



meetMED Mitigation Enabling Energy Transition in the MEDiterranean region
Together We Switch to Clean Energy

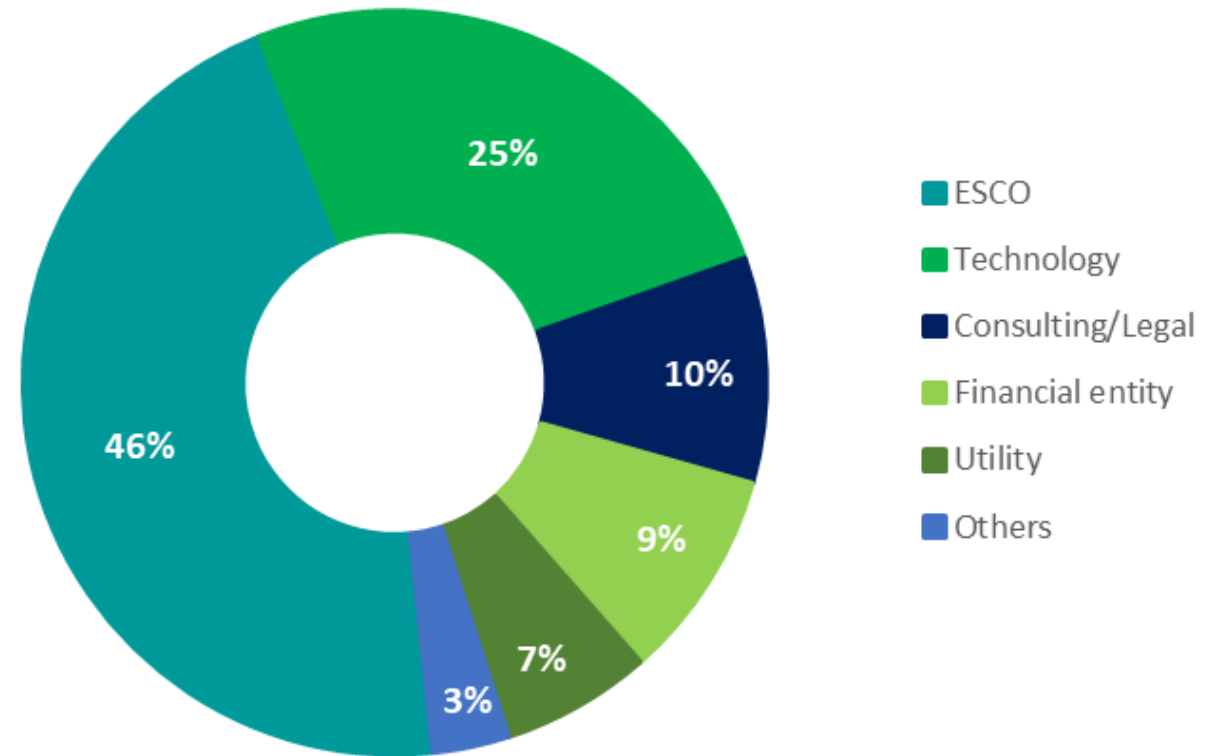
ESCO model and Spanish ESCO market





Who is ANESE?

ANESE is the National Association of Energy Services Companies in Spain, we have more than 10 years of experience since our creation and currently we are more than 150 memberships. It is a non-profit organization that aims to structure the ESCO market.



