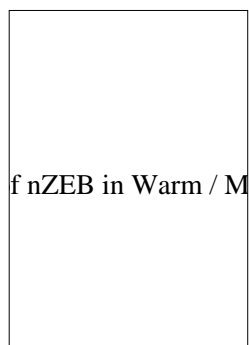


nZEB in Warm/Mediterranean climates

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TaskForce key Documents & Outputs

Report on Usability of nZEB in Warm / Mediterranean climates

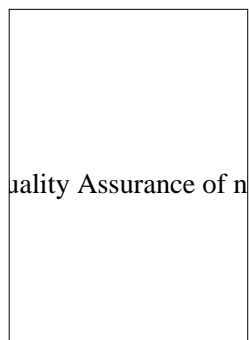


The aim of this publication is to detect barriers and opportunities for promoting nZEB on the basis of the experiences of both end-users (tenants) and building owners/property managers (Social Housing Operators). Including tenants' feedback in post-occupancy building performance evaluations is key since it is the occupant's behaviour that influences the building performance; this was showed in many studies that correlated measured data in low-energy dwellings with occupant survey responses and concluded that tenants' behaviour is a significant factor in the deviation between calculated and observed energy consumption.

The questionnaire, addressed to households of the selected test cases was designed with the aim to detect end-users concerns, particularly by looking at tenants indications for improving quality, comfort and "in-use characteristics" of the dwelling without forgetting health-related aspects. In addition to the questionnaires, walkthroughs and interviews were carried out in order to report user satisfaction about energy saving and/or electricity costs. This approach is an important part of the quality assurance scheme, since it enabled the detection and corrections of problems, that could lead to a lack of confidence in nZEB. In addition data about general nZEB performance and challenges in operation and maintenance were obtained by semi-structured interviews with building owners and property managers.

Download here the report "Usability of nZEB in Warm / Mediterranean climates".

Report on Operating Costs including Quality Assurance of nZEB in Warm / Mediterranean climates



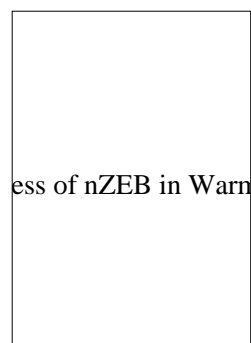
This report intends to analyse the various components that concur to the overall operating cost of a nearly-Zero Energy Building. The study of these components, such as the energy needed for different purposes like space heating, hot water production and auxiliary energy for ventilation systems and pumps, should also include the analysis of inspection & control, cleaning & maintenance and repair costs.

Not all of these cost components are always easy to identify and clear to separate; furthermore, there is also the "complication" of the trade- off between investment and operating costs: some systems are more expensive to purchase but the energy source

itself is less costly than others, likewise, some systems are more expensive to operate and maintain. Having a clear understanding of all these costs and being able to compare the different options on the market is key to make cost optimal investment choices in the design phase of the new-build or refurbishment projects.

Download here the report "Operating Costs including Quality Assurance of nZEB in Warm / Mediterranean climates".

Report on Cost Effectiveness of nZEB in Warm / Mediterranean climates

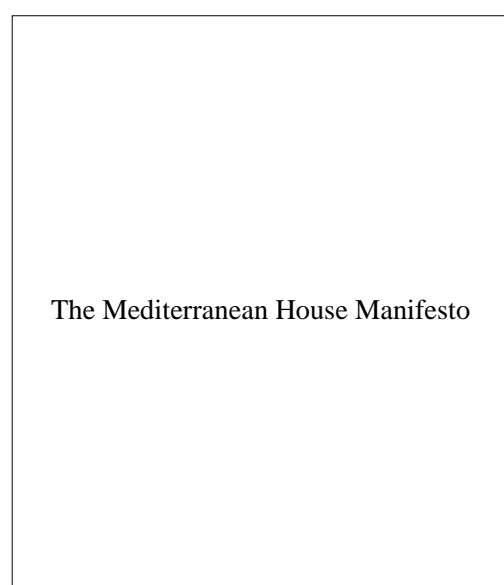


The scope of this publication is to provide a clear idea of the cost effectiveness of Low Energy and nearly-Zero Energy Buildings in Warm/Mediterranean climates. The study is based on the direct experience of low energy buildings in Italy, France and Spain, including both new constructions and refurbishments projects. The information provided by Housing Managers responsible for the projects, as well as information collected from other studies, were key to help drafting this report.

