

# THE RESIDENTIAL BUILDING SECTOR in

# ITALY



RENONBILL

FACTSHEET

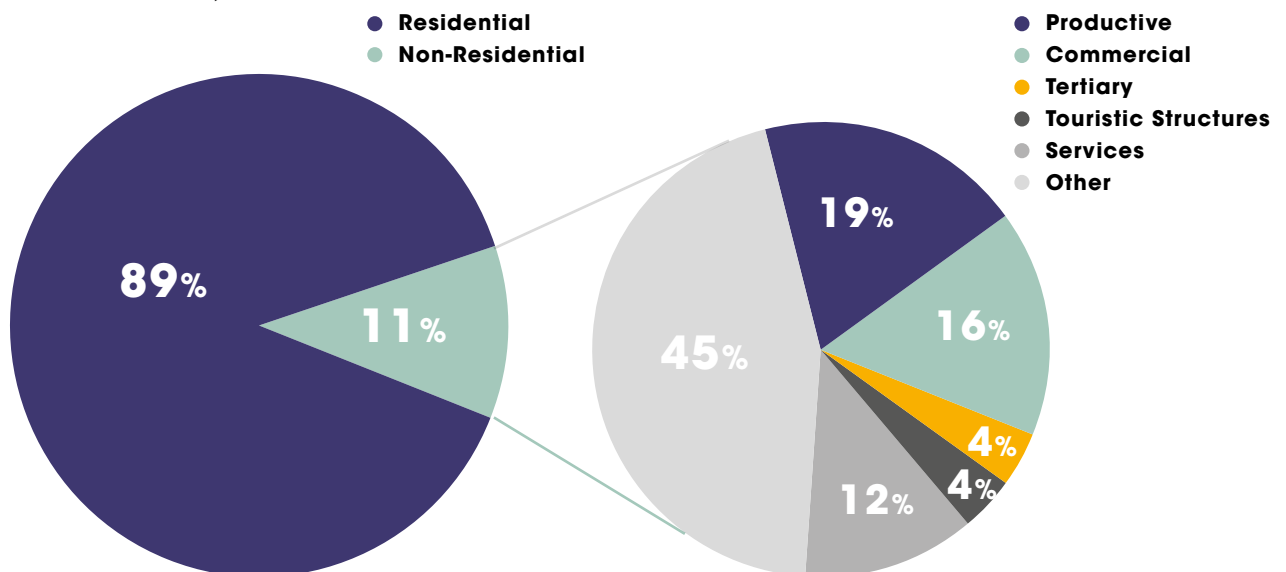


## 1. OVERVIEW OF THE RESIDENTIAL BUILDING SECTOR

Italy is the third largest EU country in terms of population (approximately 60 million people) after Germany and France; and sixth in terms of population density (approximately 200 people/km<sup>2</sup>). Italy has a high urbanisation rate, and the building sector has developed accordingly.

Residential buildings represent 89% of the total Italian building stock. Building distribution varies around the country's territory: approximately 40% of the stock is concentrated in the north. The large majority of residential buildings are multifamily units.

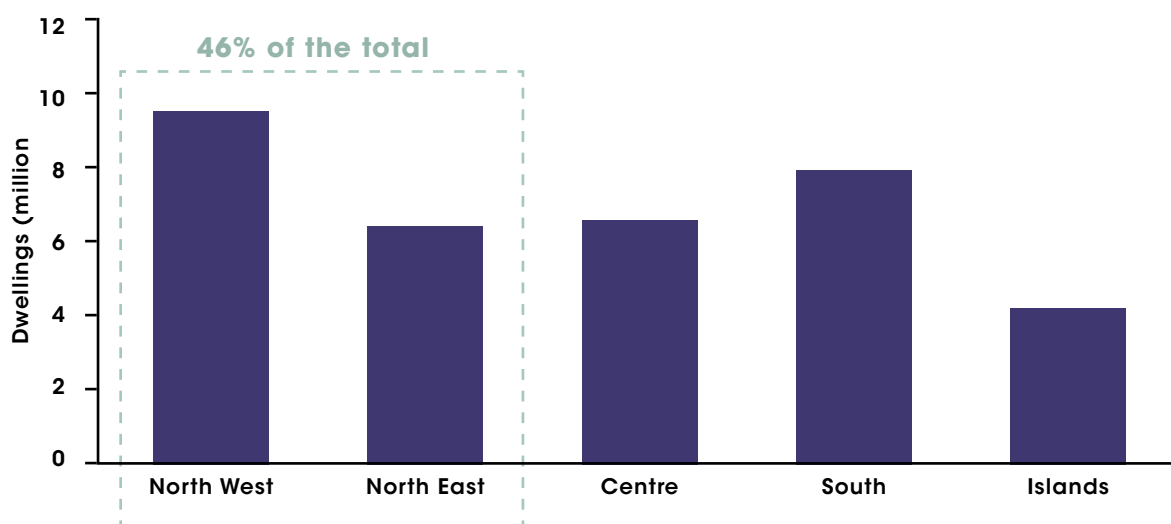
**Figure 1 - Composition of the current building stock** (Italian Institute of Statistics, 2011)



