordination and Support Action
RTD	Call managed by the DG-RTD
TREN	Call managed by the DG-TREN

Introduction

A common call with two parts has been published on the 22nd December 2007. One part (FP7-ENERGY-2007-1-RTD) focuses on research with a longer term perspective, with a view to accelerating technology development. The other part (FP7-ENERGY-2007-2-TREN) concentrates on research with a shorter term perspective and particularly demonstration actions (with a research element included), with the main objective of shortening the time to market for promising technologies and systems. The calls will be implemented using Collaborative Projects (CP) and Coordination and Support Actions (CSA).

Particular requirements for the evaluation for DG-RTD proposals:

- Collaborative Projects (small or medium scale focused projects) shall have a maximum requested EC contribution of 4M€. This is an eligibility criterion – proposals above this limit will not be evaluated.
- Collaborative Projects (large-scale integrating projects) shall have a requested EC contribution greater than 4M€. This is an eligibility criterion – proposals below this limit will not be evaluated.

For all details about the participation rules please consult the workprogramme.

1 ACTIVITY ENERGY.1: HYDROGEN AND FUEL CELLS

AREA ENERGY.1.1: FUEL CELLS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.1.1.1: Basic research for materials and processes for Polymer Electrolyte Membrane Fuel Cells (PEMFC)*	CP/SSP (RTD)
Topic ENERGY.2007.1.1.2: Basic research on materials and processes for High Temperature Fuel Cells (SOFC & MCFC)*	CP/SSP (RTD)
Topic ENERGY.2007.1.1.3: Innovative concepts for fuel cells*	CP/SSP (RTD)

1.2 AREA ENERGY.1.2: HYDROGEN SUPPLY

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.1.2.1: New materials and processes for advanced electrolysers*	CP/SSP (RTD)
Topic ENERGY.2007.1.2.2: New materials and processes for advanced multi-fuel processors*	CP/SSP (RTD)
Topic ENERGY.2007.1.2.3: Advanced Materials for High Temperature thermochemical processes*	CP/SSP (RTD)
Topic ENERGY.2007.1.2.4: Novel nanostructured materials for hydrogen storage*	CP/SSP (RTD)

1.3 AREA ENERGY.1.3: CROSS-CUTTING ISSUES AND HORIZONTAL ACTIVITIES

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.1.3.1: Pre-normative research to support EU and international regulatory activities	CP/SSP (RTD)

2 ACTIVITY ENERGY.2: RENEWABLE ELECTRICITY GENERATION

2.1 AREA ENERGY.2.1: PHOTOVOLTAICS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.1.1: Intermediate band (IB) materials and cells for PV	CP/SSP (RTD)
Topic ENERGY.2007.2.1.2: Dye-sensitised PV solar cells	CP/SSP (RTD)
Topic ENERGY.2007.2.1.3: Concentrating photovoltaics: cells, optics, modules	CP/LSP (RTD)
Topic ENERGY.2007.2.1.4: Research for binary thin-film photovoltaics	CP/SSP (RTD)
Topic ENERGY.2007.2.1.5: Environmental aspects of photovoltaics	CSA (support type) (RTD)
Topic ENERGY.2007.2.1.6: Alternative approaches for crystalline silicon PV	CP/SSP (RTD)
Topic ENERGY.2007.2.1.7: Secure, reliable and affordable supply of feedstock for the PV industry	CSA (support type) (TREN)
Topic ENERGY.2007.2.1.8: Improved production equipment and cost reduction	CP (TREN)
Topic ENERGY.2007.2.1.9: Innovative/improved PV manufacturing processes	CP (TREN)
Topic ENERGY.2007.2.1.10: Development and demonstration of standardized building components	CP (TREN)
Topic ENERGY.2007.2.1.11: Multiple benefits of PV systems	CP (TREN)

2.2 AREA ENERGY.2.2: BIOMASS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.2.1: Advanced gas cleaning technologies for biomass	CP/SSP (RTD)
Topic ENERGY.2007.2.2.2: Innovative technologies for efficient electricity production in biomass-fired IGCC	CP/SSP (RTD)
Topic ENERGY.2007.2.2.3: New and improved slagging and corrosion control technologies for large-scale biomass co-firing processes	CP/SSP (RTD)
Topic ENERGY.2007.2.2.4: Large-scale co-firing	CP (TREN)
Topic ENERGY.2007.2.2.5: Novel solid biofuels for electricity generation	CP (TREN)
Topic ENERGY.2007.2.2.6: High-efficiency medium-to-large scale electricity generation	CP (TREN)

