

Horizon 2020 Energy Calls 2020

EU Energy Focus is the UK's National Contact Point (NCP) service for Energy. It is a free UK Government-funded service, that aims to ensure that UK organisations are well informed and have every chance of success in applying for and securing European funding for energy-related projects.

The service includes one-to-one discussion of proposal ideas for relevance to the Calls for Proposals, support during the proposal development process and review of draft proposals.

UK organisations will remain eligible to participate in and coordinate consortia, including for the Horizon 2020 Calls listed below. More information can be found at www.euenergyfocus.co.uk or via our helpline, contact details below.

The tables below summarise the content of the Horizon 2020 Secure, Clean and Efficient Energy Calls for Proposals for 2020. The Work Programmes can be downloaded at:

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-energy_en.pdf the Energy Work Programme and

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-cc-activities_en.pdf for the Cross Cutting Work programme.

Please contact the team if you have any queries on Horizon 2020 Energy.

EU Energy Focus

Tel 0845 6000 430

Email mail@euenergyfocus.co.uk

Contents

A. 2020 - Buildings in energy transition (B4E)	Page 2
B. 2020 - Global Leadership in Renewables	Page 3
C. 2020 – Smart citizen-centred energy system	Page 5
D. 2020 – Enabling near-zero CO ₂ emissions from fossil fuel power plants and carbon intensive industries	Page 6
E. 2020 – Cross cutting issues	Page 6
F. 2020 – Smart Cities and Communities	Page 6
G. 2020 – Smart Airports	Page 7
H. 2020 - Joint Actions	Page 7
I. 2020 – Cross cutting Work Programme Annex – batteries and CCUS	Page 7
Funding action definitions e.g. IA, RIA, CSA, ERA-NET, PCP	Page 8

2020 Calls

A. 2020 – Buildings in energy transition (B4E)

Opening	16 July 2019	
Deadline	15 January 2020	
Budget	€53.5M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project	Indicative budget (M€)	
B4E-1-2020: Towards highly energy efficient and decarbonised buildings (CSA), €1M to €2M	7	
B4E-5-2020: Integrated design concepts for energy-efficient ICT equipment in buildings (IA), €2M to €3M	3	
B4E-6-2020: Big data for buildings (IA), €3.5M to €4M	12	
B4E-7-2020: European building stock data 4.0 (CSA), €1.5M to €2M	4	
B4E-8-2020: Renewable and energy efficient solutions for heating and/or cooling, and domestic hot water production in multi-apartment residential buildings (IA), €2M to €2.5M	7	
B4E-9-2020: Support to the coordination of European smart buildings innovation community (CSA), €1M to €1.5M	1.5	
B4E-10-2020: Self-assessment and self-optimisation of buildings and appliances for a better energy performance (IA), €3M to €6M	6	
B4E-12-2020: National roundtables to implement the Smart Finance for Smart Buildings initiative (CSA), €0.5M to €1.5M	3	
Smart and clean energy for consumers		
EC-4-2020: Socio-economic research: non-energy impacts and behavioural insights on energy efficiency interventions (RIA), €1M to €2M	10	

Opening	5 March 2020	
Deadline	10 September 2020	
Budget	€64M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project	Indicative budget (M€)	
B4E-2-2020: Stimulating demand for sustainable energy skills in the building sector (CSA), €0.5M to €1M	4	
B4E-3-2020: Upgrading smartness of existing buildings through innovations for legacy equipment (IA), €3M to €4M	8	
B4E-4-2020: Next-generation of Energy Performance Assessment and Certification (CSA), €1M to €2M	6	
B4E-11-2020: Financing for energy efficiency investments - Smart Finance for Smart Buildings (CSA), €1M to €1.5M	16	

B4E-13-2020: Aggregation - Project Development Assistance (CSA), €0.5M to €1.5M	
B4E-12-2020: National roundtables to implement the Smart Finance for Smart Buildings initiative (CSA), €0.5M to €1.5M	3
B4E-14-2020: Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side (CSA), €1M to €2M	6
Smart and clean energy for consumers	
EC-1-2020: The role of consumers in changing the market through informed decision and collective actions (CSA), €1M to €2M	12
EC-2-2020: Mitigating household energy poverty (CSA), €1M to €2M	
EC-5-2020: Supporting public authorities in driving the energy transition (CSA), €1M to €1.5M	9

Opening	3 September 2019
Deadline	29 January 2020
Budget	€16M
Evaluation procedure	Single stage
Call topics (funding action), expected EU funding per project	Indicative budget (M€)
EC-3-2020: Consumer engagement and demand response (IA), €4M to €6M	16

