



DEESME 2050

Developing Energy Efficiency Projects in SMEs for European 2050 targets

D4.1 Inventory and categorisation of funding opportunities analysis for energy efficiency

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2. EXECUTIVE SUMMARY

SMEs are extremely core-business focused organizations, therefore assistance in project financial preparation and access to financing opportunities at different levels is crucial for the implementation of energy efficiency measures. Funding opportunities dedicated to energy efficiency and available from the public and private finance sectors are a consolidated reality throughout Europe. In addition to the EU structural funds, funding opportunities from European Investment Bank, European Bank for Reconstruction and Development, private banks and programmes from non-profit foundations are available.

The main challenge for SMEs is to transform funding opportunities into useful tools to support medium-long term energy efficiency plans. This document shows an inventory of the funding opportunities available for SMEs to provide companies and their associations, ESCOs and consultants, etc. with structured information about suitable ways to fund energy efficiency.

Over the next two years, Member States will be committed to transposing Article 30 on national energy efficiency funds, financing and technical support of the Directive (EU) 2023/1791 on energy efficiency (EED recast). In December 2023, the Commission published a recommendation on energy efficiency financing under new Directive¹. The recommendation is aimed at policy makers, with the objective to support Member States with the transposition and implementation of Article 30, which sets out key provisions to facilitate investments in energy efficiency. The aim is to contribute to a uniform understanding of the legislation across Member States as they prepare their transposition measures.

As public finance alone (including funds from the EU budget) will not be sufficient to meet the required investment needs to achieve the new 2030 energy efficiency goals, the majority of financial support will need to come from the private sector. Therefore, Article 30 strengthens the legal and policy framework for energy efficiency financing, with the aim of increasing the cost-effectiveness of public budget support and attracting more private investment.

This report first summarises opportunities available at EU level (directly or through national institutions), then illustrates the main incentive schemes available in the Member States covered by the project (i.e. Bulgaria, France, Italy, Poland). The

¹ https://energy.ec.europa.eu/news/commission-publishes-recommendation-energy-efficiency-financing-under-new-directive-2023-12-18_en

references page at the end of the report offers useful links to national authorities and agencies that manage the national schemes to go into more details.

3. EU Funding opportunities

3.1 European Structural and Investment Funds

The [European Structural and Investment Funds](#) (ESI Funds, ESIFs) are financial tools governed by a common rulebook, set up to implement the regional policy of the European Union, as well as the structural policy pillars of the Common Agricultural Policy and the Common Fisheries Policy. They aim to reduce regional disparities in income, wealth, and opportunities. Europe's poorer regions receive most of the support, but all European regions are eligible for funding under the policy's various funds and programmes.

The current framework is set for a period of seven years, from 2021 to 2027. It is important to highlight in this framework that ESI Funds supported more than 4 million small and medium businesses (SMEs) by the end of 2021.

Despite being available only for specific regions, ESI funds provide an important support also to SMEs, depending on the priorities set at national level by the involved Member States.

Generally speaking, SMEs could need external support to be able to access the resources provided by ESI funds. Even if the EU has improved over time the support facilities available for targeted stakeholders, it could be useful to search for companies in the same Member State capable of providing support with accessing such opportunities.

The information provided are extracted from the official EU websites, reachable through the provided web links.

3.1.1 European Regional Development Fund (ERDF)

The [European Regional Development Fund](#) (ERDF) is designed to strengthen economic, social, and territorial cohesion in the European Union. It aims to do this by correcting imbalances between regions enabling investments in a smarter, greener, more connected, and more social Europe that is closer to its citizens. The ERDF finances programmes in shared responsibility between the European Commission and national and regional authorities in Member States. The Member States' administrations choose which projects to finance and take responsibility

for day-to-day management. The information provided hereby come from the dedicated section on the EU website².

In 2021-2027, the fund will enable investments to make Europe and its regions with the following characteristics:

- more competitive and smarter, through innovation and support to small and medium-sized businesses, as well as digitisation and digital connectivity;
- greener, low-carbon, and resilient;
- more connected by enhancing mobility;
- more social, by supporting employment, education, skills, social inclusion and equal access to healthcare, as well as by enhancing the role of culture and sustainable tourism;
- closer to citizens, supporting locally-led development and sustainable urban development across the EU.

With small and medium-sized enterprises being the backbone of the European economy, the ERDF continues to support the development of SMEs by enhancing their sustainable growth and competitiveness. Additionally, considering the potentially profound impact of the COVID-19 pandemic or any other potential crisis arising in the future having an impact on businesses and employment, the ERDF supports the recovery from such crisis situations by supporting job creation in SMEs, including by way of productive investments. The ERDF may support the financing of working capital in SMEs in the form of grants, where strictly necessary as a temporary measure to respond to exceptional or unusual circumstances.

3.1.2 Cohesion Fund (CF)

The [Cohesion Fund](#) was set up in 1994 and provides funding for environmental and trans-European network projects in the Member States whose gross national income per capita is less than 90% of the EU average. The Cohesion Fund was established for the purpose of strengthening the economic, social, and territorial cohesion of the European Union in the interests of promoting sustainable development. In the 2021-2027 programming period it provides support to:

²

https://ec.europa.eu/regional_policy/funding/erdf_en#:~:text=The%20European%20Regional%20Development%20Fund,is%20closer%20to%20its%20citizens

- Investment in the environment, including areas related to sustainable development and energy which present environmental benefits;
- Trans-European networks in the area of transport infrastructure (TEN-T);
- Technical assistance.