2.3 AREA ENERGY.2.3: WIND

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.3.1: Development of components and systems for turbines and wind farms	CP/LSP (RTD)
Topic ENERGY.2007.2.3.2: External conditions, resource assessment and forecasting for wind energy	CP/SSP (RTD)
Topic ENERGY.2007.2.3.3: Testing, standards and certification for wind energy systems.	CP/SSP (RTD)
Topic ENERGY.2007.2.3.4: Demonstration of large scale systems for on-and off-shore wind farms	CP (TREN)

Topic ENERGY.2007.2.3.5: Integration of wind power into the European power system	CP (TREN)
Topic ENERGY.2007.2.3.6: Wind mapping for offshore applications	CP (TREN)

2.4 AREA ENERGY.2.4: GEOTHERMAL

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.4.1: Understanding and Mitigation of Induced Seismicity Associated with Geothermal Field Development	CP/SSP (RTD)

2.5 AREA ENERGY.2.5: CONCENTRATED SOLAR POWER

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.5.1: Key components for CSP	CP/SSP (RTD)
Topic ENERGY.2007.2.5.2: Using CSP for water desalination	CP/SSP (RTD) Specific International Cooperation Action
Topic ENERGY.2007.2.5.3: Low cost, high efficiency daily storage systems	CP (TREN)
Topic ENERGY.2007.2.5.4: Improve the environmental profile of the CSP installations	CP (TREN)
Topic ENERGY.2007.2.5.5: CSP: Innovative heat transfer concepts	CP (TREN)
Topic ENERGY.2007.2.5.6: Intermediate size, lower concentration ratio CSP systems	CP (TREN)

2.6 AREA ENERGY.2.6: OCEAN

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.6.1: New components and concepts for ocean energy converters	CP/SSP (RTD)
Topic ENERGY.2007.2.6.2: A strategy for ocean energy	CSA (coordination type) (RTD)
Topic ENERGY.2007.2.6.3: Pre-normative research for ocean energy	CP/SSP (RTD)

2.7 AREA ENERGY.2.7: HYDRO

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.7.1: New or improved hydro components and concepts	CP/SSP (RTD)
Topic ENERGY.2007.2.7.2: A strategy for hydropower	CSA (coordination type) (RTD)

2.8 AREA ENERGY.2.8: CROSS-CUTTING ISSUES

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.2.8.1: Solar irradiation resource assessment and forecasting	CSA (support type) (RTD)

3 ACTIVITY ENERGY.3: RENEWABLE FUEL PRODUCTION

3.1 AREA ENERGY.3.1: FIRST GENERATION BIOFUEL FROM BIOMASS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.3.1.1: Bioethanol from sugar and starch crops	CP (TREN)
Topic ENERGY.2007.3.1.2: Biodiesel from oil crops, animal tallow and used cooking oils	CP (TREN)

3.2 AREA ENERGY.3.2: SECOND GENERATION FUEL FROM BIOMASS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.3.2.1: Pre-treatment of lignocellulosic biomass for ethanol production	CP/SSP (RTD)
Topic ENERGY.2007.3.2.2: New and advanced technologies for hydrolysis and/or fermentation of lignocellulosic biomass	CP/SSP (RTD)
Topic ENERGY.2007.3.2.3: High purity syngas cleaning technologies for biofuels	CP/SSP (RTD)
Topic ENERGY.2007.3.2.4: Biological conversion of syngas into liquid biofuels	CP/SSP (RTD)
Topic ENERGY.2007.3.2.5: Synthetic biofuels via gasification	CP (TREN)
Topic ENERGY.2007.3.2.6: Hydrogenation of oils and fats	CP (TREN)
Topic ENERGY.2007.3.2.7: Identifying research needs and technological opportunities for biofuels production in Latin America	CSA (support type) (RTD) Specific International Cooperation Action

