



# The EU Framework Program for Research and Innovation **HORIZON 2020 (2014-2020)**

## **Horizon 2020, EU Program for Research & Innovation: opportunities for Moldova-EU cooperation in energy efficiency and renewable energy sector**

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## **Secure, Clean and Efficient Energy**

**Secure, Clean and Efficient Energy** makes part of the **Societal Challenges** defined in **Horizon-2020 (H2020) Program**.

**Horizon-2020 Program** covers the period of time **2014-2020**.

**Secure, Clean and Efficient Energy** deals with the following main areas:

- **Energy efficiency (EE)**
- **Competitive Low-Carbon Energy (LCE)**
- **Smart cities and communities (SCC)**
- **SMEs and Fast Track to Innovation for Energy**
- **Other actions**

## Secure, Clean and Efficient Energy

**Energy efficiency (EE)** calls deal with issues of: A - Buildings and consumers,  
B - Heating and cooling,  
C - Industry and products,  
D - Finance for sustainable energy.

**Competitive Low-Carbon Energy (LCE)** calls cover issues of:

- New knowledge and technologies;
- Renewable electricity and heating/cooling;
- Modernising the European electricity grid;
- Providing the energy system with flexibility through enhanced energy storage technologies;
- Sustainable biofuels and alternative fuels for the European transport fuel mix;
- Enabling the decarbonisation of the use of fossil fuels during the transition to a lowcarbon economy;
- Supporting the development of a European research area in the field of energy;
- Social, environmental and economic aspects of the energy system; Cross-cutting issues.

**Smart cities and communities (SCC) and SMEs and Fast Track to Innovation for Energy**

deal with priority issues of cities/communities and SME's as defined in H2020 work program and objectives.

**Other actions**



## Secure, Clean and Efficient Energy

**Other actions** (some topics):

### B.1. Energy efficiency

Support to policy development and implementation of the Energy Efficiency relevant Directives and Regulations, namely Energy Performance of Buildings Directive (EPBD) and Energy Efficiency Directive (EED).

### B.2.: Competitive low-carbon energy technologies

B.2.1.: Support to policy development and implementation of the Renewable Energy Directive

B.2.2.: Coordination of Renewable Energy policies development and implementation through concerted actions

B.2.3.: Support to Research and Innovation Policy in the areas of Renewable Energy, Carbon Capture and Storage and Clean Coal

B.2.6.: Realization of a reliable and stable energy supply systems integrating increasing share of variable renewable energy and storage

B.2.10.: Innovative Financial Instruments for First-of-a-kind Commercial Demonstration Projects in the field of Energy

B.2.12.: Studies to support the Internal Energy Market

### B.3. Smart Cities and Communities

B.3.1.: Studies to support Smart Cities and Communities

B.3.2.: Support Services for the Covenant of Mayors Initiative

*Note: in R. Moldova for today there are **22 signatories** of the Covenant of Mayors Initiative*

B.3.3.: Support the coordination of cities' activities via the Green Digital Charter

### B.4. Cross-cutting issues

B.4.2: Modeling and analysing energy policy, system transformation and climate change measures, etc.

## **Secure, Clean and Efficient Energy**

First H2020 calls for 2014-2015 were published on December 11, 2013.

The majority of calls for 2015 are published on **December 10, 2014**.

Except Energy efficiency - PPP EEB and SPIRE topics (EE02 and EE18) for which the opening date was **September 30, 2014**, and few other calls

The list of the calls for 2015, sorted by deadlines, is presented herein below.

