

IEA-SHC TASK59: FACT SHEET

Multidisciplinary planning process:

Enhancing the use of the European standard EN 16883:2017

GUIDELINES AND STANDARDS

This is part of a series of fact sheets meant to facilitate and enhance the use of the European standard EN 16883:2017 Conservation of cultural heritage – Guidelines for improving the energy performance of historic buildings.

This particular fact sheet presents other guidelines and standards that can be used as a supplement to EN 16883.

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Renovating Historic Buildings Towards Zero Energy
Multidisciplinary planning process
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GUIDELINES AND STANDARDS

Name	Short description	Pros and cons
Energy Efficiency and Historic Buildings: How to Improve Energy Efficiency, Historic England, 2018	English guidelines for homeowners on how to improve energy efficiency in traditional residential houses.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Energy Efficiency and Historic Buildings: Insulating solid ground floors, Historic England, 2016.	English guidance on the methods, materials and risks involved with insulating solid ground floors.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Energy Efficiency and Historic Buildings: Insulation of suspended timber floors, Historic England, 2016.	English guidance on the methods, materials and risks involved with insulating suspended timber ground floors.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Historic design guidelines: Windows: repair, replacement, and new construction, Historic England, 2015.	English guidance on practical solutions to repair, replace and add windows to historic constructions, paying attention to both the energy and comfort aspects.	Windows retrofit measures are clear defined. It is mainly for non expert users.
Energy Efficiency and Historic Buildings: Insulating solid walls, Historic England, 2016.	English guidance on the principles, risks, materials and methods for insulating solid masonry walls.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Energy Efficiency and Historic Buildings: Secondary glazing for windows, Historic England, 2016.	English guidance on the principles, risks, materials and methods for upgrading the thermal performance of windows by the addition of secondary glazing.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Energy Efficiency and Historic Buildings: Insulating timber-framed walls, Historic England, 2015.	English guidance on the methods, materials and risks involved with insulating the walls of timber framed buildings.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Energy Efficiency and Historic Buildings: Insulating pitched roofs at ceiling level-cold roofs, Historic England, 2016.	English guidance on the principles, risks, materials and methods for insulating pitched roofs at ceiling level.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Energy Efficiency and Historic Buildings: Insulating flat roofs, Historic England, 2016.	English guidance on the principles, risks, materials and methods for improving the thermal performance of flat roofs by the addition or upgrading of insulation.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Love your Old Home by Oxford City Council Sustainable Traditional Buildings Alliance, 2013	English guidance for home owners, presenting a four step process for planning energy efficiency improvements in traditional homes. It contains a questionnaire for home owners and guidance for choosing appropriate improvements.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Fabric Improvements for Energy Efficiency in Traditional Buildings. Historic Scotland Short Guide 1, 2013	Scottish guidance presenting a series of practical solutions to improving energy efficiency in traditional and historic buildings, through a range of fabric improvements measures to different elements of a structure.	Technical data with simple step explanations could support users and professionals in the planning process.
Micro-Renewables in the Historic Environment Historic Scotland Short Guide 8, 2013.	This guide discusses the use of renewable energy in the historic environment and highlights questions and considerations for when the installations of such systems are being contemplated.	Some examples give the perception of what can be done or not, with small description of the micro-renewable system. No cons.
Managing change in the historic environment windows, 2018.	This guide sets out the principles that apply to altering the windows of historic buildings. It has been produced to guide local authorities when developing their planning policies and in the determination of applications relating to the historic environment.	The guide is easy to be read, direct also to not expert users. It is just focused on windows.

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Energy Heritage. A guide for improving energy efficiency in traditional and historic homes, Edinburgh World Heritage, Changeworks, 2008.	This English guidance presents a planning procedure and a series of practical solutions to improving energy efficiency in traditional and historic buildings-	Technical data with simple step explanations could support users and professionals in the planning process.
Renewable Heritage: A guide to microgeneration in traditional and historic homes, Edinburgh World Heritage, Changeworks, 2009.	This comprehensive guide encourages and facilitates a reduction in fossil fuel use in traditional and historic homes through the integration of renewable energy systems	The concepts are expressed in a simple and linear way, including also technical data and case studies useful for inexperienced and expert users.
A homeowner's guide to preserving and enhancing the character of your conservation area - Bradford District Council	English guidance for home owners presents a series of practical solutions to preserve and retrofit traditional and historic buildings, through a range of fabric improvements measures to different elements of a structure.	The concepts are expressed in a simple and linear way, useful for inexperienced users.
Optimization of energy interventions in building of historical architectural value, EnBAU Project, SUPSI, 2012.	This guidance presents a method to assess retrofit solutions and a series of practical solutions to preserve and retrofit traditional and historic buildings, including renewables solutions. The final part includes some best practices.	This is a short guide for improving historic buildings.
Built to last. The Sustainable Reuse of Buildings, Dublin City 2004.	The aim of this guide is to promote environmental, economic and cultural sustainability. This guidance is divided (i) introduction, (ii) recommendations, (iii) case studies methodology, (iv) results, (v) supplementary information.	The interventions are expressed evaluating the impact from an environmental, economic and cultural viewpoint.
Improving Energy Efficiency in Historic Buildings by Secretary of the Interior's Standards for Rehabilitation, National Park Service U.S. Department of the Interior Technical Preservation Services, 2011.	US guidance for the improvement of historic buildings, with a collection of measures and tips to intervene.	The guide is easy to use also for non experts.
Altamirano-MedinaH., Mumovic D., Davies M., Ridley I., Oreszczyn T., 2009. Guidelines to avoid mould growth in buildings, Advanced Buildings Energy Research, 3.	English guidelines on how to avoid mould growth in buildings.	Quite technical.

Project structure

The project consists of four work packages called “Subtasks”

Subtask B > Multidisciplinary planning process

led by Uppsala University, Sweden

Investigate how existing guidelines for improving the energy performance of historic buildings can be enhanced and complemented in order to better meet the needs of the end user by providing an integrated design platform

Organizational details

Full project title

Deep Renovation of Historic Buildings Towards Lowest Possible Energy Demand and CO₂ Emission (NZEB)

Project sponsor

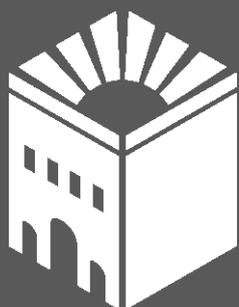
International Energy Agency's
> Solar Heating & Cooling Programme (SHC) Task 59
> Energy in Buildings and Communities (ECB) Annex 76

Duration

September 2017 – February 2021

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