3.3 AREA ENERGY.3.3: BIOREFINERY

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.3.3.1: Forest-based biorefinery	CP/LSP (RTD)
Topic ENERGY.2007.3.3.2: New uses for glycerine in biorefineries	CP/SSP (RTD)
Topic ENERGY.2007.3.3.3: Developing biorefinery concepts	CSA (support type) (RTD)

3.4 AREA ENERGY.3.4: BIOFUELS FROM ENERGY CROPS

For this Area, no topics are open in calls published in 2007

3.5 AREA ENERGY.3.5: ALTERNATIVE ROUTES TO RENEWABLE FUEL PRODUCTION

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.3.5.1: Fuel production using solar radiation	CP/SSP (RTD) Future and Emerging Technologies topic

3.6 AREA ENERGY.3.6: BIOFUEL USE IN TRANSPORT

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.3.6.1: Demonstration of liquid and gaseous biofuels use in transport/ vehicles	CP (TREN)

3.7 AREA ENERGY.3.7: CROSS-CUTTING ISSUES

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.3.7.1: Harmonisation of biomass resource assessment	CSA (coordination type) (RTD)
Topic ENERGY.2007.3.7.2: Marine biomass	CSA (support type) (RTD)
Topic ENERGY.2007.3.7.3: Standardisation and sustainability issues	CSA (support type) (TREN)
Topic ENERGY.2007.3.7.4: Promotion and dissemination	CSA (support type) (TREN)

4 ACTIVITY ENERGY.4: RENEWABLES FOR HEATING AND COOLING

4.1 AREA ENERGY.4.1: LOW/MEDIUM TEMPERATURE SOLAR THERMAL ENERGY

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.4.1.1: Collector design and components	CP (TREN)
Topic ENERGY.2007.4.1.2: Small scale thermal cooling units	CP (TREN)
Topic ENERGY.2007.4.1.3: Small distributed systems for seawater desalination	CP (TREN)
Topic ENERGY.2007.4.1.4: Large scale systems for industrial heat processes	CP (TREN)

4.2 AREA ENERGY.4.2: BIOMASS

For this Area, no topics are open in calls published in 2007

4.3 AREA ENERGY.4.3: GEOTHERMAL ENERGY

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.4.3.1: Improved ground source heat pumps	CP (TREN)
Topic ENERGY.2007.4.3.2: Improved underground systems	CP (TREN)

4.4 AREA ENERGY.4.4: CROSS-CUTTING ISSUES

	Funding Scheme and Details
Topic ENERGY.2007.4.4.1: Advanced compact storage systems	CP (TREN)

5 ACTIVITY ENERGY.5: CO₂ CAPTURE AND STORAGE TECHNOLOGIES FOR ZERO EMISSION POWER GENERATION

5.1 AREA ENERGY.5.1: CO₂ CAPTURE

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.5.1.1: Advanced pre-combustion capture techniques	CP/LSP (RTD)
Topic ENERGY.2007.5.1.2: Fluid bed based capture techniques	CP/SSP (RTD)
Topic ENERGY.2007.5.1.3: Advanced separation techniques	CP/SSP (RTD)
Topic ENERGY.2007.5.1.4: Separation techniques in gaseous fuel power generation (RTD)	CP/SSP (RTD)

5.2 AREA ENERGY.5.2: CO₂ STORAGE

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.5.2.1: Development of a suitable methodology for the qualification of deep saline aquifers for CO ₂ storage	CP/LSP (RTD)

6 ACTIVITY ENERGY.6: CLEAN COAL TECHNOLOGIES

6.1 AREA ENERGY.6.1: CONVERSION TECHNOLOGIES FOR ZERO EMISSION POWER GENERATION

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.6.1.1: Solid fuel gasification development - improvement of gasifier technologies	CP (TREN)

6.2 AREA ENERGY.6.2: COAL-BASED POLY-GENERATION

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.6.2.1: Poly-generation concepts for coal fired power plants	CP (TREN)

CROSS-CUTTING ACTIONS BETWEEN ACTIVITIES ENERGY.5 AND ENERGY.6 (Activity ENERGY.5&6)