**Total budget** foreseen for Secure, Clean and Efficient Energy is of:

**5.93 billion euro for 2014-2020**

including **676.92 million euro for 2015**

## Secure, Clean and Efficient Energy – calls 2015

**Dead-line: March 03, 2015 (I)**

### **Competitive Low-Carbon Energy (LCE) topics:**

#### *Renewable electricity and heating/cooling*

**LCE 3 – 2014/2015:** Demonstration of renewable electricity and heating/cooling technologies

**LCE 4 – 2014/2015:** Market uptake of existing and emerging renewable electricity, heating and cooling technologies

#### *Modernising the European electricity grid*

**LCE 5 – 2015:** Innovation and technologies for the deployment of meshed off-shore grids

**LCE 6 – 2015:** Transmission grid and wholesale market

#### *Providing the energy system with flexibility through enhanced energy storage technologies*

**LCE 9 – 2015:** Large scale energy storage

#### *Enabling the decarbonisation of the use of fossil fuels during the transition to a lowcarbon economy*

**LCE 12 – 2014/2015:** Demonstrating advanced biofuel technologies

#### *Sustainable biofuels and alternative fuels for the European transport fuel mix*

**LCE 14 – 2014/2015:** Market uptake of existing and emerging sustainable bioenergy

#### *Supporting the development of a European research area in the field of energy*

**LCE 19 – 2014/2015:** Supporting coordination of national R&D activities

#### *Social, environmental and economic aspects of the energy system*

**LCE 21 – 2015:** Modelling and analysing the energy system, its transformation and impacts

## Secure, Clean and Efficient Energy – calls 2015

**Dead-line:** March 03, 2015 (II)

### Smart Cities and Communities (SCC) topics:

**SCC 1 – 2014/2015:** Smart Cities and Communities solutions integrating energy, transport, ICT sectors through lighthouse (large scale demonstration - first of the kind) projects

**SCC 3 – 2015:** Development of system standards for smart cities and communities solutions

**Dead-line:** March 18, 2015 (two stage projects)

### SMEs and Fast Track to Innovation for Energy

**SIE 1 – 2014/2015:** Stimulating the innovation potential of SMEs for a low carbon and efficient energy system

**Dead-line:** April 28, 2015

### Competitive Low-Carbon Energy:

*Supporting the development of a European research area in the field of energy*

**LCE 18 – 2014/2015:** Supporting Joint Actions on demonstration and validation of innovative energy solutions

**Dead-line:** May 05, 2015

### Competitive Low-Carbon Energy:

*Sustainable biofuels and alternative fuels for the European transport fuel mix*

**LCE 13 – 2015:** Partnering with Brazil on advanced biofuels

## Secure, Clean and Efficient Energy – calls 2015

**Dead-line: June 10, 2015**

### ***Energy Efficiency (EE) topics:***

#### ***A – Buildings and consumers***

- EE 5 – 2014/2015:** Increasing energy performance of existing buildings through process and organization innovations and creating a market for deep renovation
- EE 6 – 2015:** Demand response in blocks of buildings
- EE 7 – 2014/2015:** Enhancing the capacity of public authorities to plan and implement sustainable energy policies and measures
- EE 9 – 2014/2015:** Empowering stakeholders to assist public authorities in the definition and implementation of sustainable energy policies and measures
- EE 10 – 2014/2015:** Consumer engagement for sustainable energy
- EE 11 – 2014/2015:** New ICT-based solutions for energy efficiency

#### ***B – Heating and cooling***

- EE 13 – 2014/2015:** Technology for district heating and cooling
- EE 14 – 2014/2015:** Removing market barriers to the uptake of efficient heating and cooling solutions

#### ***C - Industry and products***

- EE 15 – 2014/2015:** Ensuring effective implementation of EU product efficiency legislation
- EE 16 – 2014/2015:** Organisational innovation to increase energy efficiency in industry
- EE 17 – 2015:** Driving energy innovation through large buyer groups

#### ***D - Finance for sustainable energy***

- EE 19 – 2014/2015:** Improving the financeability and attractiveness of sustainable energy investments
- EE 20 – 2014/2015:** Project development assistance for innovative bankable and aggregated sustainable energy investment schemes and projects
- EE 21 – 2014/2015:** Development and market roll-out of innovative energy services and financial schemes for sustainable energy