For projects serving the EU's environmental protection objectives, the Cohesion Fund may also contribute in fields relating to sustainable development, such as energy efficiency and renewable energy. The Cohesion Fund is reserved for Member States whose gross national income (GNI) per capita is less than 90% of the EU average.

During the 2021-2027 programming period, the Cohesion Fund is providing support for 15 Member States: Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.

The rules for the Cohesion Fund for the 2021-2027 period are established in the regulation on the European Regional Development Fund and on the Cohesion Fund. It will support projects under the 'Investment for growth and jobs' goal, mainly for environmental and transport infrastructure projects, including trans-European networks (TEN-T). The regulation maintains the thematic concentration of the EU cohesion policy.

In the 2021-2027 period, the European Union will allocate EUR 42.6 billion (at 2018 prices) to the Cohesion Fund, out of which the contribution to the Connecting Europe Facility will amount to EUR 10 billion. The co-financing rate can reach up to 85% of the value of the projects. 37% of the Cohesion Fund's total financial allocations are expected to contribute to EU climate objectives.

3.1.3 Just Transition Fund (JTF)

The [Just Transition Fund \(JTF\)](#) is a new instrument of the Cohesion Policy 2021-2027, as the first pillar of the Just Transition Mechanism in the context of the European Green Deal aiming at achieving the EU climate-neutrality by 2050. The JTF supports the territories most affected by the transition towards climate neutrality to avoid regional inequalities growing, in line with EU cohesion policy's aim to reduce regional disparities and to address structural changes in the EU. The Commission has set up a Just Transition Platform to help EU countries and regions to unlock the support available through the Just Transition Mechanism.

Support will be available to all Member States, focused on regions that are the most carbon-intensive or with the most people working in fossil fuels³. Member States can get access by preparing territorial just transition plans that cover the period up to 2030, identifying the territories that should get the most support. The plans should also set out ways to best address social, economic, and environmental challenges. JTF will protect people and citizens most vulnerable to the transition by:

- facilitating employment opportunities in new sectors and those in transition;
- offering re-skilling opportunities;
- improving energy-efficient housing;
- investing to fight energy poverty;
- facilitating access to clean, affordable and secure energy.

JTF will support companies and sectors, active in or comprising carbon-intensive industries by:

- supporting the transition to low-carbon technologies and economic diversification based on climate-resilient investments and jobs;
- creating attractive conditions for public and private investors;
- providing easier access to loans and financial support;
- investing in the creation of new firms, SMEs and start-ups;
- investing in research and innovation activities.

3.1.4 Innovation Fund

The [Innovation Fund](#) is one of the world's largest funding programmes for the demonstration of innovative low-carbon technologies. The funding originates from credits of the Emission Trading Scheme (ETS). It focusses, among others, on innovative technologies and processes in energy-intensive industries, including products substituting carbon-intensive ones and on innovative renewable energy generation.

The Innovation Fund can be seen as one of the key funding instruments for delivering the EU's economy-wide commitments under the Paris Agreement external link icon and supporting the European Commission's strategic vision of a climate-neutral Europe external link icon by 2050. Between 2020-2030, around

³ https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

€ 10 billion will be available to invest in the European Union's climate neutral future.

The Innovation Fund focuses on highly innovative technologies and big flagship projects with European value added that can bring significant emission reductions. It is about sharing the risk with project promoters to help with the demonstration of first-of-a-kind highly innovative projects. The Fund aims to finance a varied project pipeline achieving an optimal balance of a wide range of innovative technologies in all eligible sectors (energy intensive industries, renewable energy, energy storage, CCS and CCU) in EU Member States, Iceland and Norway. At the same time, the projects need to be sufficiently mature in terms of planning, business model and financial and legal structure. The Fund also supports cross-cutting projects for innovative low-carbon solutions that lead to emission reductions in multiple sectors, for example through industrial symbiosis.

3.1.5 InvestEU

The [InvestEU Programme](#) supports sustainable investment, innovation and job creation in Europe. With the EU budget guarantee provided to International and National promotional banks, the InvestEU programme aims to trigger more than €372 billion in private investments to high EU policy priority areas.

The InvestEU programme provides the European Union with crucial long-term funding by leveraging private and public funds in support of Europe's sustainable recovery. It helps to mobilize private investments for the EU's top policy priorities, such as the green, and digital transition, innovation and social investments, and skills. It also supports the REPowerEU plan - the Commission's response to the global energy market disruption caused by Russia's war of aggression against Ukraine.

The InvestEU programme brings together the multitude of earlier EU financial instruments, making access to finance and investments in European companies (even small and medium sized ones) and projects simpler, more efficient, and more flexible. The InvestEU programme consists of three components:

- the InvestEU Fund;
- the InvestEU Advisory Hub;
- the InvestEU Portal.

The InvestEU Fund is implemented through financial partners that will invest in projects, benefitting from the protection of EU budget guarantee. The €26.2 billion

EU budget guarantee backs the investments of financial partners (the “implementing partners”), increasing their risk-bearing capacity and thus allowing to mobilise at least €372 billion in additional investment.

