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Training Programme:

The benefits of energy renovations

Topic III

Co-funded by the European Union

Definition

- In addition to reducing consumption and energy bills, energy renovations offer many other benefits, e.g., job creation, improved health and well-being, especially for vulnerable groups, less greenhouse gas emissions, and reduced harmful emissions.

- Benefits can exist at different levels, e.g., individual, social, etc., and may vary depending on the country, the type of building, the renovation measure, the ownership of the building, etc.

The identification of benefits is essential to attract more energy retrofit actions.

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Benefits categories

Economic

Environmental

Social

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Economic benefits

01. Lower energy costs

Households can save money on energy costs and increase disposable income that can be spent on other goods and services, boosting the economy.

02. Increase in the value of the home

Energy renovations can increase the value of the home.

03. Improved productivity

The public health benefits of improving the quality of the indoor and outdoor air environment are estimated to improve productivity by 10%.

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Economic benefits

04. Job creation

It is estimated that 17-19 new job positions are created for every €1 million spent on energy renovations.

(R. Janssen, D. Staniaszek, 2012, A Survey of the Employment Effects of Investment in Energy Efficiency of Buildings, The Energy Efficiency Industrial Forum)

05. Reducing the need for subsidies

Energy renovations can reduce the pressure on public finances by reducing the public expenditure needed to finance them.

06. New opportunities and technologies

Energy renovations boost innovation in both new products and services.

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Environmental benefits

Reduction of greenhouse gases

By reducing the demand for electricity and thermal energy, CO_2 and other greenhouse gas emissions are decreased, helping to mitigate global warming. For example, it is estimated that deep energy renovations can reduce final energy consumption by 75% by 2050, compared to 2010.

Reduction of air pollution / environmental protection

Due to lower energy consumption, deep energy renovations contribute to environmental protection, reduce waste and air emissions, and ease pressure on ecosystems.

Reduction of construction and demolition waste

Energy renovations help conserve resources and minimize waste, as renovating existing buildings requires fewer materials per square meter.

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Social benefits

01. Improving social well-being and tackling energy poverty

Energy renovations can help to mitigate energy poverty by reducing energy bills, making energy services more affordable, and ensuring a basic level of comfort and well-being.

02. Reduced mortality and morbidity

Energy renovations can reduce mortality and morbidity rates associated with extreme temperatures and indoor air pollution, especially for vulnerable populations (e.g., those suffering from high blood pressure, heart, lung, and kidney disease, asthma, etc.). They also reduce the incidence of morbidity and mortality associated with air pollution from fossil fuel combustion.

03. Increased comfort

The Energy upgraded house offers better thermal comfort, winter and summer.

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Social benefits

04. Improved energy security

The reduction in energy demand reduces the need for imports of energy products.

05. Knowledge development

Energy renovations create opportunities to develop knowledge and skills in energy-saving technologies and practices.

06. Environmental awareness

Energy renovations can increase environmental awareness, encourage sustainable behaviours, and contribute to a wider societal shift towards a more sustainable and green future.

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Social benefits

07. Reducing social inequalities

Energy renovations, through job creation, improved health and well-being, and more affordable and energy-efficient services, can promote social equality. However, there are also concerns that renovations may reinforce existing social inequalities through the phenomenon of 'gentrification'

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Thank you!

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