

Energy Issues in Cultural Heritage
Belangstelling voor deelname aan Horizon 2020 projecten

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The Cultural Heritage Agency of The Netherlands (RCE) conducts research and advises owners and managers of moveable and immovable cultural heritage on their conservation and preservation. One of its main programs is “Sustainable Cultural Heritage”. The objective of this program is to help local and provincial authorities, and owners and managers of historic buildings find a balance between technical solutions for the efficient use of energy or for reducing energy usage on the one hand, and maintaining the cultural value of the structure on the other hand. This includes both protected and unprotected buildings and monuments, as well as museums.

The RCE is investigating technical solutions and the definition of cultural value related to the following issues:

1. The renovation of historic buildings and monuments involving the application of technical solutions for energy savings and efficiency.
2. The application of alternative energy sources to historic buildings and monuments, including, solar, wind and bio-energy, heat pumps, and other practical solutions. This includes
 - design of solar cells/panels which look like historic roofing tiles (e.g. black or red clay)
 - insulation materials
 - small wind turbines
3. The incorporation of historic buildings and monuments in neighbourhood/district energy solutions, such as collective solar energy production, shared underground heat storage or heat pump systems. This includes both technical and policy solutions.
4. Development of public policy for the energy efficiency of historic buildings and monuments.
5. Reducing the energy costs for museums, storage depots, and other institutes with collections of moveable cultural heritage (objects).

RCE is open to all forms of cooperation. Given her position as an applied research institute and her advisory role, RCE can, in particular, contribute through case studies (demonstrations). Research oriented tasks are also possible, especially considering the assessment of cultural value. RCE can thus consider participating in some way in one or more of the following (tentative - situation in January 2014) Horizon 2020 areas (a * indicates better relevance to RCE goals based on the Horizon 2020 texts):

- EE1 - Manufacturing of prefabricated modules for refurbishments of buildings
- EE3* - Energy strategies and solutions for deep renovation of historic buildings
- EE5* - Increasing energy performance of existing buildings through process and organization innovations and creating a market for deep renovation
- EE6* - Demand response in blocks of buildings
- EE13* - Technology for district heating and cooling

EE14 - Removing market barriers to the uptake of efficient heating and cooling solutions

EE17* - Development and demonstration of energy-efficient products, processes and services by SME's

LCE3* - Demonstration of renewable electricity and heating/cooling technologies

LCE8* - Local/small-scale storage

LCE9 - Large scale storage

LCE11 - Developing next generation technologies for biofuels and sustainable alternative fuels

LCE12 - Demonstrating advanced biofuel technologies

LCE14* - Market uptake of existing and emerging sustainable bioenergy

LCE18* - Supporting Joint Actions on demonstration and validation of innovative energy solutions

SCC4 - Establishing a challenge prize competition: Smart solutions for creating better cities and communities