3.1.6 Recovery and Resilience Facility (RRF)

The [Recovery and Resilience Facility \(RRF\)](#) is a temporary instrument that is the centrepiece of NextGenerationEU, the EU’s plan to emerge stronger and more resilient from the pandemic crisis.

Through the Facility, the Commission raises funds by borrowing on the capital markets (issuing bonds on behalf of the EU). These are then available to its Member States to implement ambitious reforms and investments that:

- make their economies and societies more sustainable, resilient, and prepared for the green and digital transitions, in line with the EU’s priorities;
- address the challenges identified in country-specific recommendations under the European Semester framework of economic and social policy coordination.

[Country pages](#) can also be found on the official website. These pages contain all relevant country-specific information, including the recovery and resilience plans, the Commission’s assessment of the plans as well as information on payments requested by the Member States and funds paid out by the Commission.

These are the country pages available for the Member States covered in detail by this report:

- [Bulgaria](#)
- [France](#)
- [Italy](#)
- [Poland](#)

RRF is providing large support also to SMEs. As with other EU and national support tools, SMEs can find difficulties to access funding if not prepared. Many times energy audits or preliminary projects have to be submitted in order present the application. For this reason it is important to start analysing the available energy efficiency options.

3.2 European Investment Bank (EIB)

EIB have aligned all financing activities with the principles and goals of the Paris Agreement, a commitment that builds a pathway towards low greenhouse gas emissions and climate-resilient development. The November 2019 EIB Energy Lending Policy informs EIB's stakeholders on what types of energy projects are consistent with the Bank's objectives, how energy projects will be assessed and prioritised by the Bank and how the Bank supports EU energy policy. A wide variety of loans, equity and guarantee products combined with advisory services are offered to both large companies and SMEs supporting this ambition⁴.

EIB manages the European Local ENergy Assistance (ELENA) facility, which provides grants and technical advice to the public and private sectors to help energy efficiency projects. ELENA supports the preparation of projects that improve energy efficiency and renewable energy use in buildings, including energy efficiency in residential and non-residential buildings, building-integrated renewables (such as solar panels), public lighting, district heating (including combined heat and power plants and biomass boilers), and smart grids.

Jointly with the European Commission, the European Investment Bank participates in the Private Finance for Energy Efficiency (PF4EE) initiative. The instrument aims at increasing the availability of debt financing for eligible energy efficiency investments and at making energy efficiency lending a more sustainable activity within European financial institutions. In collaboration with pilot banks in Europe, PF4EE offers preferential loans for private economic entities who want to invest in energy saving projects. To facilitate energy efficiency lending under PF4EE, partner banks and their clients can draw on dedicated online tools. These can be used to assess whether their energy savings project meets the main program criteria, support financial intermediaries in marketing dedicated energy efficiency financing offers, and raise awareness and facilitate on-lending, allowing to estimate a preliminary value of potential energy savings.

EIB also support Member States through JASPERS, funding projects and programmes supported by the EU structural and Cohesion Fund and the Just Transition Fund.

4

<https://www.eib.org/en/products/equity/investment-funds/index#:~:text=We%20have%20aligned%20all%20our,emissions%20and%20climate%20resilient%20development>

3.3 European Bank for Reconstruction and Development (EBRD)

EBRD have several funding programmes targeting the corporate sector on their countries of operation, including the EU neighbourhood countries on Western Balkan (Albania, Bosnia-Herzegovina, Montenegro, North Macedonia, Serbia), Ukraine and Turkey.

The EBRD High Impact Programme for the Corporate Sector is an innovative financing instrument that promotes a transformative shift in the corporate sector. This is achieved by supporting the uptake of high climate impact technologies as well as incorporating climate change targets and climate governance principles into strategic decision-making.

The EBRD can offer high impact loans, where the interest rate of the loan is coupled with the climate outcome of the investment. In practice, a discount on the interest rate will be realised upon achieving pre-agreed, covenanted milestones in specific climate impact areas of high relevance for the specific sector and its value chain. The discount structure applies to the donor-funded tranche of the loan and reflects technology installation (CAPEX) and corporate climate governance improvements.

The EBRD flagship Green Economy Financing Facilities (“GEFFs“) for the financial sector, combine technical support and finance to accelerate the uptake of best performing technologies among small businesses and homeowners. In partnership with local financial institutions, GEFFs provide training and online tools to help originate investment needs and identify best performing solutions. Better-informed investment decisions contribute to enhanced sector performance and help strengthen the local supply of green technologies and related services. GEFFs support making financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development that is compatible with the climate change mitigation and adaptation objectives of global agreements on climate change. The GEFF programme operates through a network of more than 150 local financial institutions across 28 countries and has delivered more than EUR 5 billion to around 250,000 eligible investments undertaken by industrial, SME, residential and municipal clients that are collectively estimated to avoid more than 9 million tonnes of CO₂ each year.

The EBRD FINTECC programme established to promote climate technology transfer across the private sector in several of its countries of operation, provides technical assistance and incentive grants to introduce innovative climate

technologies with low market penetration and to foster transition to more sustainable business models, in the context of an EBRD direct investment in the company. The programme is active in the commercial and industrial sectors and targets private SMEs and mid-cap companies.

