

STEP 8 - POLICY RECOMMENDATIONS FOR EE BUILDINGS



Second Level: Cross sectoral policy recommendations

GovernEE project addresses the problem of public sector as energy consumer considering the inefficient use of energy in public buildings that often are also historic buildings. The initiatives in the field of energy efficiency (EE) and use of renewable energy sources (RES) is of primary importance. The emphasis on the public sector is important in terms of the pivotal role of policy-makers in municipal institutions in highlighting energy issues in sustainable urban development as well as setting good examples. Therefore, the project sets the stage for the improvement of decision-making and planning competences as well as the commitment of policy-makers. These are important aspects of good governance, which is the overarching element of the project.

The document contains recommendations on administrative, legal and financial frameworks towards developing effective decision-making and planning processes regarding EE and RES in public heating and more specifically on how EE and RES could be improved in historic building blocks and what measures need to be taken for bridging legislative gaps in this sector. The main aim is to find joint recommendations for the common European challenge of improving EE and RES in public buildings.

In EU the responsibility of cultural heritage is distributed among national, regional and local public authorities. There are different levels of restraint of the cultural heritage functional to the characteristics and quality of heritage consisting in two levels of protection: cultural heritage and landscape. In case of refurbishment any internal or external intervention of ordinary or extraordinary maintenance has to be authorized by the Authority that protects the historic and cultural heritage of the country.

Renovating historic buildings with retrofitting purposes being compatible with the cultural characteristics of the building is the first step towards a real conservation of that heritage which is widespread, fragile, and expensive to maintain.

Having excluded historic buildings from the Energy Performance of Buildings Directive (Directive 2010/31/EU), does not exclude them from the possibility of being retrofitted with caution, considering each case and in particular by acting with greater flexibility on mechanical, thermal, electrical and/or electronic components systems, to make them more suitable to the needs of use, or to optimize the total energy behaviour of the buildings, also in case as for the interventions on the building envelope with due caution for architectural integrity of the building.

The most suitable interventions should be defined through a thorough knowledge of the building and the relationship with the context where it is located. Ancient historic building constructions have to be fully understood to avoid the use of materials and techniques that are not compatible with the tradition and the misunderstanding of the structural features of the buildings that led to the current state of disrepair of main town centres. Detailed study of the structures is of most importance.

One of the main problems when approaching the issue of EE and RES in public and historic buildings is their governance. Many times decision makers both stakeholders and politicians have weak energy conscious approach of governance in the process of policy making and/or commitment in the issue of sustainability. Besides the regulations and legislation barriers and the finding of an appropriate solution for improving EE of an historic building there is also the economic problem of high costs of these solutions.

In the framework of the GovernEE project, Partners agree about the necessity to deal with:

- Approval by the Cultural Heritage Office and/or the Department of Preservation for Historic Monuments:
 - Cultural Heritage Office and/or the Department of Preservation for Historic Monuments department aim is to make the better choice for the building,
 - Therefore standard intervention on historic buildings are not available (for ex. installation of photovoltaic panels),
 - On the contrary an integrated approach has to be adopt which, departing from the collection of several data, is able to depict the past, the present and the future of the building suggesting the solutions which better fit with the structural, historical, systems, and users' building characteristics.
- The database of public historic buildings:
 - The database should be based on the energy database of the public building stock which has a key role in the governance of public buildings, helping the elaboration of Action Plans and programs of intervention and preventative maintenance. The database has to be organized as an information tool/platform where specific data related to each single building should converge periodically.
 - On the base of the database integrated management of buildings, facilities and energy sources can guarantee good governance results.

In the next pages policy recommendations are suggested for the European, National and Local level.

The Governance Model – Cross sectorial recommendations
(WP numbers have to be linkable to the reports and allow to download them from the oCC)

<i>European level</i>	<i>National level</i>	<i>Local level</i>
1. Adopting Directive harmonizing historic buildings with renewable energy sources and energy efficiency issues (WP 3.3.6)	5. Adopting the Directive by the Ministry of Cultural Heritage consulting Cultural Heritage Offices / Department of Preservation of Historic Monuments (WP 3.3.6)	10. Harmonizing the Cultural Heritage Offices / Departments of Preservation of Historic Monuments procedures in order to: <ul style="list-style-type: none"> • make the process more effective, efficient and time restricted (WP 3.3.6, WP 4.3.1, WP 4.3.3, WP 4.3.5) • suggest the energy retrofitting in case of building renovation (WP 4.3.1) • search for new technical solutions (WP 4.3.1, WP 4.3.2)
2. Adopting Directive emphasizing the role of public authorities	6. Developing and promoting Energy Performance Contract scheme (WP 3.3.2, WP 3.3.8)	11. Implementing EE/RES tailor-made financial tools and involving the financial sector (WP 3.3.1, WP 3.3.5, WP 3.3.8) <ul style="list-style-type: none"> • Third Party Financing (TPF) and Energy Service Companies (WP 3.3.1, WP 3.3.8) • Private-Public-Partnership (PPP) (WP 3.3.1) • Financial feasibility (WP 3.3.5)
3. Developing special funds and issuing special calls because: <ul style="list-style-type: none"> • projects on cultural heritage buildings are not conventional from the technological and administrative point of view and therefore are more expensive than the traditional one (WP 4.3.2, WP 4.3.3) • Directorate-General dealing with the cultural heritage topic has not been set up 	7. Applying, because of projects on cultural heritage buildings are expensive: <ul style="list-style-type: none"> • Special funds, instruments and mechanisms • Incentives and subsidies (e.g. progressive tax credits for energy efficiency and renewables) 	
		12. Implementing EE/RES tailor-made technical tools (WP 3.3.5, WP 3.3.8, WP 4.3.1, WP 4.4)
		13. Implementing EE/RES tailor-made administrative tools (WP 3.3.1, WP 3.3.2, WP 3.3.8, WP 4.4) <ul style="list-style-type: none"> • Harmonizing and coordinating administrative procedures in order to make the process more effective and efficient (WP 3.3.1, WP 4.3.1, WP 4.3.2, WP 4.3.3, WP 4.3.4, WP 4.3.5) • Setting up the Energy Manager Office with authority on decision-making, technical-administrative offices, public buildings energy database (WP 3.3.1) • Drawing up public contracts (work contracts, service