## Secure, Clean and Efficient Energy – calls 2015

**Dead-lines:** June 17, September 17, December 16, 2015 (two stage projects)

### ***SMEs and Fast Track to Innovation for Energy***

**SIE 1 – 2014/2015:** Stimulating the innovation potential of SMEs for a low carbon and efficient energy system

**Dead-lines:** different for each topic

**Other actions** *(listed before)*

## Secure, Clean and Efficient Energy – calls 2015

### Opening dates, deadlines and indicative budgets: summary

**Energy efficiency calls (EE)**, all single stage:

#### Opening dates:

**30 September 2014** for 2015 topics EE2, EE18

**10 December 2014** for 2015 topics **except** EE2 and EE18

#### Deadlines:

**04/02/2015** Topics EE 2, 18

**04/06/2015** Topics EE 5-7, 9-11, 13-17, 19-21

**Indicative budget:** **EUR 98.15 million** from the 2015 budget

Topics EE 1 and EE 2 (implemented under EeB PPP) **EUR 9 million**

Topic EE 18 (implemented under SPIRE PPP) **EUR 8 million**

Topics EE 6; 12; and 13 **EUR 13.35 million**

Topic EE 11 **EUR 8.5 million**

Topics EE 4, 5, 7-10, 14-17 **EUR 32.8 million**

Topics EE 19-21 **EUR 26.5 million**

## Secure, Clean and Efficient Energy – calls 2015

### Opening dates, deadlines and indicative budgets: summary

#### Competitive Low-Carbon Energy (LCE):

##### Opening dates:

**9 June 2014** for 2015 topics LCE2, LCE11, LCE15 and LCE17

**10 December 2014** for 2015 topics (except for the 2nd stage of topics LCE2, LCE11, LCE15 and LCE17)

##### Deadlines and indicative budgets:



## Secure, Clean and Efficient Energy – calls 2015

### Competitive Low-Carbon Energy (LCE)

#### Indicative budgets:

Topic	Deadlines	
	2015	
LCE 1		
LCE 2, LCE 11	03/09/2014 (stage 1)	05/05/2015 (stage 2)
LCE 3, 12	05/05/2015	
LCE 4, 14	05/05/2015	
LCE 5, 6	05/05/2015	
LCE 7		
LCE 8, 10		
LCE 9	05/05/2015	
LCE 15, 16		
LCE 15, 17	03/09/2014 (stage 1)	05/05/2015 (stage 2)
LCE 18 [ERA-NET]	05/05/2015	
LCE 19	05/05/2015	
LCE 20		
LCE 21	05/05/2015	
LCE 22		
LCE 23	05/05/2015	

	2015 EUR million	
LCE 1		Two stage evaluation
LCE 2, LCE 11	60	All two stage evaluation
LCE 3, 12	80	All single stage evaluation
LCE 4, 14	20	All single stage evaluation
LCE 5, 6	71.48	All single stage evaluation
LCE 7		Single stage evaluation
LCE 8, 10		All single stage evaluation
LCE 9	36.34	Single stage evaluation
LCE 15, 16, 17	35	All two stage evaluation
LCE 18 [ERA-NET]	61.25	Single stage evaluation
LCE 19	3	Single stage evaluation
LCE 20		Single stage evaluation
LCE 21	10	Single stage evaluation
LCE 22		Single stage evaluation
LCE 23	0.4	Single stage evaluation

## Secure, Clean and Efficient Energy – calls 2015

### Opening dates, deadlines and indicative budgets: summary

**Smart Cities and Communities (SCC)**, single stage projects:

**Opening dates:** **10 December 2014** for 2015 topics

**Deadlines:** **SCC 1, SCC 3** **05/05/2015**

**Indicative budget:** **EUR 107.18 million** from the 2015 budget

Topic **SCC 1** **EUR 106.18 million**

Topic **SCC 3** **EUR 1 million**

## Secure, Clean and Efficient Energy – calls 2015

### Opening dates, deadlines and indicative budgets: summary

#### SMEs and Fast Track to Innovation for energy:

##### Opening dates:

**18/12/2014** for 2015 topics for phase 1 and phase 2 of the SME instrument

##### Deadlines:

Topic	Deadlines	
	2015	
SIE 1	Phase 1	Phase 2
[SME]	18/03/2015	18/03/2015
Open call cut-off dates	17/06/2015	17/06/2015
	17/09/2015	17/09/2015
	16/12/2015	16/12/2015

##### Indicative budget:

**EUR 34.76 million** from the 2015 budget

out of which **3.48 for phase 1,**

**30.58 for phase 2,**

**0.70 for mentoring & coaching support and phase 3**

## Secure, Clean and Efficient Energy – calls 2015

### Opening dates, deadlines and indicative budgets:

#### Other actions:

#### Opening dates & deadlines:

different for each topic

#### Indicative budget:



Other Actions	2015 <sup>157</sup> Budget EUR million
Experts (expert evaluators, experts groups, monitors)	6.80 of which 3.00 from 32.040301 and 3.80 from 08.020303
Subscription – implementing agreements of the International Energy Agency and contribution to the International Renewable Energy Agency	1.03 of which 0.82 from 32.040301 and 0.21 from 08.020303
Grants to identified beneficiaries	13.76 of which 8.50 from 32.040301 and 5.26 from 08.020303
Public procurement – Support actions	23.85 of which 17.60 from 32.040301 and 6.25 from 08.020303
Provision of technical/scientific services by the EC Joint Research Centre (JRC)	0.10 of which 0.10 from 32.040301
Delegation agreement/FAFA – the ELENA Facility	15.00 from 32.040301

## **Secure, Clean and Efficient Energy – calls 2015: concluding summary**

### **Deadlines:**

<b>Energy Efficiency - PPP EeB and SPIRE topics</b>	<b>04/02/2015</b>
<b>Call for competitive low-carbon energy</b>	<b>03/03/2015</b>
<b>Call – Smart Cities and Communities</b>	<b>03/03/2015</b>
<b>Call for competitive low-carbon energy</b>	<b>05/05/2015</b>
<b>Energy Efficiency - Market Uptake PDA</b>	<b>10/06/2015</b>
<b>Energy Efficiency - Market Uptake</b>	<b>10/06/2015</b>
<b>Energy Efficiency Research &amp; Innovation</b>	<b>10/06/2015</b>
<b>SMEs and Fast Track to Innovation for energy:</b>	<b>18/03, 17/06, 17/09, 16/12/2015</b>