4. Bulgaria

4.1 National funding opportunities

4.1.1 National mechanism for financing energy efficiency (NMFEE)

The aims of the mechanism are in line with the aims of European financial institutions to expand access to competitive financing by enhancing:

- the process of mobilising private financing, and
- the efficient use of grant assistance

The national mechanism envisages financing through different mechanisms and financial instruments, including credit lines, guarantees or combinations of the two, etc. The [NMFEE](#) also envisages technical assistance for the implementation of energy efficiency projects. The financing of integrated measures and the development of appropriate instruments for financing individual energy efficiency measures under the mechanism is further envisaged.

The assistance will target the achievement of energy efficiency in:

- the industrial sector;
- transport and infrastructure;
- the public sector;
- the sector of residential and non-residential buildings.

The necessary financing will be provided from different sources, including the European Structural and Investment Funds, the European Investment Bank, the European Bank for Reconstruction and Development, the Just Transition Fund, Invest EU, etc.

The engagement of local banks and international financial institutions in this financial initiative is a key requirement for the successful implementation of the Mechanism because it can significantly simplify the lending process. The estimated budget of the measure for the period 2021-2030 is approximately 4 billion euros

with an expected cumulative energy savings in final energy consumption of 294,802 ktoe.

4.1.2 Bulgarian Energy Efficiency and Renewable Sources Fund (EERSF)

The Energy Efficiency and Renewable Sources Fund (EERSF) was established through the Energy Efficiency Act adopted by the Bulgarian Parliament in February 2004. The initial capitalization of EERSF is entirely with grant funds; major donors are the Global Environment Facility through the International Bank for Reconstruction and Development (the World Bank) - USD 10 million; the Government of Austria - Euro 1.5 million; the Government of Bulgaria - Euro 1.5 million and several private Bulgarian companies.

EERSF has the combined capacity of a lending institution, a credit guarantee facility and a consulting company. It provides technical assistance to Bulgarian enterprises, municipalities, and private individuals in developing energy efficiency investment projects and then assists their financing, co-financing or plays the role of guarantor in front of other financing institutions.

The underlying principle of EERSF's operations is a public-private partnership. The Fund pursues an agenda fully supported by the Government of Bulgaria, but it is structured as an independent legal entity, separate from any governmental, municipal, and private agency or institution (<https://www.bgeef.com/en/about-us/>).

The Energy Efficiency and Renewable Sources Fund finances energy efficiency measures for:

- Municipalities
- Corporate clients
- Private individuals

The financial resources of the Energy Efficiency and Renewable Sources Fund are being used to finance the following type of investments:

- Investments in improved energy efficiency in industrial processes;
- Rehabilitation of buildings;
- Improvements to the heat source and distribution system.

4.2 Measures available from National Energy and Climate Plan

Bulgaria finances public research institutions on the basis of effectiveness criteria and has developed national research programmes with the aim of consolidating research potential and resources.

EU funding has a significant share in Bulgaria's total public investment. In the multi-annual financial framework for the period 2014–2020, the financial envelope from the EU Structural and Investment Funds earmarked as support intended to help Bulgaria address reform challenges is in the amount of EUR 11.7 billion or approximately 2.8 % of Bulgaria's GDP per year.

At the same time, many Bulgarian research institutions, innovative companies and researchers have received grants from other sources and EU programmes, such as the Horizon 2020 Programme. Their currently stands at approximately EUR 65 million EU financing helps companies and research institutions mobilise additional private investments.

Grant assistance from the European Regional Development Fund alone has generated approximately EUR 113 million in additional private capital for companies. A total of 5.2 % of the financing available under the European Regional Development Fund has been earmarked for RD&I and SMEs, entrepreneurship, energy efficiency, urban development and environmental management. These funds will help raise an additional EUR 247 million in public and private investment. Six infrastructure and innovation projects in which Bulgaria will participate have been approved to date. Their total amount is EUR 302 million, which in turn is expected to generate EUR 769 million in investments.

5. France

5.1 National funding opportunities

5.1.1 Tremplin pour la transition écologique des PME

“Tremplin pour la transition écologique des PME” is intended for companies that wish to engage in ecological transition. Its objective is to finance various actions, whether investments or studies consistent with the ecological transition. This scheme stands in relevant for its simplicity, since it consists of an open window (processing of requests as it happens), offers a calculation according to a fixed scale and is obtained via a simplified request. The list of eligible operations is established in a document published by ADEME (French NA), and includes, among others: the carrying out of GHG emissions reports, energy audits for the tertiary decree, or the installation of indoor lighting. LED module, building insulation, installation of renewable energies such as geothermal energy, connection to a heating or cold network, as well as operations linked to mobility and waste management.

5.1.2 Prêt Economie d’Energie (PEE)

PEE makes it possible to finance companies in their investment projects relating to environmental protection and energy saving issues. This loan finances equipment eligible for Certificats d’économies d’énergie (CEE) for the industrial and tertiary sectors, as well as the following expenses up to 40% of the loan amount:

- material and intangible investments which have a low collateral value (in particular those which allow optimization of resources and processes),
- the design of a product or process (study and feasibility costs, expenses for directly assigned personnel),
- the expenses necessary to carry out standardized operations (works, purchases of services, costs linked to tests).

