The Italian economy was severely affected by the economic crisis in 2008, and the construction sector in particular. One of the ways in which the Italian Government has sought to aid the recovery of the construction sector has been to support the implementation of the European Energy Efficiency Directive (2012) by placing a strong focus on energy efficiency and sustainable construction measures.

Before the introduction of new energy efficiency policy measures, Italian energy prices were on average higher than prices in other Member States. Italy consumes a higher share of natural gas, compared to other (cheaper) fuel sources that are more prevalent in other Member States. Italy is also particularly dependent on energy imports, which are substantially higher (55%) than EU-28 average net imports. This dependency on imports – for example, Italy spent EUR 57.9 billion on oil and gas imports in 2012 – has a strong macro-economic impact on the national economy.

The new National Energy Strategy (NES), approved in March 2013, placed an emphasis on making a substantial improvement in the competitiveness of the energy system together with environmental sustainability. One of the most relevant energy efficiency targets for the NES was the redevelopment of public sector buildings and strengthening the promotion of White Certificates and energy audits. White certificates were first introduced in Italy in 2004/2005 and they are an important tool for promoting energy efficiency. White certificates are tradable instruments that certify the achievement of end-use energy savings by energy efficiency initiatives and projects.

In response to the energy efficiency challenge, the Thermal Account (Conto Termico) incentive scheme was introduced by Ministerial Decree on 28 December 2012 and it entered into force on 3 January 2013.

Run by Gestore dei Servizi Energetici (GSE), a government-funded energy service management company, the scheme enables applicants to apply for incentive premiums to contribute towards the cost of energy efficiency improvements installed in buildings and technical installations (e.g. industrial plants). The purpose of the scheme is to incentivise the installation of energy saving improvements in public and private sector buildings, and to promote the uptake of measure that utilise renewable energy sources.

The Thermal Account has been running for just over 4 years. It has received about 78,000 applications in that time and has awarded a total of EUR 262 million in incentive premiums. Although these results are significant, they only amount to 29% of the available budget set by GSE per year (EUR 900 million). Stakeholders have highlighted a number of issues that they believe are limiting the appeal of the scheme, such as the burdensome nature of the application process and payment delays. GSE has been active in responding to the issues raised, for example, with the launch of Thermal Account 2.0 in 2016, which is a new and improved version of the original scheme. As a result, the number of applications has risen; however more improvements are needed to move results closer to objectives.

The results of the Public Consultation on the SEN held between June and September 2017 showed that the development of renewable energy sources is seen, together with energy efficiency, as one of the main drivers of the transformation of the energy system.
The Thermal Account (Conto Termico) is a national incentive premium scheme that was launched in 2013 and updated in 2016 (Thermal Account 2.0 / Conto Termico 2.0). The scheme aims to encourage the implementation of energy efficiency improvements in publicly-owned buildings (Category 1 measures) and the installation of high efficiency small scale heating and cooling systems that use renewable energy sources in both publicly and privately-owned buildings (Category 2 measures). Table 1 outlines the types of improvement measures that are eligible under the scheme in each category.

### Table 1: Eligible works – Thermal Account (2013) scheme

<table>
<thead>
<tr>
<th>Measure Description</th>
<th>TA 2.0</th>
<th>TA 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A Thermal insulation of opaque surfaces delimiting the air-conditioned volume.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1B Replacement of transparent closures including fixtures delimiting the air-conditioned volume.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1C Replacement of winter air-conditioning systems with condensing heat generators of any power.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1D Installation of shielding and/or shading systems for transparent closures with ESE to O exposure, fixed or mobile, non-transportable and/or bioclimatic systems.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1E Transformation into nearly Zero Energy Buildings (nZEB).</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>1F Replacement of interior and exterior lighting systems and appliances with efficient lighting systems/appliances.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>1G Installation of building automation and management technologies.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>2A Replacement of winter air-conditioning systems existing with winter air-conditioning systems using electric or gas heat pumps, too geothermal (with nominal heat output up to 1000 kW).</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2B Replacement of winter air-conditioning systems or heating of existing greenhouses and rural buildings existing with heat generators fed by biomass (with rated thermal power, up to 1000 kW).</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2C Installation of solar panels and also combined solar cooling systems (with gross solar surface up to 1000m²).</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2D Replacement of electric water heaters with a heat pump.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2E Replacement of winter air-conditioning systems with hybrid heat pump systems.</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

Source: GSE, Thermal Account Rules, March 2013

The Thermal Account scheme is being run by Gestore dei Servizi Energetici (GSE), which is a state-owned enterprise that promotes and supports environmental sustainability through energy efficiency and renewable energy sources. Since 2013, GSE has given a commitment to spend up to EUR 900 million per year on incentive premiums, including up to EUR 200 million for incentive premiums to public sector building owners, and up to EUR 700 million to private sector building owners (individuals, associations and businesses).