To assess the cost effectiveness of the operations, parameters such as Investment costs (construction/refurbishment costs including design costs and taxes) vs. Running costs as well as the Improved comfort that is reflected into higher users satisfaction, have been identified and analysed. Concerning the latter, it is indeed important to underline that beside the financial calculations that concur to assess the cost effectiveness of a project, it is also important to consider that a share of the potential energy savings is actually consumed to get a better indoor climate and comfort for tenants, this should also be somehow considered as a (very) positive outcome of building or renovating to a low energy standard.

Download here the report "Cost-effectiveness of nZEB in Warm/Mediterranean climates".

The Mediterranean House Manifesto



The efforts made in recent years on the implementation of the EU Directives on energy efficiency in buildings improved the energy performances of new constructions (mainly for the winter period), and partially, of the existing building stock. However, a good margin for improvement still exists, especially in Mediterranean countries during the summer period.

In Mediterranean Countries, the implementation of the European Directives has led to the introduction of northern-European construction models and techniques such as deep insulation and control of ventilation (with the purpose of limiting thermal losses connected to this). This approach entails some risks:

- it could create meaningful comfort-related problems for some typology of users, mainly elderly population, meant to increase in

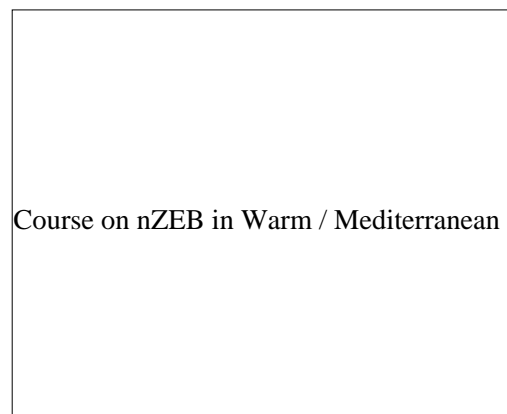
the years ahead;

- it could lead to health-related problems, forcing the use of devices whose installation and use is not suitable for the typology of the end-users.

For the reasons listed below, the members of the Warm/Mediterranean Climates TaskForce drafted a document in 10 points describing how the TaskForce intends a nearly-Zero Energy Building designed for Mediterranean climates.

Download here the “Mediterranean House Manifesto in English, Italian, French and Spanish”.

On-line Course on nZEB in Warm / Mediterranean climates



AVS, the Spanish Association of Public Social Housing and Land Providers, in collaboration with IVE, the Valencian Institute of Building, designed an on-line course (in Spanish) of four modules of 20 hours each dedicated to Spanish social housing practitioners. The aim of the course (that started in March 2013 - attended by some 60 participants) was to provide participants, bearing in mind the different academic backgrounds, with an adequate level of knowledge about energy efficiency, use of renewables and the legal and financial framework in place in order to help them in their path towards nZEB.

Similarly, Federcasa, The Italian Federation of Public Housing Providers, with the technical support of CasaQualità, developed and kicked-off in April 2015, in cooperation with the Department of Energy of the Polytechnic of Milan, an advanced module (in Italian) of 22 hours dedicated to Italian social housing practitioners.

TaskForce relevant Projects & Resources



To capitalise on the work done in the framework of other EU-funded projects and explore synergies with them, the Members of the Warm/Mediterranean TaskForce relied on the ‘Plug-in to POWER HOUSE’ session of the website, where key outputs of concluded and ongoing projects were collected and made available.

Click here to access relevant resources for nZEB in Warm/Mediterranean climates.

Source:

http://www.powerhouseeurope.eu/nearly_zero_taskforces/nzeb_in_warmmediterranean_climates/key_outputs_resources/