Eligible expenses concern installations and work to bring high energy-consuming stations up to standard, in terms of lighting, heating, air conditioning and electric motorization:

- lighting: luminaire with electronic ballast for T5 or T8 fluorescent tubes, or for sodium or ceramic metal halide lamp; presence detector on a lighting device; control device using light variation;
- cooling: vertical type refrigerated cabinet with only pediment lighting;
- heating, air conditioning: heat pump, including dual flow: electric with a COP greater than 3.4, or with gas absorption or with a gas engine with a COP greater than 1.3 (the professional carrying out the installation holds the Qualipac designation or any other qualification or certification in the field of heat pumps); condensing boiler; micro-cogeneration whose electricity produced is not subject to a purchase obligation;
- electric motor: high efficiency IE2 or IE3 motor; electronic speed variation system on asynchronous motor; Synchronous motor-variator with permanent magnets.

5.1.3 Certificats d'économies d'énergie (CEE)

The Certificats d'économies d'énergie (CEE) scheme is a mechanism which obliges energy suppliers (electricity, gas, fuel oil, fuels, LPG, etc.) to encourage energy saving work among individuals, co-ownership associations, local authorities, businesses, etc. Energy suppliers have targets to meet every three years. If they do not achieve them, they are financially penalized by the public authorities. To encourage individuals, these energy suppliers grant financial aid (bonuses, vouchers, discounts, subsidized loans, subsidies, etc.) or technical aid (housing audits, etc.).

Depending on the work and the improvement in energy efficiency obtained (installation of an efficient boiler, reinforcement of the insulation of the roof, walls, change of windows, etc.), individuals obtain Savings Certificates of energy (CEE). Energy suppliers provide them with assistance in exchange for their Certificates.

This concerns owner-occupiers, landlords, tenants or free occupants who plan to carry out energy saving work in their home of more than 2 years (main or secondary residence).

The aid offered is more significant for households experiencing fuel poverty.

The CEE scheme allows you to benefit from an exceptional bonus to finance certain energy renovation work.

This bonus is granted for expenses incurred before December 31, 2021. All households can request it. Its amount will differ depending on their income level.

Eligible measures are:

- insulation;
- roof removal;
- replacement of a coal, oil or gas boiler other than condensing with equipment using renewable energy;
- replacement of old electric convectors with efficient electric radiators;
- installation of a programmable thermostat;
- comprehensive and efficient renovation of a home leading to at least 55% energy savings for a house and 35% for a collective building with the installation of a heating system using renewable energies or recovery.

5.1.4 Crédit d'impôt - Entreprise réalisant des travaux de rénovation énergétique

The [tax credit](#) concerns expenses incurred for work to improve the energy efficiency of tertiary buildings of SMEs.

The tax credit concerns certain expenses aimed at improving the energy efficiency of premises for tertiary use (offices, shops, warehouses, etc.) of SMEs. Its amount is 30% of eligible expenses, within the limit of €25,000 tax credit per company.

Eligible measures are:

- insulation of attics or roofs;
- wall insulation;
- insulation of flat roofs;
- collective solar water heater;
- air/water, water/water or ground/water heat pumps (including hybrid heat pumps, absorption heat pumps and gas engine heat pumps);
- single flow or double flow mechanical ventilation;
- connection of a tertiary building to a heating network or a cold network;
- collective biomass boiler;
- heating and ventilation control/programming systems;

- reduction of solar gain through the roof (for overseas territories only);
- protection of bays against solar radiation (for overseas territories only);
- efficient air conditioner (for overseas territories only).

The eligible expenditure base will include the total amount of expenses excluding tax (including the cost of labor and possible project management assistance).

5.1.5 PRO-refei

The PROREFEI Program aims to train employees in charge of energy management in industry and the complex tertiary sector to bring about concrete, realistic and profitable energy optimization projects, adapted to the constraints of each company. It is developed by ATEE and financed by the Certificats d'économies d'énergie (CEE) scheme.

5.1.6 PRO-SMEn

PRO-SMEn encourages and rewards the implementation of energy management systems compliant with the ISO 50001 standard, in industrial companies, through the payment of a bonus. The bonus is equal to 20% of the annual energy expenditure of certified sites; the bonus reaches up to 40,000 euros (90% of beneficiaries received the maximum bonus of 40,000 euros in 2022);

PRO-SMEn aims to accelerate the deployment of the ISO 50001 standard in companies, on the national territory.

5.2 Measures available from National Energy and Climate Plan

In French NECP, there are five of France 2030's ten "strategic priorities" applying directly to the field of energy. One of these priorities is producing the first low-carbon aircraft in France by 2030. This project must be both French and European, in order to continue the intense R&D in the aviation sector. It mobilises large groups, but also innovative SMEs and start-ups in the sector.

Greenhouse gas emission reductions in industry are also generated by some cross-cutting measures: energy savings certificates scheme, Ademe Heat Fund and obligation to carry out energy audits for large companies.

In French NECP, there are some specific additional schemes for industrial enterprises such as the Eco Energy Loan. Ranging from EUR 10,000 to EUR 500,000, this loan makes it possible to finance the purchase or installation works carried out by VSEs and small SMEs investing in equipment generating energy savings certificates.

6. Italy

6.1 National funding opportunities

6.1.1 White Certificates scheme

The [Italian White Certificates scheme](#) is an Energy Efficiency Obligation Scheme in which the electricity and gas distributors with more than 50,000 clients are obliged to reach annual energy efficiency targets, proportional to the share of energy carriers distributed. White Certificates (WhC) give proof of end-use energy saving achieved through projects aimed at increasing energy efficiency in the final uses of energy. Eligible projects can be implemented by the obliged parties themselves, or by eligible parties (small DSOs, ESCOs, companies with a certified energy management expert or energy management system), which can obtain certificates and subsequently sell them via the dedicated spot market or bilateral exchange platform to the obliged parties.

