

Lisbon framework for urban edification

Summary

Lisbon Municipality approved in 2008 the new framework for urban edification, RMUEL. In this framework, the Lisbon Municipality included for the first time a chapter dedicated to energy efficiency and renewable energies integration. Clear guidelines are presented towards the integration of sustainable practices in urban operations, namely regarding buildings location and orientation according to the needs of passive cooling and heating strategies and the promotion of thermal comfort through the optimization of solar gains. Urban operations should also focus on energy efficiency strategies, namely for natural lighting, and renewable energy adoption, especially for electricity and hot water production. To this end, the Municipality will consider to give incentives for the adoption of RES through adequate rates and taxes

This regulation, as also defined specific criteria for solar thermal obligations:

- Buildings should have a User Manual that characterizes the building energy performance and, among other functionalities, defines the adopted systems to provide sanitary hot water;
- The adoption of centralized solar thermal systems is compulsory in new buildings and should consider South Orientation, architectural integration and the hot water storage tank should be concealed.

Ordinance Facts

Ordinance title	Lisbon framework for urban edification
Type of ordinance	Solar thermal systems
Starting date	1. January 2009
Duration	unlimited
Geographical area	Lisbon
No. of inhabitants	560.000 inhabitants
Scope	new- residential buildings, existing buildings when refurbished
Technology priorities	solar thermal
Size of the solar heating system required	1 sqm per inhabitant according to the national law (Decree-Law 80/2006)
Alternative measures	Alternative technology when technically possible (PV, etc)
Executing authority	Lisbon Municipality
Execution mechanism	The compliance with the law is to be certified by the Lisbon Municipality

Development and Implementation

Background	Following the national solar thermal obligation, the Municipality of Lisbon decided to establish more restrictive criteria regarding the adoption of solar thermal systems in new buildings. The criteria aim at improving the systems energy efficiency and promoting the architectural integration of the equipments.
Objectives	To promote the installation of centralized solar thermal systems, more efficient from the energy production and maintenance point of view. To foster the integration of the solar thermal solutions to the building architecture.
Process	The law was developed at the technical level, responding to the energy efficiency strategy defined by at the political level.
Timing	The preparation phase had an approximate duration of 6 months.
Quality schemes product	no
Quality schemes	no

installation	
Quality schemes other	no
Flanking measures	The law was promoted through press releases and information campaigns
Supervision	-
Sanctioning fees	no
Costs for implementing	-

Monitoring and Results

Monitoring	The Lisbon Municipality is responsible for verifying the compliance with the law and monitoring its impacts.
Quantitative results	Not yet available
Costs borne by the enduser	
Effects on other sectors	not yet available
Communication	not yet available
Future outlook	An evaluation of the law impact is expected to occur during June 2010.

Lessons Learned

Barriers faced and overcome	The technical solutions for centralized systems and the available solutions for architectural integration are not specified what can hinder the Municipality technicians ability to identify intervention opportunities. Two training courses on solar thermal systems were organized, specifically targeting the Lisbon Municipality technicians responsible for receiving and analyzing the projects.
Success factors	<ul style="list-style-type: none"> • Promotion of more energy efficient systems; • Focus on architectural integration, what contributes to enhance solar thermal systems image in the market;
Potential for improvement	not yet available
Recommendations	not yet available

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 Downloads and links related to this STO are available under the STO Database under www.solarordinances.eu

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