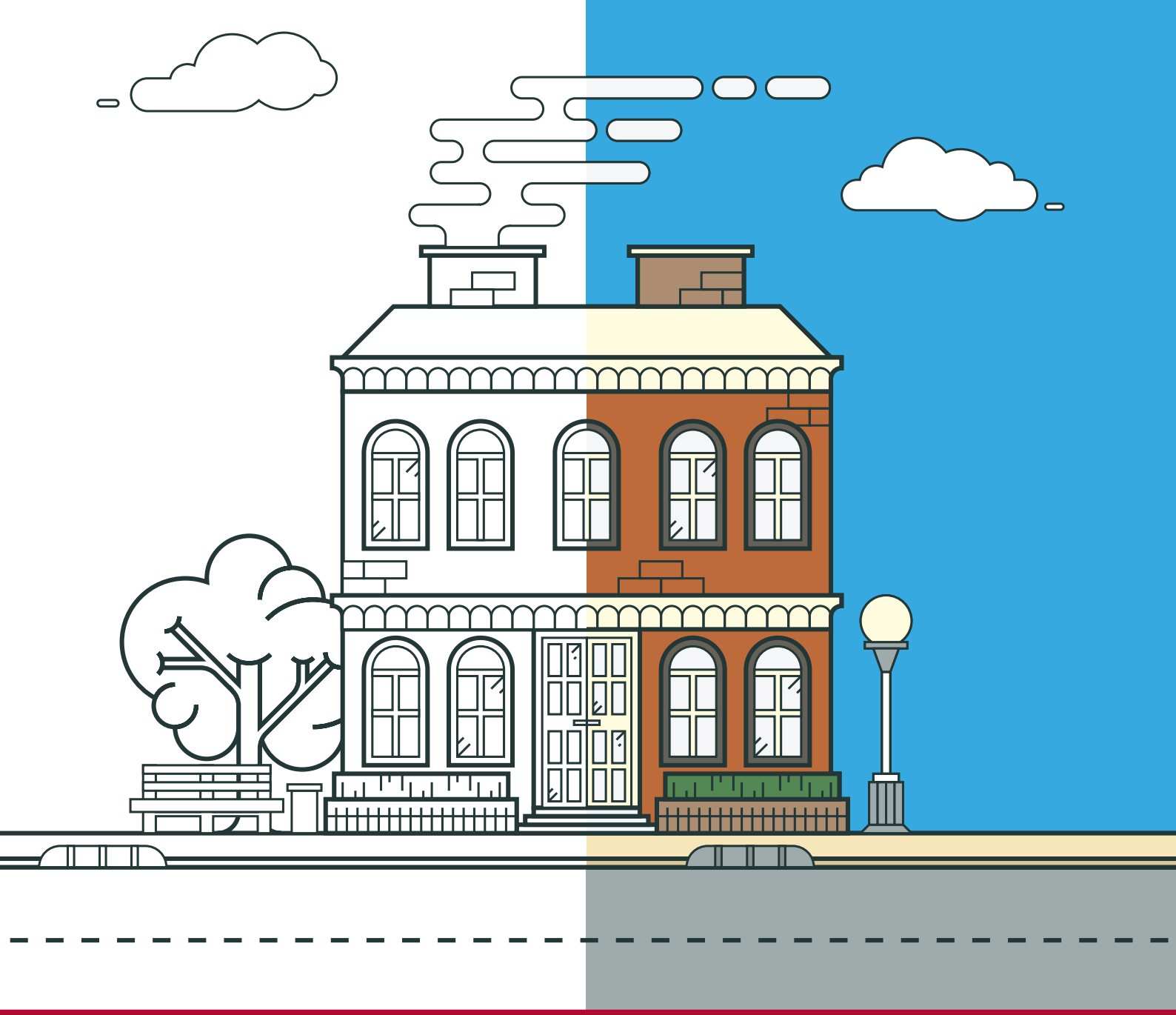

Q1 2021

THE OPPORTUNITIES OF BUILDING RENOVATION

SUPERBONUS 110%
THE INITIAL TANGIBLE EFFECTS

Gabetti
PROPERTY SOLUTIONS

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IMPACT OF TAX INCENTIVES
ECOBONUS/ SUPERBONUS

ECONOMIC SCENARIO

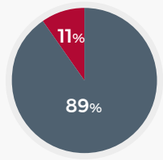
Building renovation works.
138 condominiums with contracted works for 2019-2020; 3,820 units

€ 132.3 mln
Energy retrofitting

€ 6.2 mln
Building refurbishment

€ 138.5 mln
Total cost generated

€ 123.6 mln
Transferable tax credit

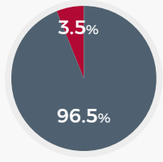


€ 14.9 mln
Residual borne by the condominium

110% SUPERBONUS DETAILS

€ 98.6 mln
Energy retrofitting of the building, of which 4.8 mln in works not linked to energy efficiency

€ 95.1 mln
Transferable tax credit



€ 3.5 mln
Residual borne by the condominium

ENERGY SAVINGS

Estimated for 74 condominiums - 2,302 units

53%
Reduction in demand

3.2
Jump in class

48%
Energy saving

51%
Saving in CO_2 emissions

REDUCTION IN GAS CONSUMPTION

37%
Average reduction in cubic metres of gas per annum

106%
Average seasonal efficiency after retrofitting

43%
Reduction in average annual expenditure for gas

SUMMARY OF THE DECRETO RILANCIO (RELAUNCH DECREE) OF 19 MAY 2020 CONTAINING

"Urgent measures on health, support for employment and for the economy, and social policies related to the COVID-19 epidemiological emergency"

MEASURES ENVISAGED

1) Ecobonus

a) Thermal insulating building covering for a surface area of > 25% of the opaque dispersing surface area (Thermal cladding)

b) Replacement of heat generator with:

- Class A condensing boilers
- Class A heat pump

Implementation of at least one one of the above interventions will offer the possibility to add other works that can be deducted at **110%**, including:

1. Windows and doors: purchase and installation of windows, including frames.
   Maximum expenditure € 60,000.00
2. Photovoltaic systems with or without accumulation.
   Maximum expenditure € 48,000.00
3. Infrastructure for charging electric vehicles in buildings.
   Maximum expenditure € 3.000,00
4. Solar shades.
   Maximum expenditure € 60,000.00
5. Solar energy.
   Maximum expenditure € 60,000.00
6. Building Automation.
   No maximum expenditure limit