Approximately **70% of the Italian population lives in owned dwellings, although big cities present a much higher share of rented dwellings than the country's average.**

Italy can be divided into five macro-areas which share geographical, climatic, cultural and economic conditions: North West, North East, Centre, South and Islands. The North West and North East of the country contain almost half of the building stock, along with 46% of the population.

**Figure 2 - Distribution of the residential stock in 2017** (Italian Territorial Agency, n.d.)



Analysis of the residential stock, population, climatic conditions and average income distribution highlights that the northern part of Italy is the most attractive macro-area for the development of energy efficiency services in the residential sector. As a result, there is potential for proposing and developing innovative energy efficiency services, from both the technical and financial point of view.

The average annual energy bill per dwelling is €1,200; representing, on average, 4% of family income. It is important to note that these average values may vary in different areas of the country. If geographical differences are considered, the average annual energy bill varies from approximately €1,500 in the northern part of the country to approximately €950 in the Islands.

**The real estate market** makes up around **14% of GDP**. Traditionally, earnings from other activities are invested in real estate, which exposes this sector to the effects of economic cycles.

There are many different kinds of companies involved in energy renovation and two main categories: construction companies, and architecture and engineering firms. The number of construction companies is decreasing by an average of 1.9% per year. This negative performance is due to the economic downturn of recent years, which has been particularly damaging for new construction projects.

The **Italian utility market is quite dynamic, and includes a large number of retailers**. In the years between 2013 and 2017, the number of retailers in the Italian electricity and natural gas sector increased by around 10%. The high level of competition has led to a reduction of the volumes supplied by each company.



## 2. REGULATORY FRAMEWORK

The regulation of the residential building renovation market dates back to the 1970s, with the First Thermal Insulation Ordinance being adopted in 1976. Since then, the regulatory framework has progressively become more comprehensive, including for instance the Renewable Energies Act (2011) and the Energy Saving Decree (2014). However, most Italian buildings were constructed during the 1960s (prior to the first energy efficiency regulation), meaning there is a strong potential market for the implementation of energy efficiency measures.



### **Decreto Legislativo 192/2005, modified by Legislative Decree 311/2006**

Implementation of EU Directive 2002/91/CE focused on energy efficiency in the construction sector. Such Directive was later repealed and replaced by EPBD 2010/31/EU.



### **Decreto Legislativo 112/2008**

Implementation of EU Directive 2006/32/CE on the efficiency of final energy uses and on energy services.



### **Decreto Ministeriale 26/06/2009**

Guidelines for the energy certification of buildings with the definition of the methodology for energy efficiency certification.



### **Decreto Legislativo 28/2011**

Implementation of EU Directive 2009/28/CE on the promotion of renewables.



### **Decreto Presidente della Repubblica 74/2013**

Definition of the general criteria for the operation, control and maintenance of thermal plants for winter and summer air-conditioning and for the generation of sanitary hot water.



### **Legge 90/2013**

Implementation of the Energy Performance of Buildings Directive (EPBD 2010/31/EU), introducing significant changes to the 2005 Decree.



### **Decreto Legislativo 102/2014**

Implementation of EU Directive 2012/27/CE on energy efficiency. The decree highlights a set of measures to support energy efficiency in order to reach the 20-20-20 targets.



### **Decreto Interministeriale 26/06/2015**

Definition of the calculation methodologies for energy performance in buildings and definition of the minimum requirements for buildings.