B. 2020 – Global Leadership in Renewables

Opening	3 September 2019
Deadline	11 December 2019
Budget	€110M
Evaluation procedure	Single stage
Call topics (funding action), expected EU funding per project	Indicative budget (M€)
RES-9-2020: Next generation of thin-film photovoltaic technologies (IA), €5M to €7M	20
RES-19-2020: Demonstration of innovative technologies for floating wind farms (IA), up to €25M	25
RES-27-2020: Demonstration of advanced biofuels production from aquatic biomass (IA), €6M to €10M	10
RES-28-2020: Market Uptake support (CSA), €1M to €3M	25
RES-33-2020: Increase performance and reliability of photovoltaic plants (IA), €6M to €10M	20
RES-35-2020: Reduce the cost and increase performance and reliability of CSP plants (IA), €5M to €10M	10

Opening	3 December 2019	
Deadline	28 April 2020 (extended from 21 April)	
Budget	€83M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
RES-1-2020: Developing the next generation of renewable energy technologies (RIA), €2M to €4M		45
RES-18-2020: Advanced drilling and well completion techniques for cost reduction in geothermal energy (RIA lump sum ¹), €2M to €4M		8
RES-26-2020: Development of next generation renewable fuel technologies from CO ₂ and renewable energy (Power and Energy to Renewable Fuels) (RIA), €3M to €5M		8
RES-31-2020: Offshore wind basic science and balance of plant (RIA), €2M to €4M		8
RES-32-2020: New test rig devices for accelerating ocean energy technology development (RIA), €2M to €5M		8
RES-37-2020: Combined clean biofuel production and phytoremediation solutions from contaminated lands worldwide (RIA), €2M to €4M		6

Opening	5 May 2020	
Deadline	1 September 2020	
Budget	€40M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
RES-3-2020: International Cooperation with USA and/or China on alternative renewable fuels from sunlight for energy, transport and chemical storage (RIA), €2M to €4M		10
RES-20-2020: Efficient combination of Concentrated Solar Power and desalination (with particular focus on the Gulf Cooperation Council (GCC) region) (IA), €6M to €10M		10
RES-25-2020: International cooperation with Japan for Research and Innovation on advanced biofuels and alternative renewable fuels (RIA), €2M to €5M		5
RES-34-2020: Demonstration of innovative and sustainable hydropower solutions targeting unexplored small-scale hydropower potential in Central Asia (IA), €7M to €10M		10
RES-36-2020: International cooperation with Canada on advanced biofuels and bioenergy (RIA), €3M to €5M		5

¹ Please note that this topic is part of the lump sum funding pilot scheme. Funding for grants awarded under this topic will take the form of lump sums as defined in the Commission Decision C(2017)7151 of 27 October 2017. Details of the [lump sum funding pilot scheme](#) are published on the Funding & tender opportunities website together with the specific Model Grant Agreement for Lump Sums applicable".

Opening	26 September 2019	
Deadline	28 April 2020 (extended from 21 April)	
Budget	€15M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
RES-10-2020: Pre-Commercial Procurement for a 100% Renewable Energy Supply (PCP), €8M to €15M		15

C. 2020 – Smart citizen-centred energy system

Opening	3 September 2019	
Deadline	29 January 2020	
Budget	€95M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
ES-3-2020: Integrated local energy systems (Energy islands) (IA), €5M to €6M		15
ES-4-2020: Decarbonising energy systems of geographical Islands (IA), €5M to €7M		40
ES-5-2020: TSO – DSO – Consumer: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation (IA), €20M to €22M		22
ES-10-2020: DC – AC/DC hybrid grid for a modular, resilient and high RES share grid development (IA), €7M		14
ES-11-2020: Rapid Relief through Transitions on Islands (IA), €2M to €3M		4

Opening	5 May 2020	
Deadline	1 September 2020	
Budget	€9M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
ES-13-2020: Integrated local energy systems (Energy islands): International cooperation with India (IA), €2.5M to €3.5M (previously ES-12)		9

D. 2020 – Enabling near-zero CO₂ emissions from fossil fuel power plants and carbon intensive industries²

Opening	5 May 2020	
Deadline	1 September 2020	
Budget	€14M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
NZE-6-2020: Geological Storage Pilots (RIA), €7M to €10M		14