The maximum expenditure amounts are subdivided as follows:

Condominium cladding intervention	
Single-family buildings or units situated in multi-family buildings, provided they are functionally independent and have one or more autonomous access points from the outside	**€ 50,000.00**
Buildings consisting of 2 to 8 units (multiplied by units)	**€ 40,000.00**
Buildings consisting of more than 8 units (multiplied by units)	**€ 30,000.00**
Condominium system intervention on common areas	
Buildings consisting of 2 to 8 units (multiplied by units)	**€ 20,000.00**
Buildings consisting of more than 8 units (multiplied by units)	**€ 15,000.00**
Condominium system intervention	
SINGLE-FAMILY buildings or UNITS situated in MULTI-FAMILY buildings, provided they are functionally independent and have one or more autonomous access points from the outside	**€ 30,000.00**

Condominium/units supplementary interventions	
For which the deduction is always 110%	**DIVERSIFIED MAXIMUM EXPENDITURES**

2) Sismabonus

- For interventions designated to specific anti-seismic works on buildings, such as seismic adaptation and/or improvement with the objective of dropping by at least one class of seismic risk in seismic zones 1,2,3.

The maximum expenditure amounts are:	
Condominium or individual unit	€ 96,000.00 per unit

WHO IS ENTITLED

- **Condominium owners** (including those who have second homes).
- **Natural persons,** outside of the exercise of business, trade or profession involving real estate units, for interventions on single-family buildings or units in multiple-family buildings, functionally independent and with one or more access points from the outside. The expenses sustained are for works carried out on a maximum of two units. This limitation does not apply for expenses incurred for works carried out on common areas of the building, as well as for anti-seismic interventions.
- **IACP** (Istituti autonomi case popolari - Autonomous Institutes of Public Housing), however named, as well as entities having the same purpose as the aforementioned Institutes (which do not conduct retail activities) established as companies that meet the requirements of European legislation in regard to "in-house providing".
- **Joint ownership housing cooperatives** for works on properties owned by them.
- **Non-profit organisations** of social utility, volunteer organisations and social promotion associations.
- **Amateur sports associations and clubs** limited to works on buildings or parts of buildings used as changing rooms only.
- "**Renewable energy communities**" limited to renewable energy plants operated by such entities.

PREREQUISITES

- Realisation of at least one of above interventions 1a and 1b, to which interventions 1 - 6 may be added.
- Achievement of two energy classes of the building (pursuant to Legislative Decree 192/2005) or, if not possible, a higher energy class certified through an energy performance certificate on the building (pre and post works).
- Technical certification of:
  - Adequacy of expenditure.
  - Compliance with minimum environmental criteria on insulation systems.
  - Performance requirements for cladding-energy system underlying the increase in energy class.
- Tax conformity certificate issued pursuant to Art. 35 or Art. 32 of Decree 241/97 to the taxpayer entitled to incur the expense.
- That the works are carried out between 1 July 2020 and 31 December 2021.

REPORT SUMMARY

Gabetti's Research Department, together with Gabetti Lab, conducted an analysis of the impact of the tax incentives (Ecobonus, Sismabonus, Superbonus 110%) subject to the credit transfer. The main objective was to quantify the relative savings from an economic standpoint, through the analysis of 138 condominiums that deliberated on energy retrofitting works, focusing in particular on the advantage for condominiums entitled to the 110% Superbonus compared with that of those entitled to the 65% Ecobonus. Secondly, the impact of works carried out with a view to energy savings and reduction in CO2 emissions was estimated, through an analysis of 74 of these condominiums.

INTRODUCTION

The tax measures to support energy efficiency in residential buildings are now a concrete reality in our country. The focus on this type of incentive was confirmed in the 2020 Budget Law through the "Bonus Casa" (Home Bonus) measure, whose main pillars were the **Ecobonus** (65% deduction), **Renovation Bonus** (50% deduction) and **Facades Bonus** (90% deduction, introduced for the first time in 2020). Following the Covid-19 emergency, Article 119 of the "**Relaunch Decree**[1]" extended the tax deduction for **energy upgrading works to 110%** starting from July 2020. It is therefore now possible to intervene even more significantly, thanks to the possibility for those carrying out renovations to immediately transfer 110% of the amount of works on the invoice, without any disbursements or advance payments.

With publication in the Official Gazette[1] of the implementing decrees, which regulate from a technical and procedural standpoint the requirements to access the tax measures, many 110% energy retrofitting works are now underway. Moreover, the 2021 Budget Law confirms extension of the 110% deduction for the next two-year period (2021-2022).

The many reports produced in 2020[2] indicate that the advantages of **energy retrofitting in residential buildings** are not only of a fiscal nature. Indeed, in addition to these, one must also consider other positive impacts stemming from energy retrofitting of a building. Improvement in **living comfort, reduction in gas consumption** with consequent **savings in utility bills, building safety**, aesthetic improvement of facades, revitalisation of construction activity, reduction of CO^2 emissions, and increase in the **building's market value** are all positive aspects to be considered. Launching a large-scale process of renovating buildings that do not meet housing standards in terms of energy efficiency could lead to a significant **reduction in CO^2** emissions and mitigate the effects of climate change to which our cities and territories are exposed. **Gabetti Lab** has estimated that of the approximately **11 million buildings** in Italy classified in **energy classes F and G**, and assuming an average jump of **3.2 energy classes, the potential reduction in CO^2 emissions** is approximately **51%**, i.e. **80 million tons/year**. These data were calculated on the basis of the pre- and post-works energy performance of a sample of 74 buildings in the Gabetti Lab project database, normalised according to the average energy requirements of the starting classes (G and F) and the final class (on average 3.2 classes higher). This allowed us to estimate the possible CO^2 reduction (kg/m^2 per year) of an average single condominium to be approximately 16.92 kg CO^2/m^2 per year. This reduction, commensurate with the Italian residential buildings in classes G and F (which according to Istat are about 11 million) and the average square metres per building (426 sqm[3]), generates a decline of 80 million tons of CO^2/year".