**Secure, Clean and Efficient Energy**

**Where to find call info?**

<http://ec.europa.eu/programmes/horizon2020/h2020-sections>

<http://ec.europa.eu/programmes/horizon2020/en/h2020-section/secure-clean-and-efficient-energy>

The screenshot shows the Horizon 2020 website interface. The top navigation bar includes links for Login, Create An ECAS Account, About, Contact, Legal notice, and Search. The main header features the European Commission logo and the text 'HORIZON 2020 The EU Framework Programme for Research and Innovation'.

The left sidebar contains a 'What is Horizon 2020' section with a red dashed box highlighting 'Horizon 2020 programme sections'. Below this are links for Experts, Official Documents, and History. A 'Find Your area' button is also present.

The main content area is titled 'Secure, Clean and Efficient Energy'. It includes a description of the Energy Challenge and a list of seven specific objectives and research areas:

- Reducing energy consumption and carbon footprint
- Low-cost, low-carbon electricity supply
- Alternative fuels and mobile energy sources
- A single, smart European electricity grid
- New knowledge and technologies
- Robust decision making and public engagement
- Market uptake of energy and ICT innovation.

A budget of €5 931 million has been allocated to non-nuclear energy research for the period 2014-2020.

On the right, a 'Latest open calls' section is highlighted with a red dashed box. It lists two calls for proposals:

- Energy Efficiency - PPP EeB and SPIRE topics**  
From 11/12/2013 to 09/12/2014
- Energy Efficiency - PPP EeB and SPIRE topics**  
From 30/09/2014 to 04/02/2015

A vertical 'YOUR FEEDBACK' button is located on the right side of the page.

Secure, Clean and Efficient Energy

Where to find call info?

The screenshot displays the Horizon 2020 website interface. The main navigation bar includes links for 'What is Horizon 2020?', 'Find Your area', 'How to Get funding?', 'News', 'Events', 'Multimedia', 'Publications', and 'Project Stories'. The 'Find Your area' link is highlighted, leading to the 'Secure, Clean and Efficient Energy' section.

**Work Programme**

**Links:**

- ▶ DG Research - Energy
- ▶ DG Energy
- ▶ Digital Agenda for Europe - Smart cities
- ▶ Strategic Energy Technologies Information

**Calls**

- ▶ Energy Efficiency - PPP EeB and SPIRE topics  
Deadline: 09/12/2014
- ▶ Energy Efficiency - PPP EeB and SPIRE topics  
Deadline: 04/02/2015
- ▶ Call for competitive low-carbon energy  
Deadline: 03/03/2015

**Latest...**

- ▶ Events
- ▶ Multimedia
- ▶ News
- ▶ Project stories
- ▶ Publications
- ▶ Press Release
- ▶ Presentation materials
- ▶ Events calendar

**What is Horizon 2020?**

**YOUR FEEDBACK**

**#H2020**

**OPER UV**  
@oper\_uv  
Jornada a Madrid

**start** ppt Ghid de participare\_M... Ghid de participare\_N... Secure, Clean and Ef... Ps Untitled-17 @ 66.7%... EN 2:29 PM

**Secure, Clean and Efficient Energy**

**Where to find call info?**

[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master\\_calls.html#h2020-ee-](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master_calls.html#h2020-ee-)

ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master\_calls.html#h2020-ee-

(A-Z) Sitemap About this site

**RESEARCH & INNOVATION**

European Commission

Participant Portal

European Commission > Research & Innovation > Participant Portal > Calls

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**Horizon 2020**

Search Topics

Calls

Call Updates

**Other EU Programmes 2014-2020**

Research Fund for Coal & Steel

COSME

3rd Health Programme

Consumer Programme

**FP7 & CIP Programmes 2007-2013**

Calls

Call Updates

**H2020 Calls**

1. H2020-WATER-2014-2015
  1. H2020-WATER-2014-one-stage
  2. H2020-WATER-2014-two-stage
  3. H2020-WATER-2015-one-stage
  4. H2020-WATER-2015-two-stage
2. H2020-MSCA-NIGHT-2014
3. H2020-SPIRE-2014-2015
  1. H2020-SPIRE-2015
  2. H2020-SPIRE-2014
4. H2020-SMEInst-2014-2015
  1. H2020-SMEINST-1-2014
  2. H2020-SMEINST-1-2015
  3. H2020-SMEINST-2-2015
  4. H2020-SMEINST-2-2014
5. ERC-2014-CoG
6. H2020-BG-2014-2015
  1. H2020-BG-2014-1