		<p>contracts, supply contracts) including energy performance index (WP 3.3.1), e.g. energy supply contract</p> <ul style="list-style-type: none"> • Drawing up Energy Performance Contracts (WP 3.3.2) which overcomes the Stability Pact constraint
	<p>8. Adopting:</p> <ul style="list-style-type: none"> • the National Plan of Action for Energy Efficiency (NEEAP) as required by the Directive 2006/32/EC • the National Energy Strategy/Policy 	<p>14. Implementing EE/RES tailor-made legal tools (WP 3.3.1, WP 3.3.8)</p> <ul style="list-style-type: none"> • general framework for a methodology of calculation of the integrated performance of buildings • setting of minimum standards in new and existing buildings • energy certification of buildings • inspection and assessment of heating and cooling installations (WP 3.3.1)
		<p>15. Carrying out Local Action Plan in order to decide the „what“, „how“, „how much“, „who“ (WP 3.2.1, WP 3.3.3, WP 3.3.8)</p>
		<p>16. Setting up the energy database in order to monitor energy consumption of the public real estates and the energy costs (WP 3.2.1, WP 3.3.5, WP 4.2.1)</p>
		<p>17. Being and keeping constantly informed thorough energy manager (if available), local energy agencies / consultants about (WP 3.2.1, WP 3.3.4, WP 3.3.8):</p> <ul style="list-style-type: none"> • laws • technologies • funding
<p>4. Financing research at EU level in order to find tailor-made applications on historic buildings (WP 3.3.4, WP 4.3)</p>	<p>9. Financing research at national level in order to find-tailor made applications on historic buildings (WP 3.3.4)</p>	<p>18. Financing research at local level in order to apply tailor-made applications on historic buildings (WP 3.3.4, WP 3.3.8)</p>
		<p>19. Disseminating good practice in order to modify users' habits (WP 3.2.1, WP 3.2.2, WP 3.2.3, WP 4.4)</p>



HISTORIC BUILDINGS

proposal Historic Buildings Classification

As for the historical heritage stock Directive 2010/31/EC, allows that Member States may decide not to set or not apply the requirements for energy efficiency (and certification) in the historic buildings: ... "for certain categories of buildings and in particular buildings officially protected as historical heritage (for their architectural or historic value), to the extent which compliance with certain minimum energy performance conditions could involve unacceptably alter their character or appearance...".

At the legislative level greater flexibility should be allowed and local authorities should be given the possibility to assess the applicability of conservation maintenance including energy performance case-by-case.

Local governments could introduce in their regulatory tools a diversified classification of buildings, achieved through a thorough understanding of the building and the relationship with the context in which it is inserted, which crosses the historic value of the building with energy saving measures most suitable to be realized.

In addition to buildings or sites currently listed in the national protection list, other categories could be identified at the local level, starting from buildings with artistic value to descend to those considered as historical because of their age but not because of particular artistic merit.





In any case, interventions should always be examined with high attention in order to check their consistency with the existing situation.

Along with creation of specific categories of buildings and sites, local governments could carry out an in-depth performance analysis of buildings in order to assess which EE measure may be eligible in each building.

In this direction, some European Countries (Netherlands and Denmark) have already adopted classification methods:

- The changeability index, which is part of the (Dutch) DuMo method.
- The (Danish) SAVE/Architecture and Energy Refurbishment concept

These methods are similar to each other and are of relatively simple application: it is required to make an assessment on a gradual scale, or within categories, the amount of energy saving options feasible in buildings, even though of course what are the measures will vary from case to case.

A LISTED BLDG	B SAVE 1	C SAVE 2	D SAVE 3
		E-SAVING OPTIONS	
NEGOTIATION SPACE			
CULTURAL VALUE • Very limited	•• Limited	••• Acceptable	•••• High
			

Retrofit implementation category	Mo-value	Definition	Level of possible energy retrofit
A.	1	Monuments with high documental level, which may not be altered and are used for specific functions (like museums)	No retrofit is possible unless preserving the original aspect of the building
B.	2	Monuments with documental level, but where functions may be adjusted.	Retrofit may be performed on specific building components
C.	3	Historical buildings used for ordinary activities (like schools and offices)	Good level of retrofit options, with limitation to specific components
D.	4	Old buildings with no specific cultural heritage	Full retrofit with preservation of specific components