Already for the period 2008-2012, Italy's gap from the objective of reducing CO^2 emissions as per the Kyoto Protocol was estimated at 97.32 million tons of CO^2/year, a quantity similar to the reduction in emissions that today would allow energy retrofitting of the 11 million buildings in classes F and G. Moreover, a study drawn up by the Energy & Strategy Group of the Milan Polytechnic has estimated that in order to reach the European objective of reducing climate-altering emissions

1 Official Gazette of 6 October 2020
2 http://www.gabettigroup.com/it-it/ufficio-studi/dettaglio-tutti-i-report/artmid/1106/articleid/1038/le-opportunit192-del-rinnovo-edilizio
3 Istat (2015)

by 55% within 2030, it would be necessary to cut 94 million tons of CO_2[4]. This demonstrates that, beyond the economic benefits, energy retrofitting of buildings will provide a strong boost to Italy's energy transition.

The PNRR (*Piano Nazionale Ripresa e Resilienza* - National Recovery and Resilience Plan), through which the Italian Government must implement the Next Generation EU programme, also recognises the importance of energy retrofitting of buildings. In achieving the "Green Revolution and Ecological Transition" objective, energy retrofitting is identified as the fundamental pillar through which to relaunch the construction industry. This would stimulate the country's economic sector and accelerate the process of reducing emissions in order to meet European targets by 2030.

From fiscal lever, incentives to support energy efficiency in buildings may also act as a political lever if the **collective benefits** associated with them are also recognised. This is because, while it is true that tax incentives directly affect homeowners and consequently private housing stock, the effects produced are also reflected in the well-being of the community and of the surrounding area. Like other urban policies, this allows us to take a fresh look at our cities. Indeed, in the context of sustainable policies, the right to **more liveable homes** (which means greater living comfort and better aesthetic quality) is as important an objective as **regenerated neighbourhoods**, more sustainable transport patterns and improved social and environmental infrastructure of our cities.

GABETTI LAB NUMBERS

Gabetti Lab (leading company in the promotion of sustainable living, as well as in the refurbishment of Italian properties through tax advantages for energy efficiency) is working on **84** projects for the renovation of condominiums already approved in 2020 under the Superbonus, for a total value of **€ 97.2 million**. A further increase of approximately 150 projects is envisaged for 2021. During the three-year period 2019-2020-2021, Gabetti Lab will reach a total of **€ 500 million** in contract acquisitions, numbers that make the company national leader in the redevelopment of condominiums with credit assignment, through the only integrated supply chain in Italy, a distinctive feature of Gabetti Lab.

4 https://www.ansa.it/canale_ambiente/notizie/clima/2020/11/03/politecnico-milano-italia-deve-tagliare-94-milioni-t-di-co2_8db3-76b-00b4da96c.html da8ac811-cf24-43ee-

MEASURES AND OPPORTUNITIES PROVIDED BY THE 110% BONUS

The “Relaunch Decree” of 19 May 2020*, as part of the urgent measures on health, support for employment and for the economy, and social policies related to the COVID-19 epidemiological emergency, opens up important development opportunities for the real estate sector. Among these, of particular importance is undoubtedly the increase in tax deductions to 110% for specific interventions in the areas of energy efficiency, anti-seismic works, installation of photovoltaic systems and infrastructures to recharge electric vehicles in buildings.

The Decree establishes that “the deduction [...] is applied in the amount of 110%, for costs documented and borne by the taxpayer from 1 July 2020 to 31 December 2021”. The Superbonus has two main pillars (primary interventions): the Ecobonus and the Sismabonus, both of which benefit from a 110% rate under certain conditions and for specific buildings.

In addition to these, legislation has provided for the combination of other measures (secondary interventions) that can benefit from the 110% rate, such as the installation of photovoltaic panels or electric vehicle recharging stations in buildings, if carried out in conjunction with at least one of the Ecobonus or Sismabonus measures, for which the former are preparatory to the latter.

With regard to the Ecobonus, two primary interventions benefit from the 110% rate:

1) Thermal cladding - Interventions involving thermal insulation of opaque vertical, horizontal and inclined surfaces on the cladding of buildings, including single-family ones, with an impact of over 25% of the gross dispersion surface of the building itself or of the unit located within multi-family buildings that is functionally independent and has one or more autonomous access points from the outside.

2) Heat generators - Replacement of existing winter air-conditioning systems with centralised systems for heating and/or cooling and/or supply of hot water, with condensation, with efficiency at least equal to product class A, with heat pumps, including hybrid or geothermal systems, also combined with the installation of photovoltaic systems, relative storage systems, with micro-cogeneration systems or solar collectors:

a. on common parts of the buildings, or with heating systems and/or cooling systems and/or the supply of hot water;

b. in single-family buildings or units situated in multi-family buildings that are functionally independent and have one or more autonomous access points from the outside.

ECOBONUS at 110%

A) Thermal insulating building covering for a surface area of > 25% of the dispersing surface area (Thermal cladding)

B) Replacement of heat generator with:

- Class A condensing boilers
- Class A heat pump

** Containing “Urgent measures on health, support for employment and for the economy, and social policies related to the COVID-19 epidemiological emergency”*

It is important to highlight that, to qualify for the deduction, the works must ensure improvement of the building by at least two energy classes or, if not possible, achievement of the higher energy class, supported through an energy performance certificate (A.P.E.).

INTERVENTIONS IN THE AREA OF: ENERGY EFFICIENCY, PHOTOVOLTAIC SYSTEMS AND INTEGRATED ACCUMULATORS, INSTALLATION OF INFRASTRUCTURES TO CHARGE ELECTRIC VEHICLES IN BUILDINGS

The decree provides for the possibility that the 110% rate also be applied to all other energy efficiency measures (including windows and doors, solar shades, solar energy and building automation), provided that they are carried out in conjunction with at least one of the two Ecobonus measures (1 and 2 of the previous paragraph).

Among these, the installation of solar photovoltaic systems connected to the electrical grid on buildings is also eligible for a rate of 110%, up to a total amount of expenses not exceeding € 48,000 and in any case within the limit of € 2,400 per kW of nominal power of the photovoltaic solar system, to be divided among those entitled in five equal annual instalments, provided that the installation of the systems is carried out in conjunction with one of the two Ecobonus interventions. The 110% deduction also extends to the simultaneous or subsequent installation of storage systems integrated into solar photovoltaic systems.

