



Published on *Horizon 2020* (<https://ec.europa.eu/programmes/horizon2020>)

Energy

Energy research and innovation plays an important role in order to satisfy constantly increasing energy needs while fighting climate change.

Cooking a meal, heating a house, lighting a street, keeping a hospital open, running a factory, driving a car – energy is at the heart of everybody's life. It is also a crucial factor for economic competitiveness and employment.

The current fossil-fuel based energy system is unsustainable, not only due to scarce resources, but also because of a negative impact on climate change. Therefore, the European Council has unanimously decided that the EU requires to largely decarbonise its energy system by 2050.

Energy research and innovation has an essential role to play in addressing the challenge of satisfying security of energy supply, competitiveness of the EU industry and ensuring affordable prices for the citizens, whilst at the same time combating climate change. While doing this, we are looking for synergies with other sectors, e.g. telecoms and ICT industry.

To provide European citizens with the widest energy source choice, while respecting the right of Member States to decide on their own energy mix, several energy and ICT technologies need to be available. In parallel, we need to stay in line with:

- the commitment to reduce greenhouse gas emissions by 20% by 2020;
- the objective of a further reduction up to 80-95% by 2050.

Therefore, the energy research is a very complex area including various technologies and covering the following fields:

- Non-nuclear energy ([Concentrated Solar Power](#) [1], [Photovoltaics](#) [1], [Wind](#) [2], [Ocean](#) [3], [Hydro](#) [4], [Geothermal](#) [5], [Bioenergy](#) [6], [Fuel Cells and Hydrogen](#) [7], [Electricity Grids](#) [7], [Carbon Capture and Storage](#) [8], [Energy Storage](#) [7], [Energy Efficiency](#) [7], [Smart Cities](#) [9]) and the integration of ICT in all energy fields.
- Nuclear energy ([Fission](#) [10] and [Fusion](#) [11]).

Search for funding opportunities related to [non-nuclear energy](#) [12] and [nuclear energy](#) [13].

Links:

[Energy Research and Innovation \(Video\)](#) [14]

[Digital Agenda for Europe - Smart cities](#) [9]

[Strategic Energy Technologies Information System](#) [15]

[Energy Research Knowledge Centre](#) [16]

[Energy strategy for Europe](#) [17]



[18]

Related Horizon 2020 sections:

[Secure, Clean and Efficient Energy](#) [19]

[Euratom](#) [20]

Source URL: <https://ec.europa.eu/programmes/horizon2020/en/area/energy>

Links

[1] http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=renewable_solar

[2] http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=renewable_wind

[3] http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=renewable_ocean

[4] http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=renewable_hydro

[5] http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=renewable_geothermal

[6] http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=renewable_bio

[7] <http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=conversion>

[8] <http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=fossil>

[9] <https://ec.europa.eu/digital-agenda/en/about-smart-cities>

[10] <http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=fission>

[11] <http://ec.europa.eu/research/energy/index.cfm?pg=area&areaname=fusion>

[12]

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search;freeTextSearchKeyword=&typeCodes=1;statusCodes=31094501,31094502;programCode=H2020;programDivisionCode=31047938;focusAreaCode=null;crossCuttingPriorityCode=null;callCode=Default;sortQuery=openingDate;orderBy=asc;onlyTenders=false>

[13]

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search;freeTextSearchKeyword=&typeCodes=1;statusCodes=31094501,31094502;programCode=H2020;programDivisionCode=31048036;focusAreaCode=null;crossCuttingPriorityCode=null;callCode=Default;sortQuery=openingDate;orderBy=asc;onlyTenders=false>

[14] <http://ec.europa.eu/avservices/video/player.cfm?ref=1078032&sitelang=en>

[15] <http://setis.ec.europa.eu/>

[16] <http://setis.ec.europa.eu/energy-research/>

[17] <http://ec.europa.eu/research/energy/index.cfm?pg=policy&polycname=energystrategy>

[18] <https://ec.europa.eu/programmes/horizon2020/sites/default/files/energy.jpg>

[19] <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/secure-clean-and-efficient-energy>

[20] <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/euratom>