AREA ENERGY.5&6.1: POWER GENERATION TECHNOLOGIES FOR INTEGRATED ZERO EMISSION SOLUTIONS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.5&6.1.1: Feasibility study and development of an integrated solution for a large scale zero emission fossil fuel power plant	CP/LSP (RTD)

AREA ENERGY.5&6.2: CROSS CUTTING AND REGULATORY ISSUES

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.5&6.2.1: Support to regulatory activities for CO ₂ capture and storage	CSA (support type) (RTD)
Topic ENERGY.2007.5&6.2.2: Support to regulatory activities for zero emission power generation	CSA (support type) (TREN)
Topic ENERGY.2007.5&6.2.3: Socio-economic assessment of pathways for the deployment of CCS in Europe	CSA (support type) (RTD)
Topic ENERGY.2007.5&6.2.4: Initiating a CO ₂ value chain in the energy sector using early opportunities	CP (TREN)
Topic ENERGY.2007.5&6.2.5: Extending the value chain for GHG emissions other than CO ₂ associated with coal production and use	CP (TREN)
Topic ENERGY.2007.5&6.2.6: Support to international collaboration in zero emission power generation	CSA (support type) (RTD) Specific International Cooperation Action

7 ACTIVITY ENERGY.7: SMART ENERGY NETWORKS

7.1 AREA ENERGY.7.1: DEVELOPMENT OF INTER-ACTIVE DISTRIBUTION ENERGY NETWORKS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.7.1.1: Develop and validate innovative control strategies and network architectures for active networks with large-scale penetration of renewables sources and distributed generation	CP/LSP (RTD)
Topic ENERGY.2007.7.1.2: Develop new tools to simulate smart distribution networks	CP/SSP (RTD)

7.2 AREA ENERGY.7.2: PAN-EUROPEAN ENERGY NETWORKS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.7.2.1: Simulation and state estimation of smart electricity transmission networks	CP/LSP (RTD)

7.3 AREA ENERGY.7.3: CROSS CUTTING ISSUES AND TECHNOLOGIES

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.7.3.1: Electricity network assets management	CSA (coordination type) (RTD)
Topic ENERGY.2007.7.3.2: The value of innovative storage solutions for smart networks	CSA (small or medium scale focused project) (RTD)
*Topic ENERGY.2007.7.3.3: Stepping up the cooperation of national and regional research activities on Smart Energy Networks	CSA under the ERA-NET scheme
Topic ENERGY.2007.7.3.4: Analysis and scenarios of energy infrastructure evolution	CP (TREN)
Topic ENERGY.2007.7.3.5: More efficient integration of renewable energy into future infrastructures	CP (TREN)

* **Note that these topics are open in call FP7-ERANET-2007-RTD, which is described in Annex 4 of the Work Programme, along with more details of the ERA-Net scheme.**

8 ACTIVITY ENERGY.8: ENERGY EFFICIENCY AND SAVINGS

8.1 AREA ENERGY.8.1: EFFICIENT ENERGY USE IN THE MANUFACTURING INDUSTRY

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.8.1.1: Manufacturing industry: wastes and waste heat recovery and transfer	CP (TREN)
Topic ENERGY.2007.8.1.2: Manufacturing industry: SMEs energy innovation	CP (TREN)

8.2 AREA ENERGY.8.2: HIGH EFFICIENCY POLY-GENERATION

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.8.2.1: High efficiency poly-generation - applications with renewable energies	CP (TREN)

8.3 AREA ENERGY.8.3: LARGE-SCALE INTEGRATION OF RENEWABLE ENERGY SUPPLY AND ENERGY EFFICIENCY IN BUILDINGS: ECOBUILDINGS

For this Area, no topics are open in calls published in 2007

8.4 AREA ENERGY.8.4: INNOVATIVE INTEGRATION OF RENEWABLE ENERGY SUPPLY AND ENERGY EFFICIENCY IN LARGE COMMUNITIES: CONCERTO

For this Area, no topics are open in calls published in 2007

8.5 AREA ENERGY.8.5: INNOVATIVE STRATEGIES FOR CLEAN URBAN TRANSPORT: CIVITAS-PLUS

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.8.5.1: Testing innovative strategies for clean urban transport	CP (TREN)