The decree also introduces the installation of infrastructures to recharge electric vehicles in buildings, for which the deduction is 110%, to be divided among those entitled in five equal annual instalments, provided that the installation is carried out in conjunction with one of the two macro interventions of the Ecobonus.

OTHER INTERVENTIONS WITH 110% DEDUCTION

if envisaged within the scope of the three Ecobonus interventions:

1. Windows and doors: purchase and installation of windows, including frames
2. Infrastructure for charging electric vehicles in buildings
3. Photovoltaic systems with or without accumulation
4. Solar energy
5. Solar shades
6. Building Automation

For building renovation and energy efficiency works that are carried out separately from the three interventions envisaged by the 110% Ecobonus (namely, thermal cladding and windows/doors, and replacement of heat generators with condensing boilers and heat pump), the traditional deduction remains (including: 65% for the Ecobonus, 90% for the facades, 50% traditional refurbishment).

REDUCTION OF SEISMIC RISK

The second important pillar of the Superbonus is the **Sismabonus**, which increases the deduction rate to 110% for expenses incurred from 1 July 2020 to 31 December 2021 for anti-seismic works on buildings. The deduction can be applied provided that an insurance policy covering the risk of calamity is taken out at the same time.

SISMABONUS at 110%

For interventions involving safety/anti-seismic works on buildings, such as seismic adaptation and/or improvement with the objective of dropping by at least one class of seismic risk in seismic zones 1,2,3.

I massimali di spesa sono:	
condominium or individual unit	€ 96,000.00 per unit

SCOPE OF APPLICATION OF THE NEW REGULATIONS WITH REGARD TO THE RECIPIENTSI

All the provisions apply to "**condominiums**" for interventions of "thermal insulation of opaque vertical, horizontal and inclined surfaces affecting the cladding of the building, as well as interventions carried out on the common parts of the buildings to replace existing winter air-conditioning systems with centralised systems".

Among the recipients, the legislation has also introduced "**natural persons**, outside of the exercise of business, trade or profession", for interventions on multiple-family buildings, functionally independent and with one or more access points from the outside. The expenses sustained are for works carried out on a maximum of two units. This limitation does not apply for expenses incurred for works carried out on common areas of the building, as well as for anti-seismic interventions. The tax benefits of the Superbonus are also available to the **IACP** (*Istituti autonomi case popolari* - Autonomous Institutes of Public Housing) however named, as well as entities having the same purpose, and to joint **ownership housing cooperatives** for works on properties owned by them and assigned to their members, to **non-profit organisations** of social utility, and **amateur sports associations** and **clubs**, "limited to works on buildings or parts of buildings used as changing rooms only".

Lastly, the Superbonus is also aimed at "**renewable energy communities**" limited to renewable energy plants operated by such entities.

RECIPIENTS

- **Condominiums**
- **Natural persons**, outside of the exercise of business, trade or profession, involving single-family buildings or units of condominiums with autonomous access
- **IACP** (Istituti autonomi case popolari - Autonomous Institutes of Public Housing) however named, as well as entities having the same purpose as the aforementioned Institutes (which do not conduct retail activities in the subject areas) established as companies that meet the requirements of European legislation in regard to "in-house providing".
- **Renewable energy communities**
- **Joint ownership housing cooperatives** for works on properties owned by them
- **Non-profit organisations** of social utility, volunteer organisations and social promotion associations
- **Amateur sports associations and clubs limited** to works on buildings or parts of buildings used as changing rooms only

Gabetti Research Department analysis of Gabetti Lab data

TRANSFORMATION OF THE TAX DEDUCTIONS INTO A DISCOUNT ON THE CONSIDERATION DUE AND A TRANSFERABLE TAX CREDIT

To support recovery of the economy, **Article 121** of the decree provides, on an experimental basis, that entities which in 2020 and 2021 incur expenses for the interventions listed (Restoration of buildings, Energy efficiency, Adoption of anti-seismic measures, Recovery or restoration of the facade of existing buildings, Installation of solar photovoltaic systems, installation of electric vehicle charging stations) may alternatively opt for:

a) a contribution of the same amount, in the form of a **discount on the consideration due**, advan ced by the supplier that carried out the work and recovered by the latter in the form of a tax cre dit, with the possibility of subsequent assignment of the credit to other entities, including banks and other financial intermediaries;

b) conversion of the corresponding **amount into a tax credit**, with the possibility of subsequent assignment to other entities, including banks and other financial intermediaries.

In addition, transformation of the corresponding amount of the deduction into a tax credit, with the possibility of subsequent transfers to other entities, is applied, upon option to be exercised in 2020, also in relation to the remaining instalments of deductions relating to interventions carried out in previous years.

KEY CHANGES COMPARED TO THE ORIGINAL TEXT OF MAY 2020

The changes introduced by Circular No. 30/E of Agenzia delle Entrate (the Italian Revenue Agency), which clarify and update the Relaunch Decree of 19 May, do not appear to be of a highly significant nature. Rather, they clarify the doubts and uncertainties that legitimately arose in the weeks and months following publication of the Relaunch Decree. In particular, referring further details to the subject Circular of Agenzia delle Entrate, the update note introduced with the August amendments:

- clarifies the notion of "**autonomous access from the outside**", specifying that "it means an independent access, not common to other building units, closed by a gate or entrance door allowing access from the street or from a courtyard or garden, even if not exclusively owned"
- discusses **condominium meetings**, stating that resolutions "concerning approval of the interventions referred to in this article and any financing of the same, as well as acceptance of the option for assignment or discount referred to in Article 121, are valid if approved by a number of votes representing the **majority of those present and at least one third of the value of the building**".

Other changes regard the Sismabonus, for which the Decree:

- establishes that "In municipalities of the territories affected by seismic events, the incentive [envisaged for energy retrofitting works qualifying for the Superbonus] is available for the **amount exceeding the contribution provided for the reconstruction**".
- provides that the "**limits of expenses** eligible for the Ecobonus and Sismabonus tax incentives referred to in the previous paragraphs, incurred by 31 December 2020, are increased by 50 per cent for reconstruction work on buildings damaged by earthquake in the municipalities. In this case, the incentives are an alternative to the contribution for reconstruction and are available for all the expenses necessary for restoration of the damaged buildings, including homes other than the principal residence, excluding buildings used for productive activities".