Our Memberships



Gold



Silver



Bronze

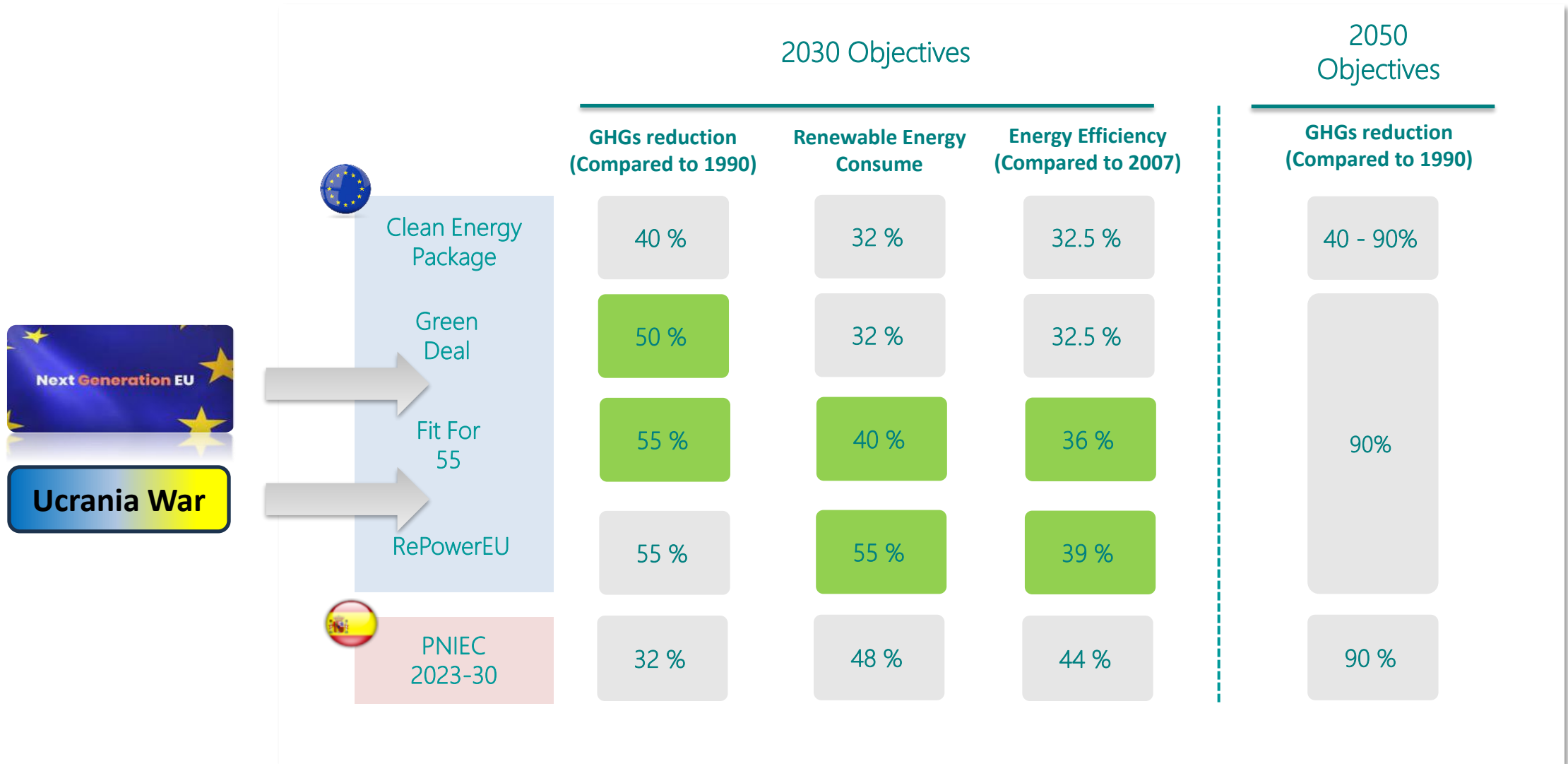


Number





Energy targets - Context



New Consolidated EU Energy Efficiency Directive 2023/1791

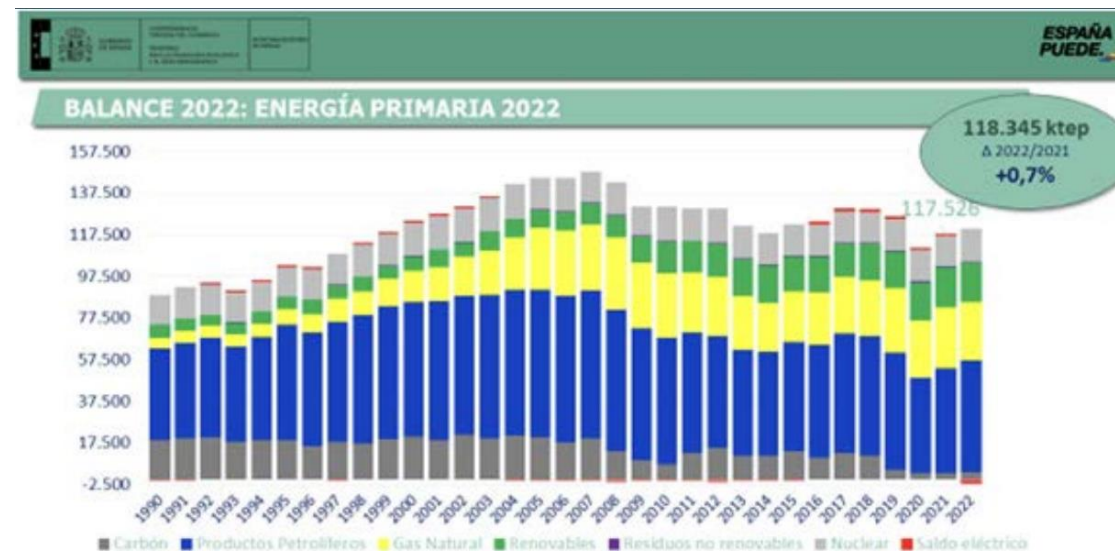
The new consolidated Energy Efficiency Directive was published in September 2023, introducing a number of measures to help accelerate energy efficiency, including the adoption of the 'energy efficiency first' principle in energy and non-energy policies. The regulatory review procedure started with the European Commission's proposal in the framework of the 'Fit for 55' package and was complemented by the additional proposal of the REPowerEU plan. The legislation contains several provisions aimed at accelerating Member States' energy efficiency efforts, the most relevant of which include the following points:

- **New savings targets:** Reduce EU-wide final energy consumption by 11.7% in 2030 compared to 2020 levels (EU final and primary energy consumption in 2030 of 763 and 992.5 Mtoe respectively).
- **Exemplary role of the public sector:** Reduction of total final energy consumption of all public bodies by at least 1.9% each year compared to 2021.
- **Boosting energy services:** Promote the energy services market, in particular, encourage the use of EPC contracts for renovating large buildings by Public Administrations (buildings > 750 m² and social purposes).