E. 2020 – Cross cutting issues

Opening	5 May 2020	
Deadline	1 Septemeber 2020	
Budget	€15M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
CC-1-2020: Social Sciences and Humanities (SSH) aspects of the Clean-Energy Transition (RIA), €1M to €3M		10
CC-7-2020: European Energy and Climate Modelling Forum (2020-2024) (RIA), €5M		5

F. 2020 – Smart Cities and Communities

Opening	3 September 2019	
Deadline	29 January 2020	
Budget	€55M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
SCC-1-2020: Smart Cities and Communities (IA), €15M to €20M		55

² "NZE-5-2020: Low carbon industrial production using CCUS" will be implemented through the Call "Competitive, Low Carbon And Circular Industries", included in the Work Programme Annex "Cross-cutting activities".

Opening	5 May 2020	
Deadline	1 September 2020	
Budget	€5M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
SCC-2-2020: Positive Energy Districts and Neighbourhoods for urban energy transitions (ERA-NET Cofund), €5M		5

G. 2020 – Smart Airports

Opening	3 September 2019	
Deadline	29 January 2020	
Budget	€12M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
SA-1-2020: Smart Airports (IA), €12M		12

H. 2020 – Joint Actions

Opening	26 September 2019	
Deadline	28 April 2020 (extended from 21 April)	
Budget	€15M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
JA-5-2020: Long Term EU-Africa Partnership for Research and Innovation actions in the area of renewable energy (RIA), €15M		15

I. 2020 - Cross cutting Work Programme Annex

Carbon Capture, Utilisation and Storage

Opening	5 May 2020	
Deadline	1 September 2020	
Budget	€15M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
LC-SC3-NZE-5-2020: Low carbon industrial production using CCUS (IA), €15M		15

Building a Low-Carbon, Climate Resilient Future: Next-Generation Batteries

Opening	9 July 2019	
Deadline	16 January 2020	
Budget	€42M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
LC-BAT-12-2020: Novel methodologies for autonomous discovery of advanced battery chemistries (RIA), up to €20M		20
LC-BAT-13-2020: Sensing functionalities for smart battery cell chemistries (RIA), €2M to €4M		10
LC-BAT-14-2020: Self-healing functionalities for long lasting battery cell chemistries (RIA), €2M to €4M		10
LC-BAT-15-2020: Coordinate and support the large scale research initiative on Future Battery Technologies (CSA), up to €2M		2

Opening	3 December 2019	
Deadline	28 April 2020 (extended from 21 April)	
Budget	€90M	
Evaluation procedure	Single stage	
Call topics (funding action), expected EU funding per project		Indicative budget (M€)
LC-BAT-8-2020: Next-generation batteries for stationary energy storage (RIA), €6M to €8M		20
LC-BAT-9-2020: Hybridisation of battery systems for stationary energy storage (RIA), €3M to €4M		10
LC-BAT-10-2020: Next generation and realisation of battery packs for BEV and PHEV (IA), €8M to €10M		40
LC-BAT-11-2020: Reducing the cost of large batteries for waterborne transport (RIA), €8 to €12M		20

Funding action definitions:

Research and Innovation Actions (RIA):

- Includes basic and applied research, technology development and integration, testing and validation on a small scale prototype in a laboratory or simulated environment
- 3 independent legal entities from different Member States or Associated Countries
- Funding rate: maximum 100%

Innovation Actions (IA):

- Includes demonstration or pilot to validate technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment.
- Also 'market replication' i.e. support for the first application or deployment in the market of an already demonstrated innovation

- 3 independent legal entities from different Member States or Associated Countries
- Funding rate: maximum 70% (except for non-profit legal entities where a maximum of 100% applies – check precise definition)

Coordination and Support Actions (CSA):

- Including improving market conditions and aiding market transformation e.g. standardisation, fostering dialogue, capacity building
- 1 legal entity from different Member States or Associated Countries *
- Funding rate: maximum 100%

* however EU collaboration may be favoured for some topics and is required for the following topics **B4E-1, 2, 4, 7, 9, 11, 14, EC1, 2, 5**. Please see page 220 of the Work Programme for details.

ERA-NET Cofund:

Public-public partnerships only, including joint programming initiatives between Member States. Specific funding arrangements.

Pre-Commercial Procurement (PCP):

PCP enables the public sector as a technologically demanding buyer to encourage research and development of breakthrough solutions that can bring radical quality and efficiency improvements in areas of public interest, whilst opening market opportunities for industry and researchers. The funding rate for grants awarded under topic JA-5-2020 is capped at 50% of the total eligible costs.