

ENERGY EFFICIENCY MARKET ARCHITECTURE & POLICY FRAMEWORK: THE SPANISH CASE

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SUMMARY

This briefing note provides the Spanish context on the path towards an environmentally sustainable economy and specifically in the field of energy efficiency. The Spanish energy efficiency market framework and the policy architecture are briefly presented in order to highlight the main aspects that promote the financing of sustainable investments in the country. Several aspects have come together to generate a favourable climate for investment in energy efficiency; public aid lines, the volatility of energy prices, concern about the climate crisis, and the need to reduce energy dependence on foreign countries, among other aspects, support the growth of this sector at the national level.

KEYWORDS

Sustainable Finance, Regulatory Framework, Financial Incentives, Building Sector, sustainable mobility, COVID-19 impact, Spain

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1 Introduction

This document aims to provide an overview of the energy efficiency market in Spain, its regulatory forces, its market architecture, and current trends. The findings presented in this briefing note have been drawn from the various tasks carried out during the two and a half years of the Triple-A project.

All the available information can be found through the [Standardised Triple-A Tools & Triple-A Database on Energy Efficiency Financing](#), and the [Results](#) section that are made publicly available through the Triple-A website.

The energy efficiency sector in Spain has been revolutionised in recent years from a position of irrelevance within the energy sector to one of the central axes of national climate policy.

A high level of energy efficiency is essential if we intend to maintain the standard of living associated with our current energy consumption, without further contributing to the worsening of the climate crisis. Energy efficiency is also an essential ally in reducing external energy dependence in Europe, a problem that has proved pressing at the start of 2022, with Russia's invasion of Ukraine.

The Spanish public authorities have begun to understand this situation and are making extensive efforts to take advantage of Spain's potential for sustainable investment.

2 PNIEC

Following the 2015 Paris Agreements and the various programmes and initiatives stemming from the EU's adoption of these agreements, each member state was required to draw up a specific plan covering climate action in the period 2021-2030.

In addition, member states are required to submit progress reports every two years and updates of the plan every 5 years.

In the Spanish case this was defined in the [PNIEC](#)¹, the final version was approved in March 2021, and it will cover the period from 2021 to 2030 in terms of climate action for Spain.

The main objectives of the PNIEC are:

- A 23% reduction in greenhouse gas (GHG) emissions compared to 1990 scenario.
- Increase to 42% of renewables in the final use of energy.
- Improvement of energy efficiency by 39.5%.
- Increase up to 74% of renewable energy in electricity generation.
- Achieve 15% electricity interconnection with the rest of Europe

In addition, it is foreseen that, through the promotion of other activities such as self-consumption, distributed generation, demand management, local energy communities, etc. It is expected to increase opportunities and involve new stakeholders in the energy sector.

The ultimate goal, and the one on which each of the previously defined specific objectives is focused, is that Spain should have a carbon-neutral economy by 2050.

3 ERESSE

The "Long-term Strategy for Energy Rehabilitation in the Building Sector in Spain"² is a plan to improve the energy efficiency of Spanish buildings in the long term.

Taking into account that almost 50 % of EU final energy consumption is used for heating and cooling, of which 80 % is used in buildings³, the achievement of the EU energy and climate goals is linked to the Union's efforts to renovate its building stock by giving priority to energy efficiency.

¹ PNIEC: Plan Nacional Integrado de Energía y Clima

² ERESSE: Estrategia a largo plazo para la rehabilitación en el sector de la edificación en España

³ DIRECTIVE (EU) 2018/844 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018

The measurement of the results is done based on the percentage reduction in consumption over the 2020 scenario. The cumulative target for the residential sector in the period 2020-2050 is equivalent to a reduction of 37.3% compared to consumption in 2020. The savings accumulate significantly in the first part of the period, with 41.1% of the total savings occurring between 2020 and 2030, 34.1% between 2030 and 2040 and, finally, 24.8% between 2040 and 2050.

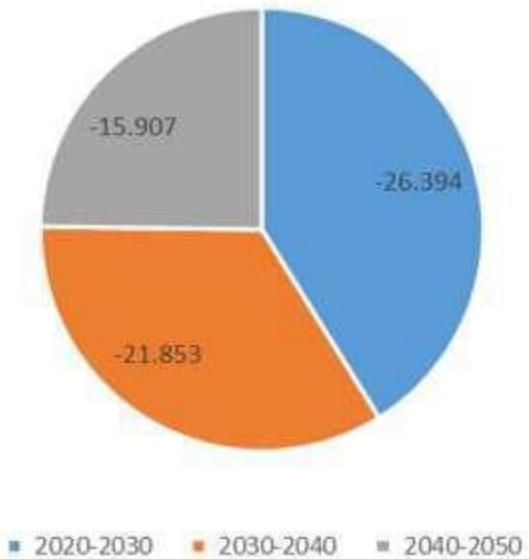


Figure 1: Residential sector planned savings over decades (GWh)

SOURCE: ERESSE 2020 Update³

The final energy consumption target for the tertiary sector established for 2050 is equivalent to a reduction of 36% compared to consumption in 2020, the fall in consumption is intense in the first and, especially, the second decade, with 36% occurring between 2020 and 2030 (-17 069 GWh), 49% between 2030 and 2040 (-23.085 GWh) and, finally, 15% between 2040 and 2050.