- **Create an appropriate framework for EPC contracts** through financial instruments, listing of qualified/certified service providers, M&V methods and tools, quality labels, contact points, facilitators and advice, as well as by removing barriers to market development.
- **New criteria for mandatory energy management systems and energy audits based on energy consumption:** Companies with average annual consumption > 10TJ: will be subject to an energy audit (October 2027). Companies with average annual consumption > 85TJ: will apply an energy management system (October 2027).



Spanish Strategic Energy and Climate Framework

- Different governance tools were developed to achieved the decarbonisation targets:
 - ✓ PNIEC 2021-2030: short- and medium-term roadmap and targets reviewed every 5 years.
 - ✓ ELP 2050: long-term roadmap and targets reviewed every 5 years (on the basis of the PNIEC update).
 - ✓ Energy and Climate Act - stable long-term policy framework.
- Setting new goals and policies:
 - Development of the Contingency Plan + RDL 14/22 (urgent measures).
 - PNIEC 2023 publication.



Spain's recovery and resilience plan

4 transversal axes

- **Ecological Transition**, a Green Spain (37% BDGT)
- **Digital Transformation**, a Digital Spain (33% BDGT)
- **Gender equality**, Spain, a country without gender gaps.
- **Social and Territorial Cohesion**, a cohesive and inclusive Spain



- **140 €Bn Budget allocation**
- 72 €Bn in grants.
- 68 €Bn in loans.



