



Horizon 2020 Energy Prizes






Karina Firkaviciute
RTD G.1, Policy officer

*Innovative Energy Solutions for European Regions and
Cities - in the context of the KEP, 24 March 2017*



The aim

- To stimulate innovation and come up with solutions to problems that matter to European citizens
- The three prizes in the area of energy contribute to the objectives of both the [Energy Union](#) and the [SET Plan](#). They can generate breakthroughs and boost innovation in low carbon energy technologies, leading to greater sustainability and efficiency, while increasing our energy security and supporting the decarbonisation of the European economy.

	Title	Budget	Submission by
	<p><u>CO2 reuse in innovative products</u> EC-CO2REUSE-PRIZE@ec.europa.eu</p>	<p>€1.5 EUR million</p>	<p>3 April 2019</p>
	<p><u>Low carbon hospital</u> Combined Heat and Power installation in a hospital using 100% renewable energy sources EC-LOWCARBON-PRIZE@ec.europa.eu</p>	<p>€ 1.0 EUR million</p>	<p>3 April 2019</p>
	<p><u>Photovoltaics meets history</u> Integrated Photovoltaic Energy System in a European protected historic urban district EC-PHOTOVOLTAICS-PRIZE@ec.europa.eu</p>	<p>€ 0.75 EUR million</p>	<p>26 September 2018</p>



What are Horizon 2020 Prizes

- *"Challenge" or "inducement" prizes, offering a cash reward to whoever can most effectively meet a defined challenge*
- *incentive for innovation by prescribing the goal, but not how the goal should be achieved*



Why regions/cities - I

- ***Societal consciousness*** on renewable energy
- ***Possibilities*** for SMEs
- *Local players* ***as applicants***
- ***Award criteria:***
 - *Involvement of public* (e.g. participation of users, neighbourhood, opinion of local community)
 - *Adaptation/replicability* to other sites
 - *Environmental impacts/economic benefits*



Horizon prize for Integrated Photovoltaic Energy System

- **The challenge:** To develop the most suitable architectural and aesthetical design for photovoltaic energy system in combination with optimal technical solutions, with the least visible impact on and minimal intrusion to the structure of protected historical urban buildings in Europe.
- **€750 000 reward** to a European protected historic urban **district** with perfectly integrated photovoltaic energy system.



The contestant / the winner

- The contestant has to be a community: **the owner(s) or the beneficial owner(s) of the building or group of buildings within a European protected historic urban district** in which the requested new Building integrated photovoltaic system will be installed
- A European protected historic urban district in the context of this competition is defined as a **significant grouping of buildings** in Europe and representative of the period of their construction or history, necessarily **protected by heritage legislation.**



• Award Criteria (100):

- A **new** Building integrated photovoltaic system (20)
 - >50kWp
 - > 2000h operation
- High Quality architectural and aesthetic design (20)
- Reliability, easy maintenance and safety of operation (20)
- Low operation and maintenance costs, energy savings, CO2 emission reduction (20)
- Involvement of public (10)
- Scalability and adaptation to different locations and different types of buildings (10)



Horizon
Prize

LOW CARBON HOSPITAL

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Horizon prize for **Combined Heat and Power (CHP)** installation in a hospital using **100% renewable energy sources**

- **The challenge:** To develop an innovative solution integrating **at least three** European renewable energy technologies into one energy system in a hospital, while ensuring a 100% secure energy supply.
- **€1 million reward** to **a hospital** for innovative solution integrating several technologies into one energy system, which can guarantee uninterrupted energy supply.

Research and Innovation





Horizon
Prize

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#HorizonPrize

The contestant / the winner

- The contest is open to all legal entities (including natural persons) or groups of legal entities **owning or operating a hospital**, in the premises of which the requested application will be installed
- This installation has to use at least three different **European renewable energy technologies** - developed and produced in a Member State of the EU or in a country associated to Horizon 2020 programme.

Research and Innovation





- **Award Criteria (100):**

- A **new** CHP system **(20)**
 - > **2.000.000kWh** (5)
 - > **3700h operation** (5)
 - > **Innovative storage solution** (10)
- Reliability, easy maintenance and safety of operation **(20)**
- CO2 emission reduction and sustainability aspects, potential energy savings **(20)**
- Minimal/non-invasive impact on premises **(10)**
- Low operation and maintenance costs **(20)**
- Involvement of public **(10)**



Horizon prize for CO₂ reuse in innovative products

- **The challenge:** To develop innovative products which reuse CO₂ in order to significantly improve net CO₂ emissions, while overcoming technical, commercial and/or financial barriers.
- **€1.5 million reward** to a **developer** of an innovative product that reuses carbon dioxide (CO₂), making a genuine contribution to achieving net emissions reductions.



The contestant / the winner

- The contest is open to all legal entities (including natural persons) or groups of legal entities.
- Only technologies that utilize CO₂ in the manufacture/fabrication of industrial or consumer products may participate.
- The prize winner will be the entrant that has developed a product demonstrating, over the duration of the contest, the most significant and measurable improvements in the mass of CO₂ utilised in it while overcoming technical, commercial and/or financial barriers



- **Award Criteria (50):**

- Improvement in net CO₂ emissions **(15[8])**
 - Specific computation method
- Demonstrated effort to overcome barriers **(15[8])**
 - Technical, Financial, Commercial
- Exploitation plans **(10[6])**
- Environmental impacts **(10[8])**



Rules of Contest

<https://ec.europa.eu/research/horizonprize/index.cfm>

***One per prize / deadlines / eligibility /
award criteria / procedure***



Thank you!

EC-PHOTOVOLTAICS-PRIZE@ec.europa.eu

EC-LOWCARBON-PRIZE@ec.europa.eu

EC-CO2REUSE-PRIZE@ec.europa.eu

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