



EUROPEAN  
COMMISSION

European  
Research Area

# EU Energy Research

Supporting research  
for a sustainable  
and secure energy system

# The EU's energy and climate goals

Through its energy and climate policies, the EU has set itself a number of very ambitious targets.

By 2020 –

- greenhouse-gas emissions should be reduced by 20%
- the share of renewable energies should increase to 20% of total EU energy consumption
- the share of biofuels in transport should reach 10%
- energy efficiency should improve by 20%

Achieving these goals will require major breakthroughs in the research and development of new technologies. The European Strategic Energy Technology Plan (SET-Plan) reaches beyond the 2020 targets and outlines long-term energy research priorities until 2050. As such, it lays the foundations for a European policy for energy technology.



# The European Strategic Energy Technology Plan (SET-Plan)

The long-term vision of EU energy policy of a transition to a low-carbon economy can only be realised through collective endeavour.

The SET-Plan, besides defining technology challenges, establishes a new governance framework that will facilitate the development of a European Area for Energy Research. It includes all relevant European public and private stakeholders from different levels.

Important elements of this reinforced cooperation are


- Joint strategic planning and programming of energy research priorities
- More effective implementation of technological breakthroughs
- Reinforcing international cooperation

# Energy Research Activities in FP7

The Seventh Framework Programme for Research and Technological Development (FP7) paves the way for implementing the objectives of the SET-Plan.

FP7 runs from 2007 to 2013, and EUR 2.35 billion of its EUR 50.5 billion budget is dedicated to non-nuclear energy research.

The objective of research projects funded under FP7 is to make energy production and consumption patterns sustainable and secure. This contributes to reducing Europe's dependence on imported fuels and to diversifying its energy mix through the increased use of renewables, energy carriers such as hydrogen and non-polluting sources like solar or wind energy.



Research funded under FP7 focuses in particular on the following areas:

- Hydrogen and fuel cells
- Renewable energies for electricity, fuel production and heating and cooling
  - Photovoltaics
  - Biomass
  - Wind
  - Geothermal energy
  - Concentrated Solar Power
  - Ocean
  - Hydro
- CO<sub>2</sub> capture and storage technologies for zero emission power generation
- Clean Coal Technologies
- Smart energy networks
- Energy efficiency and savings
- Knowledge for policy making

# International Cooperation

The challenges and opportunities in energy research are global in scale, so close international collaboration is crucial.

With this in mind, participation in FP7 is open to organisations based outside the EU. Cooperation with certain countries and regions is further enhanced by Specific International Cooperation Actions (SICA), the targeted opening of topics and coordinated calls for proposals.

The EU also participates actively in multi-lateral cooperation initiatives, such as the Implementing Agreements of the International Energy Agency (IEA), the International Partnership for the Hydrogen Economy (IPHE) and the Carbon Sequestration Leadership Forum (CSLF).

The European Strategic Energy Technology plan (SET-Plan) reinforces the importance of international cooperation in energy research.





## Find out more

Further information about EU-funded energy research can be found on the following websites:

- Energy research website of the European Commission's Directorate-General for Research:  
[http://ec.europa.eu/research/energy/index\\_en.htm](http://ec.europa.eu/research/energy/index_en.htm)
- Energy research website of the European Commission's Directorate-General for Energy and Transport:  
[http://ec.europa.eu/dgs/energy\\_transport/rtd/index\\_en.htm](http://ec.europa.eu/dgs/energy_transport/rtd/index_en.htm)
- Information on funding opportunities - energy research on CORDIS:  
[http://cordis.europa.eu/fp7/energy/home\\_en.html](http://cordis.europa.eu/fp7/energy/home_en.html)
- Publications from the EU institutions, agencies and other bodies:  
<http://bookshop.europa.eu/>

[http://ec.europa.eu/research/energy/index\\_en.htm](http://ec.europa.eu/research/energy/index_en.htm)