- **Regional Administrations** (Autonomous Communities and Local Authorities) managed +50% of recovery funds.



- Focus on public-private partnerships, through various financial instruments.
- Implementation through an inclusive governance structure.

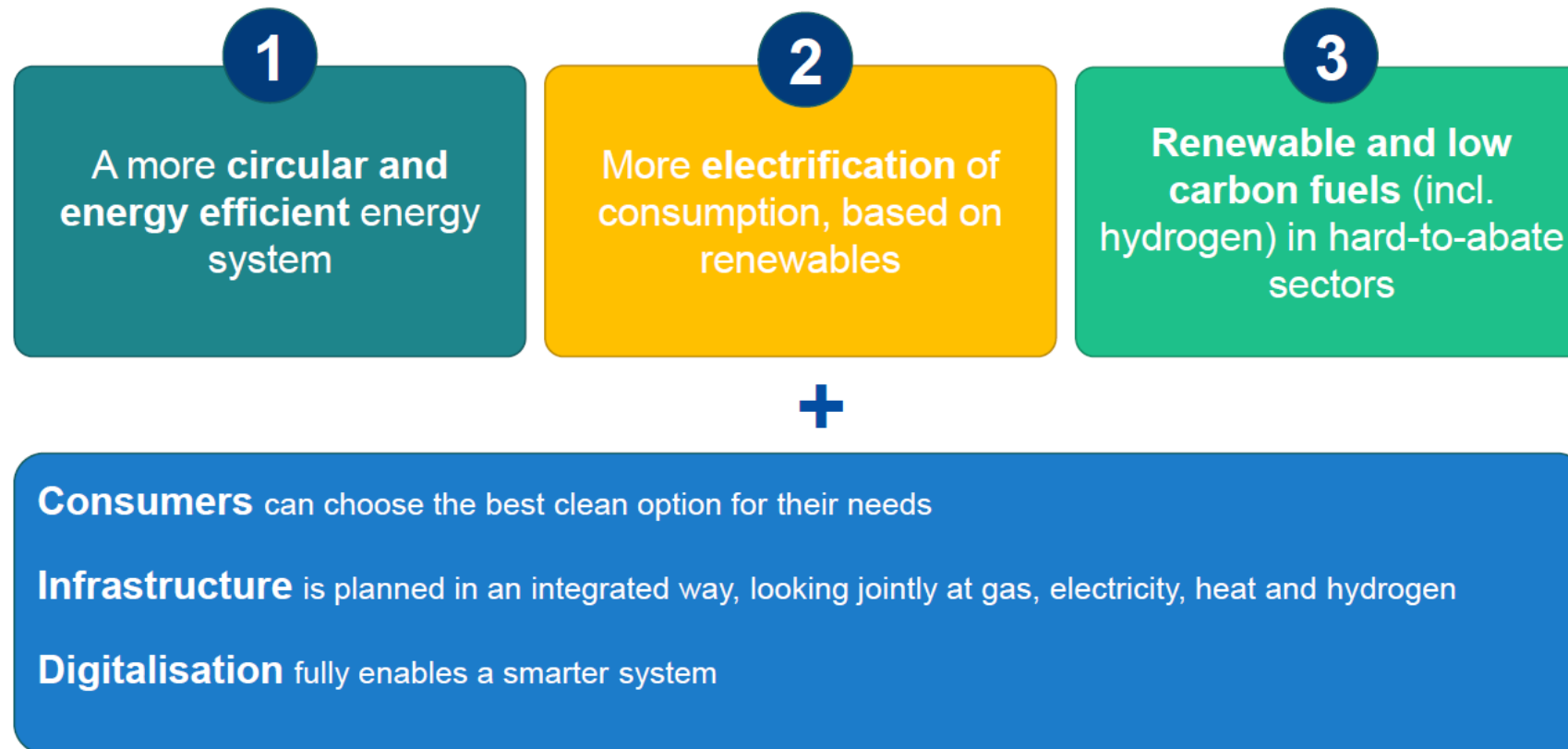
Leverage policies (b€)

