



Topic LIFE-2021-CET-COOLING

Facing the increase in cooling demand of buildings



Piotr Wais, Project Manager, CINEA, Unit D1

Specific challenges

- Key EU-wide targets and policy objectives for the period from 2021 to 2030
 - at least 40 % greenhouse gas emission reduction, compared to 1990
 - at least 32% share for renewable energy
 - at least 32.5% improvement in energy efficiency
- almost 50 % of Union's final energy consumption is used for heating and cooling, and the cooling needs of buildings have considerably risen, then it is essential to:
 - implement integrated solutions to drive down the cooling needs of buildings
 - decarbonise the EU building stock,
 - deploy local renewable energy potential,



Scope

Proposals should

- provide a comprehensive understanding of the cooling demand in buildings and develop appropriate strategies on how this demand can be most effectively managed (i.e. by reducing demand, improving energy efficiency, increasing the share of renewable energy)
- complement existing assessments, roadmaps and strategies, through a bottom-up approach, starting from the local context and derive conclusions for the national and European level,
- support approaches and activities to integrate cooling solutions in public and private decision-making process, planning, design and implementation



Scope

The proposed actions are expected to

- contribute to a better understanding of state-of-the-art cooling technologies in buildings, including passive cooling solutions,
- contribute to a better understanding of measures to reduce cooling demand, including improving the overall energy performance of the building (e.g. use of active shading, automation and control systems),
- provide cost-benefits analyses of the proposed solutions,



Scope

The proposed actions are expected to

- cover residential and non-residential buildings while paying special attention to residential buildings, in particular with regard to thermal comfort and consider aspects such as lifestyle and user behaviour,
- make the link to the neighbourhood level and consider aspects of local and urban planning as well as aspects related to the local grids (e.g. distributed electricity networks),
- identify key actors responsible for planning and implementing cooling solutions (municipalities, urban planners, architects, ESCOs/ engineering companies, energy advisers, installers etc.) and develop methodologies which ensure that cooling needs are met in an optimal and integrated way,



Scope

The scope of the topic is to

- identify a set of tailored solutions and services for cooling, such as services that involve integrated designs and planning, or effective implementation of integrated/ holistic solutions (e. g. innovative cooling technologies and active building elements),
- develop recommendations for policy makers, regulatory bodies, planners and industry, and business representations (e.g. chambers of commerce) at different levels in line with existing policy instruments,
- propose methodologies which facilitate existing financing schemes, notably public funds, e.g. at national level, to take into account cooling needs and measures to reduce cooling demand and deploy best available cooling technologies,



Scope

The proposed solutions and approaches, both technological and non-technological, should be subject to an element of validation. This can include testing of key aspects of the solutions in a real environment (e.g. existing buildings) and/or simulation.



Expected Impacts

- Proposals are expected to demonstrate the impacts listed in the topic description using quantified indicators and targets wherever possible:
 - Better understanding of the cooling demand of buildings to reduce cooling demand and improving the overall energy performance of the building
 - Better understanding of the impact on the neighbourhood level and local grids
 - Increased up-take and use of integrated solutions and services by market actors
 - Up-take and consideration of integrated solutions inside renovation schemes and financing instruments, notably at national level



Expected Impacts

- Proposals are expected to demonstrate the impacts listed in the topic description using quantified indicators and targets wherever possible:
 - Improved reporting under the National Climate and Energy Plans (NECPs) and for the Comprehensive assessments under Article 14 of Directive 2012/27/EU on energy efficiency
 - Improved accuracy and meaningfulness of demand side models
 - Primary energy savings/Renewable energy generation triggered by the project (in GWh/year)
 - Investments in sustainable energy triggered by the project (cumulative, in million Euro)
- Proposals should support savings with credible data and calculation methods.



Other information

- **The whole topic description is available on the “Funding & Tenders Portal”**
- Funding rate: 95%
- For Topic LIFE-2021-CET-COOLING
 - The Commission considers that proposals requesting a contribution from the EU of up to EUR 2 million would allow the specific objectives to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

• **Questions?**

CINEA-LIFE-CET@ec.europa.eu



Further Clarification

Deployment of local renewable energy potential

The proposal should work, among others, on an assessment of best available space cooling technologies, passive cooling solutions, and identify a set of tailored solutions and services in order to improve the overall energy performance of buildings and increase the share of renewable energy.



Further Clarification

Work with residential and non-residential buildings

Proposal should cover both residential and non-residential buildings while paying particular attention to residential buildings, in particular with regard to thermal comfort and consider aspects such as lifestyle and user behaviour.



Further Clarification

Different activities in the topic description

All the objectives of the topic will be taken into consideration during the evaluation process and an excellent proposal should appropriately address them.

Experts evaluate the proposal taking into consideration the relevance, impact, quality and resources. It will be up to proposers to demonstrate how the suggested activities will contribute to the topic challenges and expected impacts.



Further Clarification

Testing, validation, and/or simulation

The proposed solutions and approaches should be subject to an element of validation. The topic description gives applicants freedom to come up with approaches to validate their activities. It can include testing of key aspects in a real environment (e.g. existing buildings) and/or simulation. Using simulations, prepared models and its accuracy should be correctly validated with the real data (bottom-up approach).



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Thank you



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