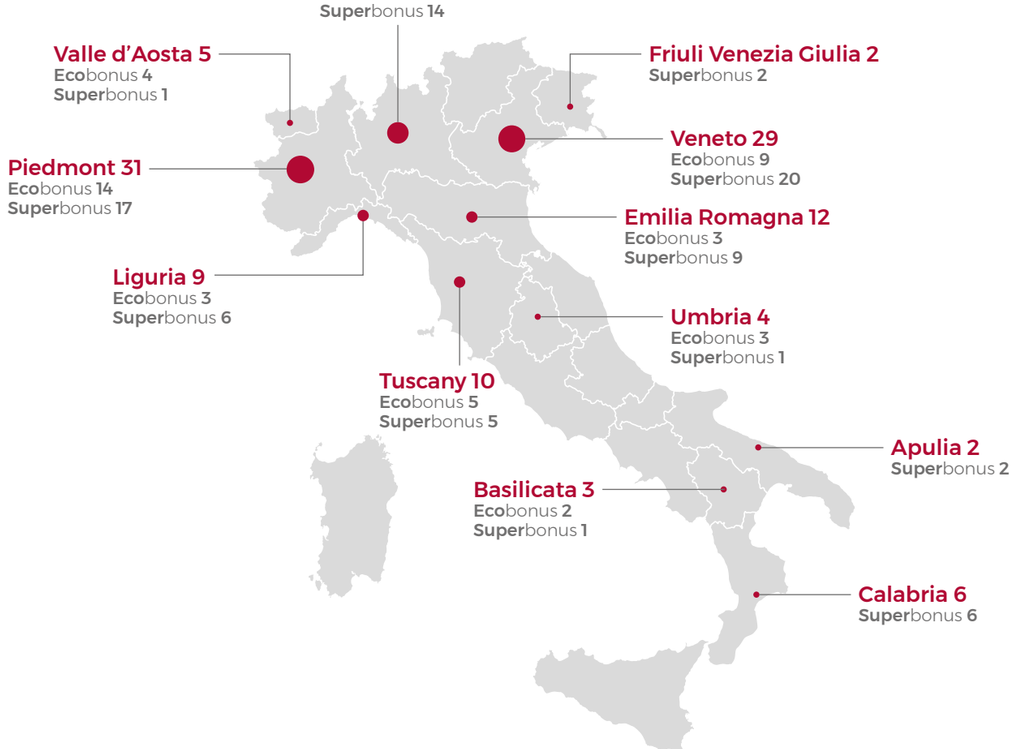
ECOBONUS AND SUPERBONUS: ADVANTAGES OF THE TAX MEASURES AND ENVIRONMENTAL SUSTAINABILITY

Gabetti's Research Department, together with Gabetti Lab, conducted research on the economic and energy impact of the tax incentives (Ecobonus, Sismabonus, Superbonus 110%) subject to the credit transfer.

The sample comprised 138 condominiums for a total of 3,820 units which resolved to carry out energy efficiency measures using the tax breaks of the Ecobonus. In particular, 21 condominiums already completed the works in 2020, 15 have works underway, and the remainder have works deliberated and/or stipulated in a contract and planned for 2021.

With regard to the tax advantages, 85 condominiums for a total of 2,617 units will take advantage of the tax benefit of the 110% Superbonus, while the remainder (53) will use the 65% Ecobonus.

LOCATION OF ANALYSIS SAMPLE



The **objective** of the research was to demonstrate the **cost-effectiveness** of tax incentives on the one hand, with particular reference to the 110% Superbonus, as part of complex redevelopment projects in condominiums. On the other hand, it also considered the impact on **environmental sustainability**, with regard to the reduction of energy consumption, energy savings and decline in CO^2 emissions.

This was done by estimating and comparing in numerical terms the amount of CO^2 abatement, the reduction in energy demand, the energy savings and the cost of the transferred investment for **74 condominiums**, for a total of **2,302** building units.

The estimates were made thanks to the pre- and post-intervention data collected, as well as to the in-field experience of **Gabetti Lab**, which for over two years has been working in partnership with **General Contractors** and with the main production, laying and installation companies to develop Ecobonus/Sismabonus projects, with credit assignment, aimed **at improving the environmental impact, seismic safety and technological modernisation of condominiums**.

ECONOMIC IMPACT ANALYSIS

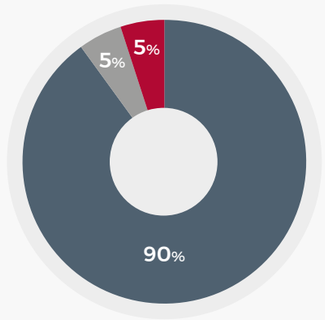
With regard to the **economic scenario**, the analysis considered the entire sample of **138** condominiums, for a total of **3,820** units, from which it was possible to estimate the economic savings generated through recourse to the Ecobonus (at both 65% and 110%), the turnover generated, the tax credit, how much is borne by the condominiums, how much is spent on interventions involving upgrading of the central heating system, and how much on interventions on the cladding.

The total amount of works resolved is **€ 138,487,563** of which a residual portion of 5% regards works unrelated to energy efficiency.

In terms of energy retrofitting works, nearly the entire total of **€ 125,095,424** regards works on thermal insulation of opaque vertical, horizontal and inclined surfaces (**thermal cladding**) affecting the covering of the buildings, while approximately 5% (equal to € 7,153,657) regards works to replace winter air conditioning systems (**heat generators**).

DISTRIBUTION OF AMOUNT OF WORKS

€ 138.5 mln
Total works amount



- Total energy retrofitting amounts for cladding
- Total heating plant retrofitting
- Total works not linked to energy efficiency

On the payment method front, adding the works envisaged for all 138 condominiums, a transfer of the tax credit of € 123,559,652 is envisaged, and a residual amount borne by the condominium of € 14,927,911. In percentage terms, this means that a total of 89% of the works is assigned, and a residual amount of 11% is borne by the condominiums.

