



## Improving energy performance of buildings: A success story from Lombardy

**Government:** Lombardy, Italy

**Region:** Europe

**Sector(s):** Energy efficiency

**Date of publication:** July 2019

### Summary

Lombardy, being home to more than 10 million people, is the most populated region in Italy. The average temperature in Lombardy is set to increase by 1.5 degrees in business as usual scenarios between 2012 and 2050 and city statistics show that Milan already endures 35 tropical nights a year. The government of Lombardy thus made energy efficiency in buildings a priority.

Lombardy was the first regional government in Italy to independently transpose Directive 2002/91/EC into its (regional) legislation in 2007, in compliance with the directive and the general principles contained in (Italian) Legislative Decree No. 192. These legislative standards have been modified over the years and following the approval of Directive 2010/31/EU. The Lombardy government has since implemented a program aimed at improving the energy performance of all new buildings in residential and commercial sectors, as well as introducing the standard “nearly zero-energy buildings”.

The program provides:

- Requirements and standards to be applied to all new constructions or renovations, e.g. efficiency for heating systems, wall and roof insulation, inclusion of renewable energy sources.
- A system to calculate the energy demand of buildings and the related energy certification; this certification must be delivered to the Municipality after the construction or renovation works and must be handed over to tenants or buyers at the time of the lease or sale contract.
- The potential to increase the volume of buildings with lower energy consumption than the legal limit.

The main objectives of the policy are to reduce high energy demand from buildings - 42% of total energy consumption in Lombardy comes from buildings – and, consequently, to limit local air pollution, greenhouse gases and energy costs. As a result of the program a tangible transformation is underway, with eco-friendly, sustainable, energy-efficient homes becoming the new, real standard in construction in Lombardy.



## Results

- Mandatory energy certification has been introduced for new and newly renovated buildings resulting in 2,372,500 certified buildings to date.
- Increase in renewable energy sources installed on buildings to cover energy consumption:
  - 116,644 photovoltaic systems for a total power of 2.227 MW
  - 24,150 solar thermal systems
- Home comfort improvement with adjustable temperature in every room and double-glazed windows.
- Two thirds reduction in energy consumption per square meter in new or renovated buildings.

## Next steps

- Update of the calculation system by Lombardy, operated by ILspa, to include new ISO standards
- Roll-out of economic incentives for municipalities, provinces and ALER (Lombardy company for low-income housing) for the energy requalification of public buildings.
- Develop a system of economic incentives and dissemination of knowledge to foster energy production from renewable sources.

## Enabling conditions

- Thanks to a broad stakeholder engagement process, this program has been agreed with professional and builder associations.
- The policy is in line with mandatory EU Directives 2002/91/EC, 2010/31/EC and Italian Legislative Decree No. 192.
- A broad legislative framework was needed to take into consideration the diversity of building conditions in different areas of the region.
- Fiscal benefits at the national level to encourage citizens to renovate their homes to reduce energy demand.
- Simpler, faster and less expensive administrative procedures for renovating existing buildings both at national and regional level.

## Challenges

- To roll-out the plan to renovate and decarbonize all regional public buildings.
- Integration of the program into the broader regional strategy to support an increase in public transportation infrastructure and e-mobility.
- Limiting the horizontal expansion of the cities and favouring the reuse of abandoned buildings.

## Key lessons learned

- Need to simplify access to incentives for energy efficiency through to easier procedures, a constant support and shape messaging with clear benefit for all the actors.
- Strive to reduce decision making process with a more agile public administration, and focus early on implementation of measures once approved by regional council.

### More information

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