In 2017, Italian legislation introduced a deep redesign of the scheme, in particular for the M&V process. Since then, direct energy saving measurement is requested for all types of projects and in all sectors and simplified approaches based on deemed savings are no more accepted. In 2021 a new decree was issued to improve the mechanism. Its objective was mainly to set the new targets for the beginning of this decade and to introduce new tools to improve the success score of the applicants and increase the interest of enterprises and market operators toward the scheme.

The WhC scheme is the sole scheme in Italy that provides measured savings: this ensures the assessment of high-quality and real savings that can be verified and validated. Although measured savings have been in place since the start-up of the mechanism, since 2017 the evaluation of the energy consumption baseline, the required meters, and the evaluation of additionality have become more challenging⁵. Despite the complexity if compared with policy measures based on savings' estimates, M&V works well at least for medium and large projects and generated many benefits on the value chain (e.g. qualification of ESCOs, energy managers, and energy professionals, higher energy savings due

⁵ The approach is in line with IPMVP option B, so based on per-project measurement and not on general meters. However, it goes beyond the protocol since it requires everything to be measured and not estimated and the use of hourly meters.

to the incentive linked to the real performance, stimulus on EPC, valuable data collected by the managing agency, etc.).

The scheme currently generates around 250 euros for each saved toe (i.e. around 1,200 cubic meters of natural gas, 5.3 MWh of electricity, or 11.6 MWh of other energy sources). White certificates are granted for 3 to 10 years depending on the complexity of the project and on its annual performance.

6.1.1.1 *Examples*

An ESCo carried out an energy efficiency project at a manufacturing SME. The project dealt with compressed air production in an Italian glass factory. The first step of the project was the analysis of electricity and specific compressed air energy consumption. The second project phase consisted in leaks detection for compressed air and optimization of the distribution internal grid. Finally, the last part was the substitution of three 270 kW power engines with two 270 kW engines plus a 400 kW one. Losses reduction and replacement of a compressor with a more performing and correctly sized one allowed to generate energy savings.

Ex-post analysis showed almost 180 toe/years of expected savings and the project was admitted to white certificates Italian scheme. It's important to note that measurements were performed both before and after the project to identify the most effective solution and accurately report energy efficiency. Considering an average value of one certificate of 250 €, the project was able to obtain 44,500 €/year with a total benefit (5 years) of 222,500 €, so there was a relevant reduction of payback-time (1,5 years) that made the project attractive for a SME.

6.1.2 National Recovery and Resilience Plan (PNRR)

Following the unprecedented crisis caused by the COVID-19 pandemic, [Italy's recovery and resilience plan](#) has responded to the urgent need to foster a strong recovery, while making Italy's economy and society more resilient and future ready. In response to the energy market disruption caused by Russia's invasion of Ukraine, the Commission launched the REPowerEU Plan. The Recovery and Resilience Facility is at the heart of its implementation and its funding. Under REPowerEU, EU countries are updating their recovery and resilience plans with new measures to save energy and diversify the EU's energy supplies.

The reforms and investment in Italy's plan, approved by Council on 13 July 2021, as amended on 19 September 2023, are helping it become more sustainable, resilient, and better prepared for the challenges and opportunities offered by the green and digital transitions.

The transformative impact of Italy's plan is the result of a strong combination of reforms and investment which address the country's specific challenges. The reforms address bottlenecks to lasting and sustainable growth, while investments are targeted to fostering the digital and green transition as well as addressing social and territorial divides.

There are many measures covering energy efficiency, renewable energy, and digitalisation for SMEs in various sectors.

All measures have to be implemented within a tight time frame, as the Regulation establishing the Recovery and Resilience Facility requires all milestones and targets within the national plans to be completed by August 2026.

6.1.2.1 Examples

FRI-Tur is the programme that aims to improve the hospitality services and to enhance the facilities accommodation, with a view to digitalisation and environmental sustainability. Provided by the PNRR, it is promoted by the Ministry of Tourism and is managed by Invitalia.

The benefits are aimed at:

- Hotels;
- Farmhouse;
- Open-air accommodation facilities;
- Companies in tourism, recreational, trade fairs and conferences business;
- Beach resorts;
- Spa;
- Tourist ports;
- Theme parks, including water and wildlife parks.

FRI-Tur will help companies improve in the field of digitalization and environmental protection. Projects must be carried out by 31 December 2025 and be in line with the legislation on environmental issues both at national and European level.

Energy efficiency measures eligible deal with:

- Global energy requalification measures carried out on existing buildings for the reduction of the annual primary energy consumption for winter air conditioning;
- Measures on the building envelope (roofing and floors, windows, screens solar, connection to efficient district heating);
- Installation of thermal solar panels;
- Measures on air conditioning and production of domestic hot water (condensing boilers, heat pumps);
- Installation of building automation systems.

6.1.3 Ecobonus and superbonus

The “*Ecobonus*” is a tax relief that varies from 50% at 85% on expenses incurred for the investment depending on the type of energy efficiency measure carried out (the highest reliefs are for condominiums and require the improvement of the seismic resistance class of the building. The relief is recovered by the beneficiary in ten annual instalments.