7. H2020-EeB-2014-2015
  1. H2020-EeB-2014
  2. H2020-EeB-2015
64. H2020-LCE-2014-2015
  1. H2020-LCE-2014-1
  2. H2020-LCE-2014-2
  3. H2020-LCE-2014-3
  4. H2020-LCE-2014-4
  5. H2020-LCE-2015-1-two-stage
  6. H2020-LCE-2015-2
  7. H2020-LCE-2015-3
  8. H2020-LCE-2015-4
73. H2020-EE-2014-2015
  1. H2020-EE-2014-2-RIA
  2. H2020-EE-2014-1-PPP
  3. H2020-EE-2014-4-PDA
  4. H2020-EE-2014-3-MarketUptake
  5. H2020-EE-2015-1-PPP
  6. H2020-EE-2015-2-RIA
  7. H2020-EE-2015-3-MarketUptake
  8. H2020-EE-2015-4-PDA

**Secure, Clean and Efficient Energy**

**What you need to know about Horizon 2020 calls?**

[http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm)

Find a call - H2020 Online Manual

Energy - European Commission

Secure, Clean and Efficient Energy

ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding/find-a-call\_en.htm

RESEARCH & INNOVATION

European Commission

Participant Portal H2020 Online Manual

> H2020 Online Manual > Grants > Applying for funding > Find a call >

Horizon 2020 structure and budget

What you need to know about Horizon 2020 calls

## Find a call

Horizon 2020 offers a large variety of funding opportunities for [research and innovation activities](#) through calls for proposals that are set out in the Horizon 2020 work programme. On the Participant Portal you can find call information under [Funding opportunities](#).

### Already familiar with EU research funding?

You can go directly to the [H2020 calls](#) and filter open calls that interest you in the relevant programme sub-division.

### New to EU research funding?

Go to [Search topics](#) to find topics that belong to open or upcoming calls. You can search in the text of the call and topic titles, call and topic identifiers, topic description and keywords and tags related to this topic. For more extensive search in various fields of the call and topic pages, you find on the same page a link to the Europa search that functions and presents the results in a similar way as Google search. You can also search for previous (closed) calls, as a guide.

## Where To Find Calls Information?

Call Information sources and their content:

## Secure, Clean and Efficient Energy

# What you need to know about Horizon 2020 calls?

Horizon 2020 calls can have different types of action (funding schemes)

The type of action specifies:

- the scope of what is funded
- the reimbursement rate
- specific evaluation criteria to qualify for funding

## Types of Actions:

### Research & Innovation Actions

*EU funding rate – 100%*

*Activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution.*

### Innovation Actions

*EU funding rate – 70%*

*(except non-profit, which are still funded 100%)*

*Activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services.*

### Coordination & Support Actions

*Accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies.*

## Secure, Clean and Efficient Energy

### For more information and updates please consult:

- **MD-H2020:** <http://www.h2020.md/>
- **Horizon 2020 Work Program 2014-2015 in the area of ‘Secure, Clean and Efficient Energy’:**  
[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014\\_2015/main/h2020-wp1415-energy\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-energy_en.pdf)
- **Calls about Secure, clean and efficient energy:**  
<http://ec.europa.eu/programmes/horizon2020/en/newsroom/548/493>
- **H2020 Calls:**  
[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master\\_calls.html#h2020-ee-2014-2015](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master_calls.html#h2020-ee-2014-2015)
- **H2020 Official Documents:** <http://ec.europa.eu/programmes/horizon2020/en/official-documents>
- **Ghid de participare la Programul Cadru al UE de cercetare-inovare “ORIZONT 2020” (2014-2020):**  
<http://www.h2020.md/en/ghid-de-participare-la-programul-cadru-al-ue-de-cercetare-inovare-%E2%80%99Corizont-2020%E2%80%9D-2014-2020>
- **Participant Portal H2020 Online Manual:**  
<http://ec.europa.eu/research/participants/portal/desktop/en/funding/guide.html>  
[http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm)
- **H2020 Calls:**  
[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master\\_calls.html#h2020-ee](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/master_calls.html#h2020-ee)
- **European Commission alphabetic index from A to Z:** [http://ec.europa.eu/atoz\\_en.htm](http://ec.europa.eu/atoz_en.htm)

**Thank you for your kind attention**