The scheme provides building owners with three methods for claiming the incentive premium. Public sector building owners can utilise all methods, whereas private sector building owners are limited to methods 1 and 3:

1. Direct Access – this method enables public sector building owners to claim incentive premiums for all measures (1A-1D and 2A-2D), and
private owners for measures 2A-2D, but only once work has been completed;
2. Pre-Booked Incentive – this method is only available to public sector building owners and covers all measures. It enables them to pre-book an incentive premium before work is started or completed;
3. Registry Inscription – this method is open to both public and private sector building owners but is only applicable to measures 2A and 2B.

All claims for incentive premium can be done online by following the registration and application process on the GSE website9.

The Thermal Account provides incentive premiums that range from 40% to 65% of the total expenditure incurred:
- Up to 40% for measures to insulate walls and roofs, to replace window with more efficient windows, to install sun blinds, to replace lighting systems, to install building automation technologies and to replace traditional boilers with condensing boilers;
- Up to 50% for thermal insulation measures;
- Up to 55% for measures that combine thermal insulation and window replacements, if they also combined with the installation of another system (condensing boiler, heat pumps, solar heating);
- Up to 65% for measures to replace traditional systems with heat pump systems, boilers and biomass appliances, hybrid systems with heat pumps and solar thermal systems;
- Up to 65% for the demolition of an existing building and the reconstruction of a nearly Zero-Energy Building (nZEB)10.

The Thermal Account also finances 100% of the cost of an Energy Audit and an Energy Performance Certificate (EPC) incurred by a public-sector building owner, and the energy service provider (ESCO) operating on their behalf.

50% financing of both the Energy Audit and the EPC is available for privately owned buildings. Thermal Account incentive premiums can also be combined with other non-state incentives.
Achieved or expected results

The results of the Thermal Account are published annually by GSE. Results for the period 2013-2015 are published in the form of an annual results report. Results from 2016 (Thermal Account 2.0) onwards are published on the GSE website in a series of statistical graphs, although the results data provided is less detailed than was published in the previous annual reports.

Table 2 presents the number of applications for incentive premiums that were submitted in 2013-2015. 97.6% of all applications were submitted by the private sector, compared to just 2.4% by the public sector.

The number of public sector applications doubled between 2013-14 and 2015, reaching a total of 386 after three years. A much higher number of private sector applications were submitted over the three-year period, with the number submitted in 2015 surpassing the number submitted in 2013-14. A total of nearly 31,000 private sector applications were submitted in 2013-15.

Direct access proved to be the most popular application method, accounting for 95% of all applications submitted by the public sector and 98% of those submitted by the private sector.

Table 3 presents the volume of incentive premiums awarded in 2013-2015. A total of EUR 11.09 million in incentive premiums was awarded to contribute towards the cost of energy efficiency measures in public sector buildings, which is just 5.5% of the EUR 200 million annual available budget for public sector buildings. A total of EUR 51.34 million in premiums was awarded for measures in private sector buildings, which is just 7.3% of the EUR 700 million annual available budget for private sector buildings. When compared to the total annual available budget of EUR 900 million, the total award value for the first three years amounted to just 6.9% of the available budget for each year.

The results published by GSE since the launch of Thermal Account 2.0, from 2016 onwards, are presented in a less detailed manner than in previous annual reports. Table 4 shows the overall results of the Thermal Account scheme since its inception (2013-2018).

Table 3: Premiums awarded 2013-2015 (M EUR)

<table>
<thead>
<tr>
<th></th>
<th>2013 - 2014</th>
<th>2015</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public-sector</td>
<td>3.87</td>
<td>7.22</td>
<td>11.09</td>
</tr>
<tr>
<td>Direct access</td>
<td>3.64</td>
<td>6.85</td>
<td>10.49</td>
</tr>
<tr>
<td>Pre-booked incentive</td>
<td>0.23</td>
<td>0.17</td>
<td>0.40</td>
</tr>
<tr>
<td>Registry inscription</td>
<td>-</td>
<td>0.20</td>
<td>0.20</td>
</tr>
<tr>
<td>Private-sector</td>
<td>23.51</td>
<td>27.83</td>
<td>51.34</td>
</tr>
<tr>
<td>Direct access</td>
<td>20.16</td>
<td>24.73</td>
<td>44.89</td>
</tr>
<tr>
<td>Registry inscription</td>
<td>3.35</td>
<td>3.10</td>
<td>6.45</td>
</tr>
<tr>
<td>Total</td>
<td>27.38</td>
<td>35.05</td>
<td>62.43</td>
</tr>
</tbody>
</table>

Source: EGSE, Thermal Account Results Report 2015

Table 4: Thermal Account results up to 1 March 2018

| Total number of applications received | 78,000 |
| Total value of incentive premiums awarded: | EUR 262 M |
| of which by Direct Access: | EUR 224 M |
| Public Sector: | EUR 38 M |
| Private Sector: | EUR 186 M |

Source: GSE, Thermal Account Results, March 2018
Compared to the scheme’s original maximum budget of up to EUR 90 million per year, it has only managed to award 29% of that figure over 4.25 years (EUR 262 million by 1 March 2018).