It has been the main scheme aimed primarily at residential buildings since 2014. It generated 26 Mtoe of savings till 2020 and has been widely used thanks to the simplicity of the application. Its main limits are related to the fiscal capacity that the beneficiary shall have to recover the tax relief, an issue that makes its use not possible for people with economic difficulties.

The “*Superbonus*” is a tax relief scheme that has the following characteristics:

- A tax relief initially set to 110% and presently equal to 70%;
- The need to increase by at least two classes the energy performance certificate of the building through a set of needed interventions;
- Strict checks on the project application not only for the energy aspects, but also for the compliance with all existing legislation (e.g. safety, cadastre, local regulations, etc.);
- The option to transfer the tax credit to third parties (companies involved in the works or banks), giving the possibility to the beneficiaries not to anticipate the required capital expenditure.

The measure was launched to stimulate the recovery of the sector from the pandemic and it has been eventually reduced in terms of tax relief and of possibility to transfer the credit to third parties. Presently a new design of all the tax relief scheme is under consideration.

6.1.4 Conto termico

“Conto termico” is a national program that encourages energy efficiency measures and the production of thermal energy from renewable sources for small-sized systems. The beneficiaries are mainly public entities, which can apply both for energy efficiency and thermal renewable applications, but also companies and citizens, which are limited to thermal renewables (i.e. heat pumps, biomass boilers, and solar thermal).

The scheme is a grant that generally covers up to 60% of the incurred expenses, depending on the type of project, and is issued in one, two, or five rates depending on the amount of the incentive. It can be used both by end users and ESCOs.

Its usage has been growing over the years and presently a redesign to improve its availability for decarbonisation solutions is under work.

6.1.5 Transizione 4.0

“Transizione 4.0” is a national program that aims to:

- Support and incentivize companies that invest in new machinery or software for the technological and digital transformation of production processes;
- Stimulate investments in R&D and technological innovation, within the 4.0 paradigm and the circular economy;
- Support companies in the process of technological and digital transformation by creating or consolidating the skills in the enabling technologies necessary to achieve the 4.0 paradigm.

It works as a tax credit towards enterprises, presently covering from 5% to 20% of the capital expenditure (higher values for smaller projects). Being a simple scheme to apply to it has been a successful measure over the years. It can be used both by end users and ESCOs.

Later in 2024 the new Transizione 5.0 programme is expected to be launched. Energy efficiency measures should be better supported under the new scheme.

6.1.6 Fondo Nazionale per l’Efficienza Energetica

The Fondo Nazionale per l’Efficienza Energetica works either as guarantee fund or subsidized interest loan scheme and supports the implementation of measures aimed at ensuring the achievement of national energy efficiency goals.

Measures eligible deal with:

- reduction of energy consumption in industrial processes;
- creation and/or implementation of district heating and district cooling networks and systems;
- efficiency improvement of public services and infrastructures, including public lighting;
- energy requalification of buildings.

The fund can be used both by end users and ESCOs. It is presently under redesign since it is the only national scheme for energy efficiency that has never performed well.

6.2 Other funding opportunities

6.2.1 Energy Performance Contract (EPC)

Whereas EPC are not an incentive, the possibility to offer guaranteed energy savings to end-users together with third party financing has proven a valuable option in many cases, also because practically all national schemes allow ESCOs to be the beneficiaries of the incentives in place of the end-users (by mutual agreement obviously).

EPC has been in place since the nineties, however its usage has grown over the years thanks both to the evolution of the legislation for public tenders, which presently encourages EPC both as PPP or traditional procurement contracts, and to a progressive diffusion in the private sector. The role of one-stop-shops like AESS (www.aessenergy.it) or IRE Liguria (www.ireliguria.it) has added an additional push to EPC, especially in the public sector.

Also the programmes offered by CONSIP, the Italian central procurement agency, offers guaranteed energy services, even if not always EPC, that produced over 0.5 Mtoe of energy savings over the years.

6.3 Measures available from National Energy and Climate Plan

Horizon Europe is the EU's main funding programme for research and innovation with a budget of EUR 95.5 billion over the period 2021-2027. Compared to previous research support programmes, Horizon Europe brings with it significant novelties, including the establishment of the European Innovation Council, to support breakthrough innovations throughout the lifecycle, from early-stage research, technology transfer, financing, to the growth of start-ups and SMEs.

The following are additional policies and instruments put in place by Italy and already implemented in the field of research:

- Capital goods ('New Sabatini'): measure aimed at facilitating companies' access to credit and increasing the competitiveness of the production system. The measure supports investments to purchase, including leasing, machinery, equipment, plant, productive capital goods and hardware, as well as software and digital technologies. The 2020 Budget Law provided for the allocation of a specific financial envelope within the resources for low environmental impact investments by SMEs;
- National Innovation Fund: the measure, with a budget provided for by the 2019 Budget Law of approximately EUR 1 billion is intended to pool and multiply public and private resources dedicated to the strategic theme of innovation (artificial intelligence, new materials, health, agritech and foodtech, mobility, fintech, made in Italy, design and sustainable industry). The intervention instrument is venture capital, i.e. direct and indirect investments in qualified minorities in the capital of innovative companies with generalist, vertical or fund-of-funds, supporting start-ups, scaleups and innovative SMEs;

7. Poland

7.1 National funding opportunities

7.1.1 National Fund for Environmental Protection and Water Management

The National Fund for Environmental Protection and Water Management (NFEP&WM), established in 1989 as a result of the regime transformation in Poland, in cooperation with voivodeship funds for environmental protection and water management, is the pillar of the Polish system of financing environmental protection. The basis of the National Fund's operation as a State legal person is the Act on Environmental Protection Law (<https://www.gov.pl/web/nfosigw-en/about-us>).

