

Programme: EU-HORIZON 2020 Excellent science - 2014-2020

Call:

Specific Challenge:

The market for deep renovation of buildings needs to be transformed in terms of technologies, processes and business models. More action is needed for Europe to achieve the higher rates of buildings renovations and spread clean energy technologies in the existing European building stock in order to meet long-term climate and energy targets. In particular, deep renovations need to become more attractive to all relevant stakeholders, more reliable in terms of performance, less disruptive for occupants (especially in residential buildings), less time-consuming, less energy-intensive from a life cycle perspective, more environmentally friendly regarding applied materials and more cost-effective, but also enabling new functions the buildings will play in the energy system of the future (flexibility, storage and RES generation). There is a need to demonstrate and roll out holistic consumer-centred solutions that involve the whole value chain, ensuring high levels of comfort and a high quality of the indoor environment.

Scope:

Projects are expected to increase the depth and breadth of renovations, while integrating clean energy technologies into the building envelop and/or systems.

Proposals are expected, as a minimum, to include the following activities:

Demonstrate deep and/or NZEB renovation approaches more reliable, faster, cheaper and easier to implement than standard practices while avoiding other harmful unintended consequences (e.g. on environment or health);

Demonstrate seamless and cost-effective integration of clean energy solutions in the building envelop and/or systems enabling buildings to play an active role in the energy system (RES generation, flexibility, storage)

Demonstrate a high replication, as much as possible across regions and climatic zones, different economic and social conditions, sustainability and market change potential of the proposed solutions including viable concepts for financing the renovation;

Tackle all relevant barriers (e.g. uptake by the professionals, financing, legal/regulatory framework, decision-making etc.) and suggest solutions to the relevant stakeholders;

Demonstrate effective involvement of, and communication and dissemination to the buildings supply chain, and to the building owners/tenants and other relevant stakeholders.

In addition, proposals should, as much as possible:

Include convincing business models (e.g. combination of smart energy services);

Offer guarantees of energy performance and consumer service;

Employ innovative working practices, processes and offers;

Propose attractive package solutions which offer multiple benefits;

Include monitoring of the real energy performance in-use before and after the renovation.

Furthermore, proposals may also, where relevant:

Establish new or amend existing standards, certificates, protocols or other quality assurance mechanisms including for skilled workers;

Address split incentives and/or counter-productive structures, regulations and incentives;

Pursue step-by-step renovation approaches;

Include one-stop-shop approaches;

Include building logbooks/passports and/or individual building renovation roadmaps and related concepts, as well as lean production approaches;

Offer guarantees of absence of health or environmental risks for workers and users;

Highlight the increased market value of energy efficient property (green investments);

Tackle peak load savings and demand response;

Improve the Smartness Readiness Indicator (SRI) of the dwelling.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 2 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

Proposals are expected to demonstrate the impacts listed below, using quantified indicators and targets wherever possible:

Primary Energy savings triggered by the project (in GWh/year)

Investments in sustainable energy triggered by the project (in million Euro);

Replication of the chosen renovation approach in specific districts/ cities/ regions/ countries to reach an increased rate of deep/nZEB renovation at large scale;

Number of public or private renovation schemes set up;

Building renovations triggered (in number of dwellings or square meters).

Additional positive effects can be quantified and reported when relevant and wherever possible:

Reduction of the greenhouse gases emissions (in tCO₂-eq/year) and/or air pollutants (in kg/year) triggered by the project.

Renewable energy generation triggered by the project (in GWh/year).

Cross-cutting Priorities:

Socio-economic science and humanities
Clean Energy

Topic/s:

1. Eligible countries: described in Annex A of the Work Programme.

A number of non-EU/non-Associated Countries that are not automatically eligible for funding have made specific provisions for making funding available for their participants in Horizon 2020 projects. See the information in the Online Manual.

2. Eligibility and admissibility conditions: described in Annex B and Annex C of the Work Programme.

Taking into account the nature of the activity and with the objective to maximize the European Added Value and European market uptake through transnational collaboration[[Transition towards Secure, Clean and Efficient Energy and the Energy Union project are cross-national policy initiatives and priorities aiming at trans-national solutions.]], the following additional eligibility criteria apply for Coordination and Support Actions (CSA):

at least three legal entities shall participate in an action;

each of the three legal entities shall be established in a different Member State or Associated Country

all three legal entities shall be independent of each other within the meaning of Article 8 of the Rules for Participation.

Proposal page limits and layout: please refer to Part B of the proposal template in the submission system below.

3. Evaluation:

Evaluation criteria, scoring and thresholds are described in Annex H of the Work

Programme.

Submission and evaluation processes are described in the Online Manual.

4. Indicative time for evaluation and grant agreements:

Information on the outcome of evaluation (single-stage call): maximum 5 months from the deadline for submission.

Signature of grant agreements: maximum 8 months from the deadline for submission.

5. Proposal templates, evaluation forms and model grant agreements (MGA):

Coordination and Support Action:

Specific provisions and funding rates

Standard proposal template

Standard evaluation form

General MGA - Multi-Beneficiary

Annotated Grant Agreement

6. Additional provisions:

Horizon 2020 budget flexibility

Classified information

Technology readiness levels (TRL) – where a topic description refers to TRL, these definitions apply

Members of consortium are required to conclude a consortium agreement, in principle prior to the signature of the grant agreement.

7. Open access must be granted to all scientific publications resulting from Horizon 2020 actions.

Where relevant, proposals should also provide information on how the participants will manage the research data generated and/or collected during the project, such as details on what types of data the project will generate, whether and how this data will be exploited or made accessible for verification and re-use, and how it will be curated and preserved.

Open access to research data

The Open Research Data Pilot has been extended to cover all Horizon 2020 topics for which the submission is opened on 26 July 2016 or later. Projects funded under this topic will therefore by default provide open access to the research data they generate, except if they decide to opt-out under the conditions described in Annex L of the Work Programme. Projects can opt-out at any stage, that is both before and after the grant signature.

Note that the evaluation phase proposals will not be evaluated more favourably because they plan to open or share their data, and will not be penalised for opting out.

Open research data sharing applies to the data needed to validate the results presented in scientific publications. Additionally, projects can choose to make other data available open access and need to describe their approach in a Data Management Plan.

Projects need to create a Data Management Plan (DMP), except if they opt-out of making their research data open access. A first version of the DMP must be provided as an early deliverable within six months of the project and should be updated during the project as appropriate. The Commission already provides guidance documents, including a template for DMPs. See the Online Manual.

Eligibility of costs: costs related to data management and data sharing are eligible for reimbursement during the project duration.

The legal requirements for projects participating in this pilot are in the article 29.3 of the Model Grant Agreement.

8. Additional documents:

- 1. Introduction WP 2018-20
- 10. Secure, clean and efficient energy WP 2018-20
- 12. Climate action, environment, resource efficiency and raw materials WP 2018-20
- 18. Dissemination, Exploitation and Evaluation WP 2018-20

General annexes to the Work Programme 2018-2020

Legal basis: Horizon 2020 Regulation of Establishment

Legal basis: Horizon 2020 Rules for Participation

Legal basis: Horizon 2020 Specific Programme

AG1 priority fields: Energy

Co-funding type:

Co-funding type: € euro

Co-funding euro maximum: 4 000 000,00 €

Project budget maximum: 4 000 000,00 €

Opening date: 16 Jul 2019

Deadline date: 15 Jan 2020

Field: Energy