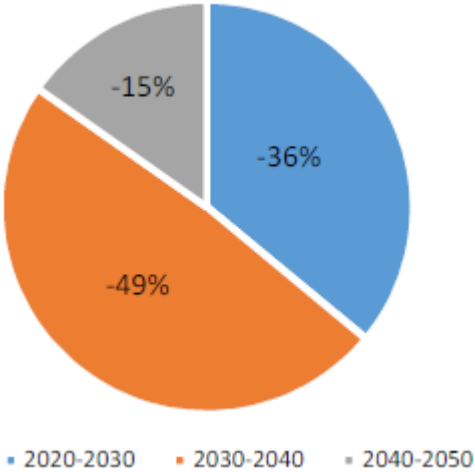


Figure 2: Tertiary sector planned savings over decades (% over the total savings)

SOURCE: ERESSE 2020 Update³

This national planning demonstrates the commitment to the energy efficiency sector as one of the pillars in the response to the climate crisis. In addition, the economic impact generated by the large number of investments to be made in this field and the subsequent economic savings to be received by end users is expected to act as a major driver of the economy.

4 Financing Incentives

Flowing from the PNIEC, more specific programmes are being launched in order to achieve a higher level of energy efficiency in specific sectors.

In the case of **sustainable mobility**, it is worth mentioning the MOVES programme⁴, these will finance the purchase of electric and plug-in hybrid vehicles such as cars, vans, or motorbikes, as well as the purchase and installation of public and private access, charging infrastructures. The MOVES, which together consist of 4 different programmes targeting different sustainable mobility objectives, are financed with up to 850 million euros.

⁴ MOVES Programme

The **building sector**, which, as was mentioned before, due to its overall volume of energy consumption has a significant impact on the average energy efficiency level in Spain. The PREE programme⁵ have recently been started; these grants are intended to partially cover investments in the energy renovation of buildings. These aids are arranged along two lines, one more generic and the other aimed specifically at directing funding to areas considered to be of "demographic challenge", that is, highly depopulated areas with no industry or strong economic activities. Altogether, they have 350 million euros in funding.

The Ministry for Ecological Transition and the Demographic Challenge (MITECO) has opened two calls for pilot projects for **energy communities**, with a budget of 40 million euros, which will promote social innovation and citizen participation in renewables, energy efficiency, and electric mobility. These are two of the first calls for proposals under the "Strategic Project for the Recovery and Economic Transformation of Renewable Energies, Renewable Hydrogen and Storage" (PERTE ERHA) and are expected to enable the implementation of around 40 renewable energy, electric mobility, and demand-side management projects for local communities.

The current Spanish government's approach is to combine environmentally sustainable energy initiatives with the **fight against rural depopulation** and other demographic challenges. In this way, several programmes have been developed to promote environmentally sustainable investments in areas considered to be of "demographic challenge".

This is the case of the DUS 5000 programme with a fund of 75 million euros. This aid may cover up to 85% of the necessary investment in projects promoted by town councils and other public bodies in municipalities with less than 5,000 inhabitants. Subsidies will be granted for projects aimed at improving energy efficiency in

public buildings and infrastructures, promoting green investments -in particular self-consumption-, or charging infrastructures for EVs, among others.

5 Covid-19 Impact on Spanish economy & climate actions

As was the case for most of the countries, the impact of the Covid-19 pandemic on Spanish society was sudden and paralysed the economy overnight.

The first months of full lockdown delayed the publication and implementation of many of the national and regional climate action plans emanating from the Paris Agreements.

However, the situation was reversed from the summer of 2020 onwards when the situation stabilised. Furthermore, the funds raised by Europe to combat the negative impacts of the pandemic, which is considered to be the largest European aid package ever approved, have been partly directed towards transforming the economy into a more environmentally sustainable one.

The effects of the implementation of these measures are yet to be felt, but given their ambitious scope and intense funding, it is expected that they will progressively put the Spanish economy on a sustainable path.

The reduction in emissions and other impacts related to the economic shutdown caused by the pandemic throughout 2020 has proved to be an illusion with the first data on environmental impacts related to the economic recovery in 2021.

⁵ PREE Programme: Programa de Rehabilitación Energética de Edificios

TRIPLE-A IN BRIEF

Triple-A -Enhancing at an Early Stage the Investment Value Chain of Energy Efficiency Projects - is an EU-funded research project under the Horizon 2020 programme, aiming to assist financial institutions increase their deployment of capital in energy efficiency, making investments more transparent.

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Conclusions

The main conclusions drawn about the national architecture of the energy efficiency market in Spain are detailed below:

- Spain has **great potential to develop investments** in sustainability.
- Energy efficiency has rapidly become a **top priority** both in climate action and in reducing external energy dependence.
- The **objectives** of the different administrative levels (EU, national, regional, and municipal) **are aligned**, and initiatives are being implemented at all levels.
- At the Spanish level, **highly ambitious goals** have been set, but they are backed by massive funding lines and strong support from the public sector.

A further comparison between the participating Triple-A countries is provided in the European Synthesis paper⁶, while the Spanish Synthesis paper⁷ details the regulation, market architecture, and policy framework applicable to the identified cases.

⁶<https://aaa-h2020.eu/sites/default/files/reports/D6.4%20Triple-A%20European%20Synthesis%20Paper.pdf>

⁷<https://aaa-h2020.eu/sites/default/files/reports/D6.3%20Triple-A%20Synthesis%20Paper%20for%20each%20case%20study.pdf>