National Fund for Environmental Protection and Water Management for over 34 years has been initiating and supporting activities dedicated to the environment and energy transformation. National Fund finances and co-finances pro-ecological projects. The support from NFEP&WM is useful for entrepreneurs, local governments, and state administration, as well as universities, NGOs and private individuals. For years National Fund for Environmental Protection and Water Management has been the leader in the process of implementing programs improving the climate and quality of life in Poland.

National Fund for Environmental Protection and Water Management's activities for period 2021-2024, are directed towards the implementation of tasks related to the climate change process and the fight against air pollution. Currently, the overarching goal - not only for Poland, but also for the entire European Union - is to pursue climate-neutral economy, that is based on the limited use of fossil fuels and the increase use of alternative, renewable energy sources and heat, as well as energy efficiency and circular economy - all at the level of households, enterprises and regions.

The National Fund, in cooperation with the Ministry of Development and Infrastructure and with the Ministry of Economy, is an executor of the 'Polish national advisory support system for private, public and residential sectors in the field of the efficient energy use and RES'. In the field of efficient energy use, the National Fund has also launched the E-KUMULATOR programme, addressed

to entrepreneurs. The programme's budget is PLN 1 billion, which is the highest budget in the history of the National Fund.

7.1.2 White certificates scheme

In Poland, the system of [energy efficiency certificates](#), the so-called white certificates, is based on the provisions of the Energy Efficiency Act of 20 May 2016 (Journal of Laws of 2016, item 831). The mechanism allows to receive additional funds for the implementation of energy efficiency upgrades resulting in energy savings. Any entity can benefit from this support, provided that it meets the conditions set out in the Energy Efficiency Act, conducts an energy efficiency audit and passes a positive assessment of the application by the President of the Energy Regulatory Office (ERO).

Projects aimed at improving energy efficiency, in accordance with the Announcement of the Minister of Climate and Environment on the detailed list of projects aimed at improving energy efficiency, e.g. insulation of industrial installations, renovation and thermal modernization of buildings, recovery of energy from industrial processes.

White certificates, however, are mainly used for large enterprises.

The amount of support depends on the amount of energy to be saved. The certificates are cashed on the power exchange and can be used to finance the project.

In order to obtain certificates for sale, it is necessary to conduct an energy efficiency audit of the company and present the audit card to the President of the Energy Regulatory Office.

7.2 Measures available from National Energy and Climate Plan

Other measures are described in Polish NECP, especially in the chapter “Energy support measures, including grants - national and non-national measures”⁶.

Under the existing Investment Plan for Europe, over EUR 3.7 billion has been allocated for investments in Poland worth nearly EUR 18.6 billion. The funding area consists of low-carbon infrastructure, R&D, SMEs and competence building.

Last available data (March 2022) shows that 65 projects financed by the European Investment Bank (EIB) with European Fund for Strategic Investments backing were approved in Poland. On the Investment Plan website (https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/economy-works-people/investment-plan-results/investment-plan-poland_en) there are some case studies.

7.2.1.1 Example

An interesting example is a Polish SME which has developed software that enables people to sign contracts and documents of any type online. The company’s platform allows companies to send out a request for a signature, collect signatures and archive the documentation without registration and logins. This removes the need to print, sign, scan and send the original document, saving time and waste. To upgrade its software and provide stronger data security, this SME secured a private equity investment from venture capital firm Innovation Nest, backed by the Investment Plan for Europe. The financing also helped the business to set up the infrastructure necessary to deal with larger clients like customer support units, and to hire new developers.

⁶ https://energy.ec.europa.eu/system/files/2020-08/pl_final_necp_part_1_3_en_0.pdf

8. References

Additional information on Member States energy efficiency policies are available on the following websites:

- <https://energysavingpolicies.eu/countries/>
- <https://www.measures.odyssee-mure.eu/policy-mapper-efficiency-tool.html>
- https://energy.ec.europa.eu/news/commission-publishes-recommendation-energy-efficiency-financing-under-new-directive-2023-12-18_en

Additional references for the countries monitored under DEESME 2050 are available herein.

8.1 Bulgaria

- <https://www.bgeef.com/bg/>
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8.2 France

- <https://agirpoulatransition.ademe.fr/entreprises/aides-financieres/2023/tremplin-transition-ecologique-pme>
- <https://www.bpifrance.fr/catalogue-offres/pret-economies-denergie-pee>
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- <https://www.prorefei.org/>

8.3 Italy

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- <https://www.efficienzaenergetica.enea.it/detrazioni-fiscali.html>
- <https://www.invitalia.it>
- www.mimit.gov.it/index.php/it/pnrr/progetti-pnrr/pnrr-transizione-4-0

8.4 Poland

- <https://www.nowoczesnagospodarka.gov.pl/strony/dowiedz-sie-wiecej-o-programie/nabory-wnioskow/>
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- <https://www.gov.pl/web/klimat/system-zobowiazujacy-do-efektywnosci-energetycznej-inaczej-zwany-bialymi-certyfikatami>
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