	TOTAL SAMPLE		ECOBONUS		SUPERBONUS	
NO. UNITS	3,820		1,203		2,617	
NO. CONDOMINIUMS	138		53		85	
TAX CREDIT CLIENT ENERGY RETROFITTING OF CLADDING	**€ 114,978,818**	**92%**	**€ 27,309,582**	**74%**	**€ 87,669,237**	**99%**
RESIDUAL BORNE BY CONDOMINIUM ENERGY RETROFITTING OF CLADDING	€ 10,116,605	8%	€ 9,355,771	26%	€ 760,834	1%
TOTAL ENERGY RETROFITTING AMOUNTS OF THE CLADDING	€ 125,095,424	100%	€ 36,665,353	100%	€ 88,430,071	100%
TAX CREDIT CLIENT RETROFITTING HEATING PLANT	**€ 6,439,750**	**90%**	**€ 1,076,643**	**61%**	**€ 5,363,107**	**99%**
RESIDUAL BORNE BY CONDOMINIUM HEATING PLANT RETROFITTING	€ 713,907	10%	€ 685,449	39%	€ 28,458	1%
TOTAL HEATING PLANT RETROFITTING	€ 7,153,657	100%	€ 1,762,092	100%	€ 5,391,565	100%
TAX CREDIT CLIENT WORKS NOT LINKED TO ENERGY EFFICIENCY	**€ 2,141,084**	**34%**	**€ 5,472**	**0%**	**€ 2,135,613**	**45%**
RESIDUAL BORNE BY CONDOMINIUM WORKS NOT LINKED TO ENERGY EFFICIENCY	€ 4,097,399	66%	€ 1,464,125	100%	€ 2,633,273	55%
TOTAL WORKS NOT LINKED TO ENERGY EFFICIENCY	€ 6,238,483	100%	€ 1,469,597	100%	€ 4,768,886	100%
CLIENT TAX CREDIT ASSIGNED	**€ 123,559,652**	**89%**	**€ 28,391,696**	**71%**	**€ 95,167,956**	**96,5%**
TOT RESIDUAL BORNE BY CONDOMINIUM	€ 14,927,911	11%	€ 3,433,565	23%	€ 3,433,565	3,5%
TOT AMOUNT WORKS	**€ 138,487,563**	**100%**	**€ 39,897,041**	**100%**	**€ 98,590,522**	**100%**

** With regard to the Superbonus, despite an indicative reimbursement rate envisaged of 110% of the works carried out, the condominiums are not always able to obtain a full deduction of the costs sustained. On average in the cases analysed, 45% of them obtain between 96 and 99% of the deductible amount.*

This is because projects may be of a complex nature and, together with the "primary" and "secondary" interventions, may involve works entitled to lower rates, such as building renovation, which continues to benefit from a rate of 50%, and renovation of the facades, which is at 90%.

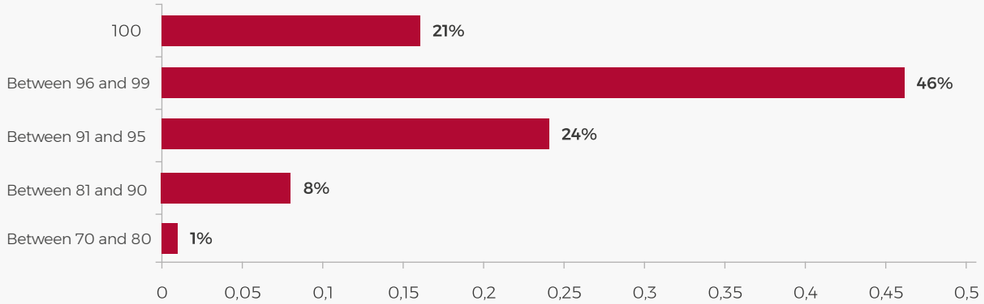
Moreover, the maximum limits envisaged for each intervention can sometimes be exceeded, therefore resulting in a residual amount borne by the condominium.

Analysing the sample, of the 138 condominiums:

- **53** condominiums (1,203 units) benefited from the **65% Ecobonus** for total works generated of **€ 39,897,041** Of these, the tax credit assigned is equal to **€ 28,391,696** (71%) for a total borne by the condominium of **€ 11,505,346** (29%).
- **85** of them (2,617 units) benefited from the **110% Superbonus** for a total amount of works of € **98,590,522** of which **€ 95,167,956** (97%) is the transferable amount, while **€ 3,422,565** (3%) is the residual amount borne by the condominiums.

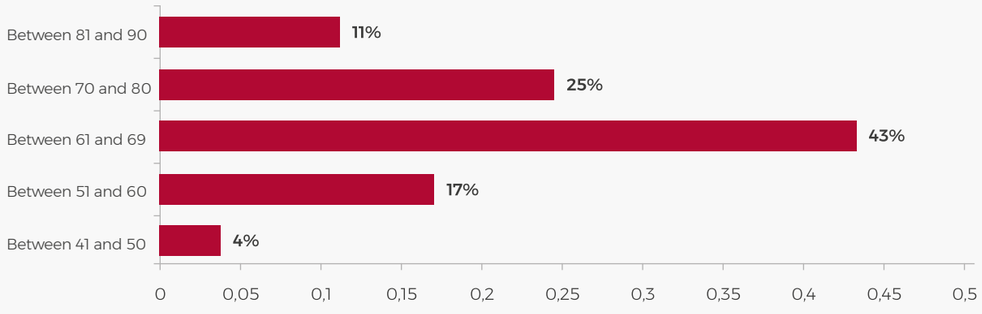
Analysis of the cases where the 110% Superbonus was used shows that **21%** benefited from a tax credit of 100%. This means that the residual amount to be paid is zero. This is followed by **46% of the sample**, whose projects generated **a tax credit of between 9%** and **99%**, and **24%**, which benefited from a rate of between 91 and 95%.

Range % tax credit rates for interventions with the 110% Superbonus



Of the condominiums that carried out works with the Ecobonus (rate at 65%), plus the cases of Facades Bonus (90%) and Sismabonus (70-80%), some 43% benefits from a deduction of between 61 and 69%. These are followed by those entitled to a tax credit of between 70 and 80%, accounting for about 25% of cases.