8.6 AREA ENERGY.8.6: SOCIO-ECONOMIC RESEARCH AND INNOVATION

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.8.6.1: Support action for evaluation and monitoring CIVITASPlus	CSA (support type) (TREN)

8.7 AREA ENERGY.8.7: THEMATIC PROMOTION AND DISSEMINATION

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.8.7.1: Promotion and dissemination	CSA (support type) (TREN)
Topic ENERGY.2007.8.7.2: Support action for coordination and dissemination CIVITAS-Plus	CSA (support type) (TREN)

9 ACTIVITY ENERGY.9: KNOWLEDGE FOR ENERGY POLICY MAKING

9.1 AREA ENERGY.9.1: KNOWLEDGE TOOLS FOR ENERGY-RELATED POLICY MAKING

Topic Title	Funding Scheme and Details
Topic ENERGY.2007.9.1.1: Energy security of supply	CP/SSP (RTD)
Topic ENERGY.2007.9.1.2: Energy behavioural changes	CP/SSP (RTD)
Topic ENERGY.2007.9.1.3: Energy technological foresight and scenario development	CP/SSP (RTD)
Topic ENERGY.2007.9.1.4: Energy technology transfer	CP/SSP (RTD) Specific International Cooperation

9.2 AREA ENERGY.9.2: SCIENTIFIC SUPPORT TO POLICY

Topic Title	Funding Scheme and Details
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Topic ENERGY.2007.9.2.1: Energy foresight network	CSA (coordination type) (RTD)
Topic ENERGY.2007.9.2.2: Energy technology watch	CSA (support type) (TREN)

10 ACTIVITY ENERGY.10: HORIZONTAL PROGRAMME ACTIONS

Topic Title	Funding Scheme and Details
*Topic ENERGY.2007.10.0.1: Optimise EU action through a better coordination of the international cooperation initiatives of the EU and Member States	CSA under the ERA-Net scheme
Topic ENERGY.2007.10.0.2 Trans-national co-operation among NCPs	CSA (coordination type) (RTD)
*Topic ENERGY.2007.10.0.3: Fostering coordination between national and European energy RTD strategies and programmes	CSA under the ERA-Net scheme
Topic ENERGY.2007.10.0.4: Development of a methodology for monitoring the expected impacts of FP7 Energy projects	CSA (support type) (RTD)

* Note that these topics are open in call FP7-ERANET-2007-RTD, which is described in Annex 4 of the Work Programme, along with more details of the ERA-Net scheme.

Other Energy related topics in Cooperation

ENERGY related Topics in NMP

4.2.2 Knowledge-based smart materials with tailored properties

Topic Title	Funding Scheme and Details
NMP-2007-2.2-1 Organic materials for electronics and photonics	Large scale integrating projects
NMP-2007-2.2-3 Advanced material architectures for energy conversion	Small or medium-scale focused research projects

4.2.4 Advances in chemical technologies and materials processing

Topic Title	Funding Scheme and Details
NMP-2007-2.4-1 Flexible efficient processing for polymers	Collaborative projects targeted to SME.
NMP-2007-2.4-2 Nanostructured catalysts with tailor-made functional surfaces	Small or medium-scale focused research projects

4.2.5 Using engineering to develop high performance knowledge-based materials

Topic Title	Funding Scheme and Details
NMP-2007-2.5-1 Novel materials tailored for extreme conditions and environments	Large scale integrating projects

4.3.4 Rapid transfer and integration of new technologies into the design and operation of manufacturing processes

Topic Title	Funding Scheme and Details
NMP-2007-3.4-2 Innovative Pathways in Synthesis - Improving efficiency by smart synthesis, design and reduction of the number of reaction steps	Small or medium-scale focused research projects

Activity 4.4 Integration of technologies for industrial applications

Topic Title	Funding Scheme and Details
NMP-2007-4.0-2 Application of new materials including bio-based fibres in high-added value textile products	Collaborative projects targeted to SME.
NMP-2007-4.0-3 Multifunctional materials for future vehicles	Large scale integrating projects
NMP-2007-4.0-5 Resource Efficient and Clean Buildings	Large scale integrating projects
NMP-2007-4.0-6 Innovative added-value construction product-services	Collaborative projects targeted to SME.