### **Decreto Legislativo 48/2020, 73/2020**

Legislative decrees that implemented respectively the new EPBD (2018/844/EU) and EED (2018/2002/EU) under the 2018 "Clean energy for all Europeans package".



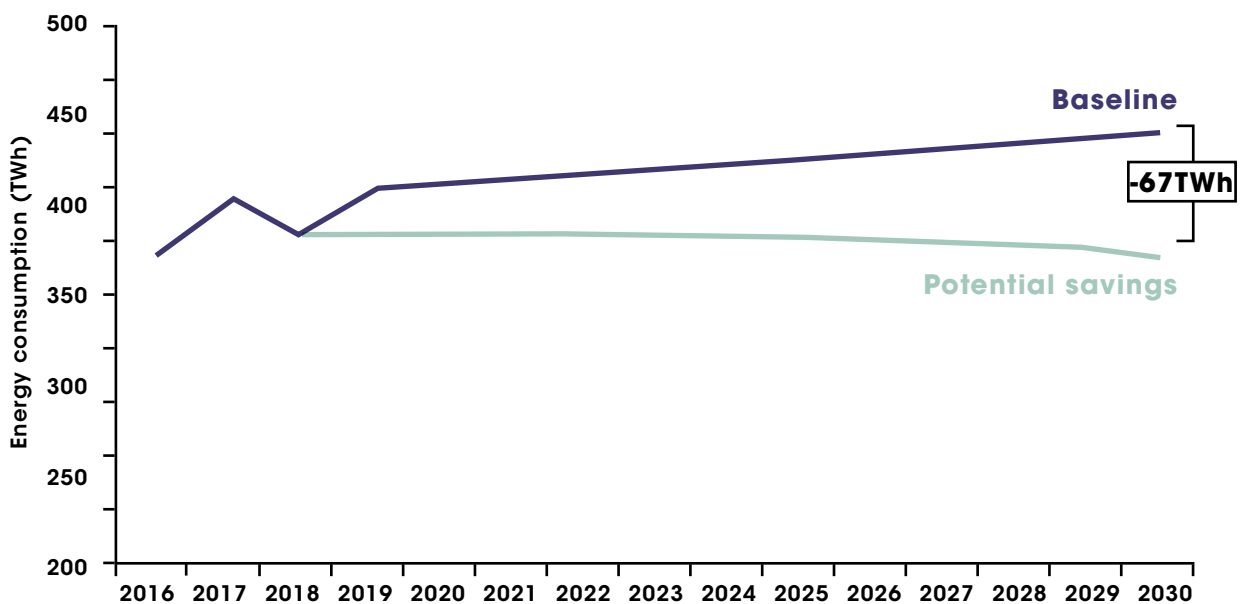
### 3. POTENTIAL IMPACT OF BUILDING ENERGY RENOVATION ON THE MARKET

Italy's long-term political goals include a 43% cuts in greenhouse gas emissions and a 43% improvement in energy efficiency by 2030 with respect to 1990 levels. In this context, the role of the buildings sector is pivotal. A range of measures are currently in place to support the refurbishment of existing buildings to meet EU commitments in terms of energy efficiency and carbon emissions reduction. The most popular are **tax rebates and white certificates**.

In the period 2010-2014, between 100,000 and 200,000 buildings per year were renovated in Italy, with annual investment varying between €3 billion and €5 billion. In all, about 2.6 million interventions were completed, totalling about 300 million m<sup>2</sup> spread across nearly 800,000 buildings.

The estimated baseline for Italy projects an increase in consumption of 66 TWh between 2016 and 2030, growing at an average rate of 1.2% per year. Two main factors are responsible for this increase: the rise of total dwelling space, and a growing economy which fosters consumption.