Range % tax credit rates for interventions with the 65% Ecobonus



The comparison clearly **shows the tax advantage of the Superbonus over the Ecobonus**. This is despite the complexity of the works, which may involve a portion of building renovation or in some cases exceed the maximum limits envisaged for application of the 110%.

QUANTIFICATION OF AVERAGE ENERGY SAVINGS PER RESIDENTIAL UNIT AND REDUCTION OF CO_2

Of the 138 condominiums, **74** (for a total of **2,302 units**) were analysed to extract statistics relative to the energy aspects and reduction of CO_2.

In this case, the following were estimated:

- average energy savings and average reduction of CO_2 emissions per unit;
- the average percent reductions in thermal transmittance for the various components of the building covering (walls, roofs, floors, windows/doors);
- the reduction in gas consumption.

The reduction in average estimated energy demand for the condominiums analysed, with a total of **213,531 sqm of thermal insulation**, is **53%**, while the average estimated **percent energy savings** is **48%**. Also confirming these positive values is the **jump in average energy class**, estimated at around **3.2**.

Another positive aspect identified by the analysis is the reduction in gas consumption. Starting from the estimate of total gas consumption of the condominiums prior to the works, the **estimated reduction in post-intervention cubic metres of gas consumption is 37%.**

The savings in terms of less gas used to heat the home and to produce hot water also leads to a reduction **in annual gas consumption costs** which, for the 74 buildings in the sample, is estimated at **43%**. Also improving is the average seasonal efficiency of the ratio of heat supplied by the boiler to energy consumed. Analysis of the data shows that, while this ratio is **82%** prior to the works, the energy renovation interventions bring it to **106%**. Reductions that have a significant impact both in terms of savings on energy bills and condominium costs, as well as in terms of increasing the market value of the property.

Lastly, a third figure that was obtained is the **savings in CO_2 emissions**, which for the 74 condominiums analysed is estimated at around **51%**..

Average energy savings following energy renovation interventions

AVERAGE REDUCTION GAS CUBIC METRES PER ANNUM	AVERAGE SEASONAL EFFICIENCY AFTER RETROFITTING	REDUCTION IN AVERAGE ANNUAL EXPENDITURE FOR GAS	REDUCTION IN AVERAGE DEMAND	% AVERAGE ENERGY SAVINGS	% SAVINGS OF CO_2 EMISSIONS	AVERAGE CLASS INCREASE
37%	106%	43%	53%	48%	51%	3.2

PERCENT REDUCTION IN THERMAL TRANSMITTANCE

Another indicator that the research provides is the percentage of transmittance reduction, namely to what extent the building cladding's capacity to insulate the indoor environment from the outside environment and contain heat loss has improved after the energy efficiency measures.

Analysis of the data on estimated transmittance before and after the works enabled calculation of the percent reduction of the various elements comprising the building covering (walls, roofs, floors, windows/doors). In particular, the resulting percent reduction in thermal transmittance is as follows:

- opaque vertical structures (**floors**): **83%**
- opaque horizontal or inclined structures (**roofs**): **84%**
- opaque horizontal or inclined structures (**floors**): **85%**
- opening and similar closures (**windows/doors**): **75%**

Percent reduction in thermal transmittance

OPAQUE VERTICAL STRUCTURES	OPAQUE HORIZONTAL OR INCLINED STRUCTURES (ROOFS)	OPAQUE HORIZONTAL OR INCLINED STRUCTURES (FLOORS)	OPENINGS AND SIMILAR CLOSURES
83%	84%	85%	75%

CASE STUDY 1 - SUMMARY

BUILDING DESCRIPTION

Municipality: **VIMERCATE**

Region: **LOMBARDY**

Year of intervention: **2021**

Duration of intervention: **12-18 MONTHS**

Climatic region: **E**

Number of residential units: **173**

INTERVENTION DESCRIPTION

- Combined eco-seismic intervention on vertical and horizontal structures on the roof
- Renovation of the building's heating plant

ENERGY SAVINGS

44% Energy savings

3 Jump in class

START **G** Starting energy class

FINISH **D** Final energy class

DEMAND

227.38 KWh/sqm_2 per year
Starting average energy requirement

118.24 KWh/sqm_2 per year
Final average energy requirement

48 % Reduction in requirement

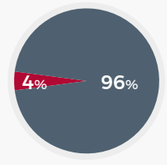
46% SAVINGS IN CO_2 EMISSIONS

FINANCIAL SCENARIO

€ 6.7 mln
Cost of the intervention

€ 6.44 mln
Transferable tax credit

€ 288.5 thousand
Residual borne by the condominium



CASE STUDY 1

Impact of energy efficiency on the market value of the refurbished building

Relaunch Decree - INTERVENTIONS IN THE AREA OF ENERGY EFFICIENCY "SUPERBONUS" CONDOMINIUM SITUATED IN VIMERCATE

INTRODUCTION

The following case study allows us to estimate the potential increase in the market value of a building that carries out energy efficiency works. The condominium in question, which consists of 6 buildings for a total of **173 units**, carried out energy efficiency works, benefiting from the Superbonus tax incentive. In economic terms, in addition to the tax benefit, which allowed the condominiums to reduce their energy retrofitting costs by around 95%, the market value of the buildings increased by 3-5%, for each energy class, compared to the value prior to the works

LOCATION

The condominium is located in the semi-central area of the municipality of Vimercate (MB), in a predominantly residential context, with a smaller percentage of commercial and tertiary properties, and is located near the main services: schools, roads and public transport.

The area is characterised by condominiums of seven/eight floors and buildings of three/four storeys above ground; therefore, the subject property blends perfectly into the urban context.

The city centre is about 800 m away and is easily accessible via public transport, with a bus stop at about 90 m from the building, or through private means. There is good availability of parking, with public parking spaces along the street and in the vicinity of the property.

The main roadway is the A51 Motorway (Tangenziale Est di Milano - Eastern ring-road), followed by the SP3 (provincial road); there is no railway station within the municipality, but reference is made to the "Arcore" station, which is about 5 km away. The nearest airport is "Milan/Linate" which is about 24 km away, while intercontinental connections are provided through the Milan/Malpensa airport, about 70 km away.