Looking forward, GSE has announced that it is currently committed to spending:
- EUR 61.2 million on premiums in 2018, including EUR 7.5 million for the public sector and EUR 53.7 million for the private sector; and
- EUR 8.9 million on premiums in 2019, including EUR 1.2 million for the public sector and EUR 7.7 million for the private sector.
Perspectives and lessons learned

Since its introduction, the number of applications has increased despite the fact that the scheme was not sufficiently disseminated. In terms of the new Thermal Account 2.0, GSE highlights the important role that the new catalogue of eligible appliances is playing despite not being finalised yet. The catalogue simplifies the work of applicants by listing the type of appliances that are eligible for a subsidy. As a result, applicants can guarantee a subsidy and installers know which appliances to choose.

From an implementation perspective, Gestore dei Servizi Energetici (GSE) says that they consider the implementation of the Thermal Account scheme to have been successful so far.

From an industry perspective, the Association of Heating Systems Equipment and Component Manufacturers (Associazione produttori apparecchi e componenti per impianti termici – ANIMA) welcomes the introduction of the Thermal Account scheme but notes that the implementation has been limited so far.

The association believes that a simplification of the application procedures would facilitate the work not only for applicants but also for GSE, as the organisation in charge of evaluating the applications. This simplification would dramatically reduce the time it takes to provide a resolution to applicants. In addition, better communication and dissemination would be very beneficial, and is essential to raise awareness about the existence of the scheme.

The Italian Association of Air Conditioning, Heating and Refrigeration (Associazione italiana Condizionamento dell’Aria Riscaldamento e Refrigerazione – AICARR) says that there are two major concerns with the scheme. Firstly, the Association expressed their concern about the delayed implementation of the new Thermal Account (2.0), as it took more time than expected, which they argue has had a negative impact on potential beneficiaries. Secondly, there is concern about the low level of applications that have been approved and the difficulties that applicants are facing in order to understand which procedures to follow, and what documents to present and when.

According to RIDO Punto Energia, the Thermal Account scheme has not achieved its expected results thus far and it points to concerns about the burdensome nature of the application process, which it says is discouraging potential beneficiaries for applying.

In addition, RIDO says that the scheme has not been disseminated effectively, which has not helped to increase application numbers. There are two main reason for the poor dissemination of the scheme. Firstly, installers have not done enough to make potential beneficiaries sufficiently aware of the Thermal Account scheme and its benefits. There is still some doubt about whether installers are themselves fully aware about the scheme or whether they lack sufficient knowledge or expertise to install new energy efficiency technologies. Secondly, the implementing organisation (GSE) has not run an effective communication campaign to inform the public about the scheme and its procedures. For many applicants, the application procedure was unclear and GSE has not provided enough advice and support to applicants and potential applicants. Last but not least, applicants have had to wait a significant amount of time to receive approval for their applications, and then even longer to actually receive their premium. As a result, many potential applicants have been discouraged from applying to this scheme, as they are not able to afford to pay the required investment costs up front.
Endnotes

1 Public sector building owners – this term covers all state-owned buildings, including institutions and schools of all levels and educational institutions, companies and administrations of the Autonomous state, Regions, Provinces, Municipalities, Mountain Communities and their consortia and associations, university institutions, public authorities, or heritage managers of public housing, Chambers of Commerce, Industry, Crafts and Agriculture and their associations, all national, regional and local non-economic public bodies, the administrations, the companies and bodies of the National Health Service, pursuant to Article 1, paragraph 2 of the Decree Legislative March 30, 2001, n. 165.

2 GSE, Thermal Account (Conto Termico):
   https://www.gse.it/servizi-per-te/efficienza-energetica/conto-termico

3 Italian Energy Efficiency Action Plan 2014:

4 Italy’s National Energy Strategy 2017:

5 ENEA, Energy Efficiency Trends and Policies in Italy, 2015:

6 GSE, Thermal Account (Conto Termico):
   https://www.gse.it/servizi-per-te/efficienza-energetica/conto-termico

7 ESE = Entrance Skin Exposure

8 GSE, Thermal Account Rules, March 2013:

9 Thermal Account (Conto Termico) registration and application on GSE website:
   https://applicazioni.gse.it

10 GSE, Thermal Account (Conto Termico), Incentives:
    https://www.gse.it/servizi-per-te/efficienza-energetica/conto-termico/quote-incentivate

11 GSE, Thermal Account Results Report 2015:

12 Ibid

13 GSE, Thermal Account Results, March 2016:
    https://www.gse.it/servizi-per-te/conto-termico-aggiornato-il-contatore-al-1-marzo-2018

14 QualEnergia, New Thermal Account: comments of the associations:
   http://www.qualenergia.it/articoli/20160303-nuovo-conto-termico-gazzetta-i-commenti-delle-associazioni

15 RIDO Punto Energia, The Evolution of the Thermal Account (from July 2013 to 1st October 2017):
   http://www.ridopuntoenergia.it/2017/10/18/l-evoluzione-del-conto-termico/