**Figure 3 - Projection of the baseline and potential savings** (Eurostat, 2020) (World Bank, n.d.)

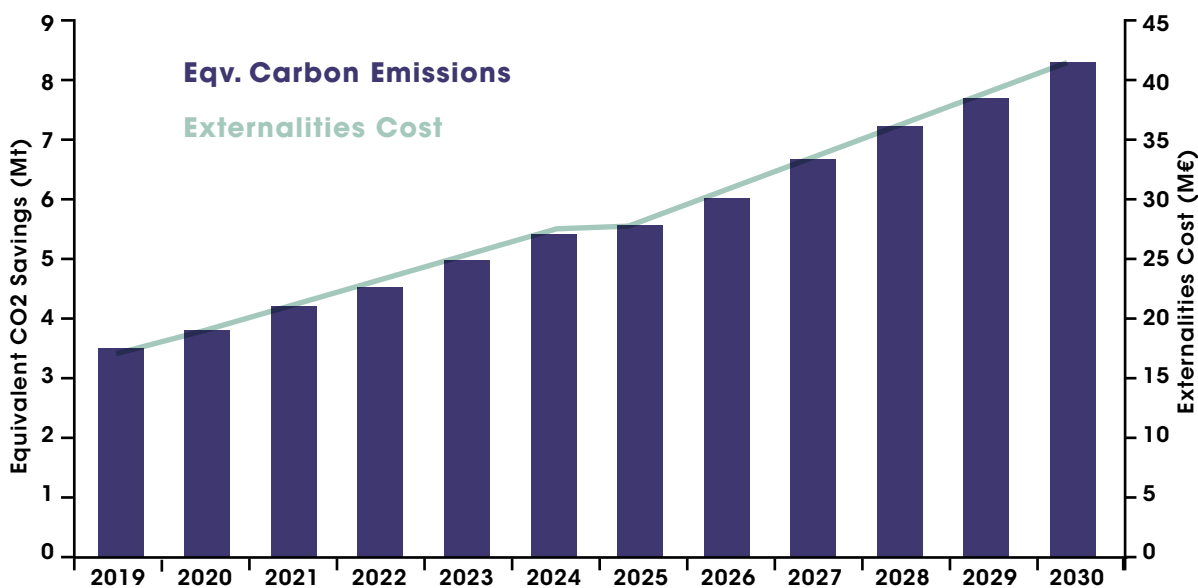


According to the Italian Integrated National Energy and Climate Plan, average savings of 0.8% per year can be achieved through the implementation of policies aiming to support the renovation of residential buildings, starting from 2019. In particular, the following actions will be implemented: tax rebates, white certificates and energy accounting.

The implementation of these measures is expected to generate savings of up to 67 TWh (i.e. 15% in 2030 compared to the baseline scenario). Considering the value of white certificates, which are awarded for each tonne of oil equivalent (toe) of saved energy, the total capital necessary to obtain an energy saving equal to 67 TWh in 2030 was €580 million in 2018. If the investments are calculated to begin in 2019, approximately €50 million per year would be needed for the next 12 years.

If an investment of €50 million per year is made, approximately 1,000 jobs per year will be created. Implementation of energy saving measures would also reduce the sector’s environmental impact – it is possible to estimate the amount of equivalent saved carbon emissions and the corresponding saved externality costs. The estimated annual social value of energy efficiency investments in terms of externalities (e.g. reduction of sanitary expenses for reduced pollution, etc.) would be about €40 million in 2030.

**Figure 4 - Saved carbon emissions and externalities**





## 4. FINANCING THE ENERGY RENOVATION OF BUILDINGS

Governments play a crucial role in promoting energy efficiency and in leveraging more investments in the building sector. The Italian government uses several incentive tools, described below.



Most of the incentives given by the Italian government only cover part of the investment costs. As a result, other sources of financing are also necessary to support energy efficiency investments.

In order to support the post-COVID economic recovery, a plan to increase the tax incentive (Eco Bonus) to 110% of the investment has been introduced.

The white certificates represent mandatory energy saving schemes for all electricity and natural gas distributors with more than 50,000 customers. The certificates are tradable assets which accredit the reduction of final energy consumption resulting from the implementation of energy efficiency measures. These certificates can also be issued to ESCOs or other accredited companies. These entities may obtain an extra advantage by selling white certificates on top of the energy savings.

The most common options for financing the cost of energy efficiency interventions not covered (or only partially covered) by public incentives are private resources and traditional bank loans. However, historically, not many banks offered dedicated instruments for implementing energy efficiency solutions, as the sector was often perceived as a high-risk business. Financial institutions are rarely interested in development of energy efficiency projects, especially when the counterpart is a natural person.

The lack of a structured financial sector presence in the energy renovation market has been mainly due to the fragmentation of the market, which is reflected in a large amount of small investments which are complicated and expensive for banks to manage. In future, cooperation between energy operators (e.g. utilities, ESCOs etc.) and financial institutions will be essential for promoting energy renovation in the Italian residential sector.

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More details are in the full report 



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