CONDOMINIUM DESCRIPTION

The condominium consists of 6 independent multi-storey residential buildings, of which 3 are towers, towards the inside of the block, and 3 aligned, facing the main access roads, arranged around the perimeter of the property to create an open inner courtyard characterised by a large planted green area and connecting paths, sharing the vehicular and pedestrian access and the basement garage area.

The buildings were constructed around the 1960s and include: a reinforced concrete beam and pillar structure and masonry infill with concrete and masonry floor slabs, sloping pitched roof with a sheet metal covering, plastered facades partially covered with clinker tiles on the ground floor, including a central gas-fired heating plant and radiant ceiling panel distribution.

The condominium consists of a total of **173 units**, of which **155** are **residential flats**, **7 are for tertiary use (studios/offices) and 11 are commercial units used as retail shops**.

TYPICAL APARTMENT

The typical apartment is a three-room flat of 60-70 sqm, consisting of: entrance/vestibule, living room, kitchen, bedroom, bathroom and balcony overlooking the street or internally on the condominium park area, plus a cellar on the first basement level. Access to the unit is via the stairwell and lift shaft on the floor.

The basic finishes consist of: ceramic floors, plastered and partially tiled walls in the kitchen and bathroom, interior fixtures in wood and frosted glass, exterior fixtures in wood and single glazing, PVC shutters.

Central heating is provided by radiant ceiling panels, with wall supplements in the vestibules and bathroom; hot water is provided by a water heater. The asset's state of repair is fair and the finishes are of sufficient quality.

INTERVENTION DESCRIPTION

The works approved in the meeting envisage the passage **from Energy Class G to Energy Class D** (with possible further improvement in the event of replacement of window frames).
"PRIMARY" interventions:

- Anti-seismic improvement - through structural reinforcement of wall surfaces, pillars with steel exoskeleton embedded in perimeter walls;
- Combined eco-seismic intervention (improvement of 2 seismic and eco classes).
  The works envisage the application of a mixed system of partial "ventilated" cladding and an "envelope" system on the sections of the façade where there are projecting structures;
- Replacement of existing traditional boilers (the complex is managed by 2 heating plants) with new "condensing" boilers";
- Renovation of roof on building A.

Additional or "SECONDARY" interventions:

- Replacement of "C" type water heaters with adaptation of flues;
- Adaptation of kitchen exhaust flues;
- Installation of 2 photovoltaic systems (1 per lot) with power equal to the max permitted by the Relaunch Decree;
- Installation of 1 electrical column for shared use;
- New external façade cladding in waterproof and self-cleaning porcelain stoneware tiles for heated volumes;
- Plastic covering for unheated volumes and balcony openings;
- Replacement of window and door frames in homes and stairwells;
- Balcony renovation and installation of new stoneware flooring and steel parapets with laminated glass;
- Laying of new copper downpipes;

- Replacement of armoured front doors;
- Renovation of railings in stairwells;
- Works for adaptation to fire prevention regulations in the basement garage driveways;
- Preparation for fibre cabling.

For a total estimated amount of works of approximately € 4,640,000, i.e. about € 774,000 per building or € 28,000 per unit. (* the estimates of the amounts per building and unit are indicative and derive from a simple breakdown of the total).

VALUE BEFORE AND AFTER WORKS

An analysis of a sample of buildings with the same final energy class as the upgraded building shows that energy efficiency activities in this case led to an **increase in the value of the building of between 3%-5% for each energy class**. The factors that contribute most to the increase in post-works value are:

- Improvement in the living unit (new window/door frames and new armoured doors);
- Improved living comfort;
- 40% reduction in consumption;
- Reduction in condominium charges borne by the condominiums (mainly due to savings in the production of hot water and reduction in heat dispersion);
- Aesthetic improvement in the building due to the energy retrofitting works that involve renovation of the facade;
- Maintenance of energy-construction level of the building, which without energy efficiency works would eventually deteriorate.

CASE STUDY 2

100% reduction in investment cost

BUILDING DESCRIPTION

Municipality: **TURIN**

Region: **PIEDMONT**

Year of intervention: **2020**

Climatic region: **E**

Number of residential units: **140**

INTERVENTION DESCRIPTION

- Insulation of vertical walls, insulation of roof, replacement of window/door frames and blindsi

Sqm thermal insulation: 14,797

ENERGY SAVINGS

62% Energy savings

5 Jump in class

START **E** Starting energy class

FINISH **A++** Final energy class

DEMAND

241.56 KWh/sqm$_2$ per year
Starting average energy requirement

80.15 KWh/sqm$_2$ per year
Final average energy requirement

67 % Reduction in requirement

63% SAVINGS IN CO_2 EMISSIONS

FINANCIAL SCENARIO

€ 3.06 mln
Cost of the intervention

€ 3.06 mln €
Transferable tax credit

€ 0
Residual borne by the condominium

100%

CASE STUDY 3

95% reduction in investment cost

BUILDING DESCRIPTION

Municipality: **ALBENGA**

Region: **LIGURIA**

Year of intervention: **2020**

Climatic region: **C**

Number of residential units: **94**

INTERVENTION DESCRIPTION

- Insulation of vertical walls, balconies and cornices, insulation of floors and roof covering, replacement of window/door frames

Sqm thermal insulation: 3,288

ENERGY SAVINGS

42% Energy savings

2 Jump in class

START **E** Starting energy class

FINISH **C** Final energy class

DEMAND

88.36 KWh/sqm$_2$ per year
Starting average energy requirement

48.28 KWh/sqm$_2$ per year
Final average energy requirement

45 % Reduction in requirement

44% SAVINGS IN CO_2 EMISSIONS

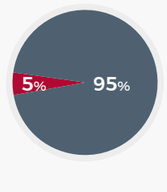
FINANCIAL SCENARIO

€ 286.4 thousand
Works not linked to energy efficiency (building refurbishment)

€ 2,616 mln
Cost of the intervention

€ 2,473 mln
Transferable tax

€ 143.2 thousand
Residual borne by the condominium



Why pay 5%? What the condominium actually pays is only 50% of the works not linked to energy efficiency (building refurbishment) which benefit from a tax deduction of 50%, equal to € 143,215, namely 5% of the total cost of the intervention.

NOTES

OUR REPORT:

- Residential Overview
- Leaseholds
- Prestigious Homes Market
- Investment Overview
- Office Market Overview
- Office Quality Focus
- Hotels

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