1	Urban and Rural Agenda	22
2	Resilient infrastructures and ecosystems	17
3	A just and inclusive energy transition	12
4	An administration for the 21st century	7
5	Modernisation and digitisation of the industry	24
6	Pledge for science and innovation	23
7	Education and knowledge	25
8	The new care economy and employment policies	8
9	Promotion of the culture and sports industries	2
10	Modernisation of the tax system	-
Total EU Funds 2021-2026 to Spain		140

Spain

An Addendum has recently been published that proposes a budget increase, which will allow the mobilisation of up to 163 billion euros (20 billion euros additional to the original proposal) in the period 2021-2026, where 83 billion euros will be granted in loans and 80 billion euros in direct transfers. The new PRTR planning includes a new chapter dedicated exclusively to the financing of actions under the RepowerEU initiative, with around €7.7 billion in funding.

The Energy System Integration Strategy





2021 Observatorio de Eficiencia Energética

El mercado de las Empresas de Servicios Energéticos



3rd edition (2017, 2019, 2021)⁽¹⁾



Market data from 2015 to 2020 has been analyzed.



The last edition had the participation of 44 ESCOs from Spain and Portugal.



General information

Energy Savings

37%
average per project

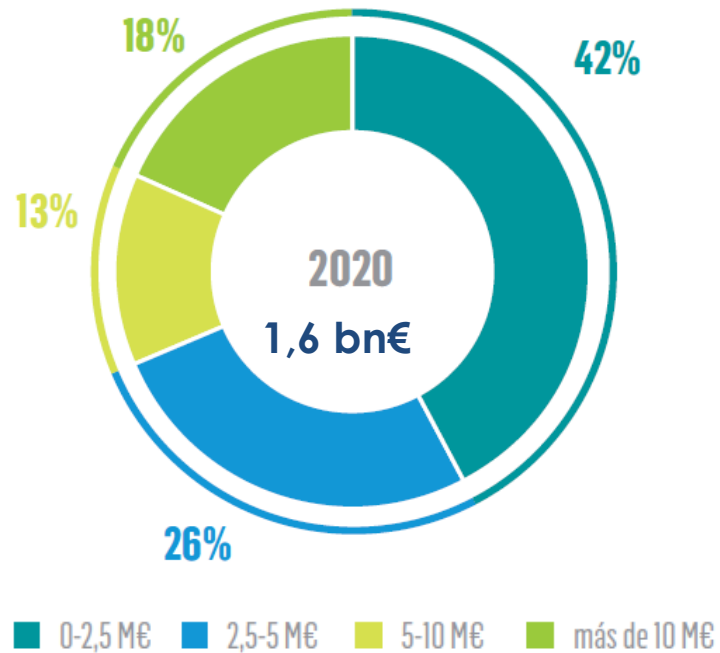
Emissions Reduction

45.4 Tn CO2
average per project

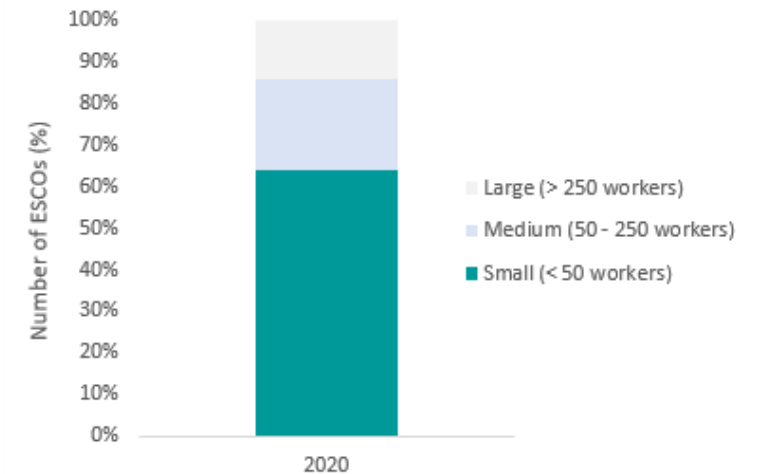
Budgetary project

706,971 €
average per project

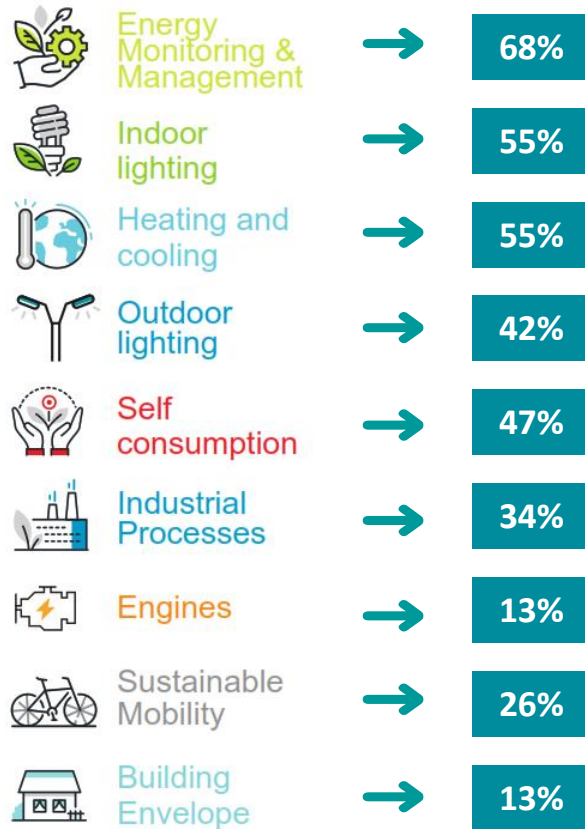
ESCOs CAPEX



ESCOs size



Implemented technologies



Scope of activity

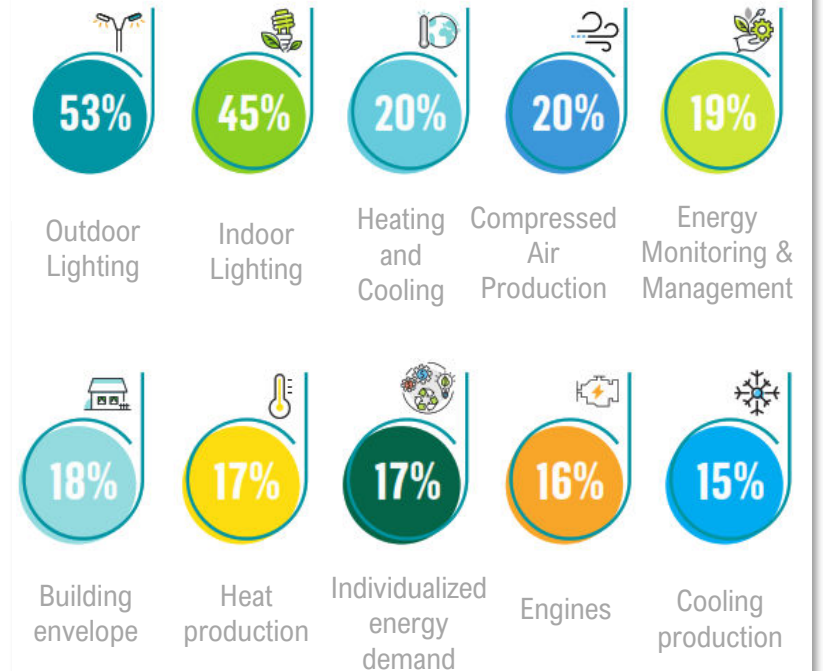
Public
13%
Private
34%
Public
+
Private
53%



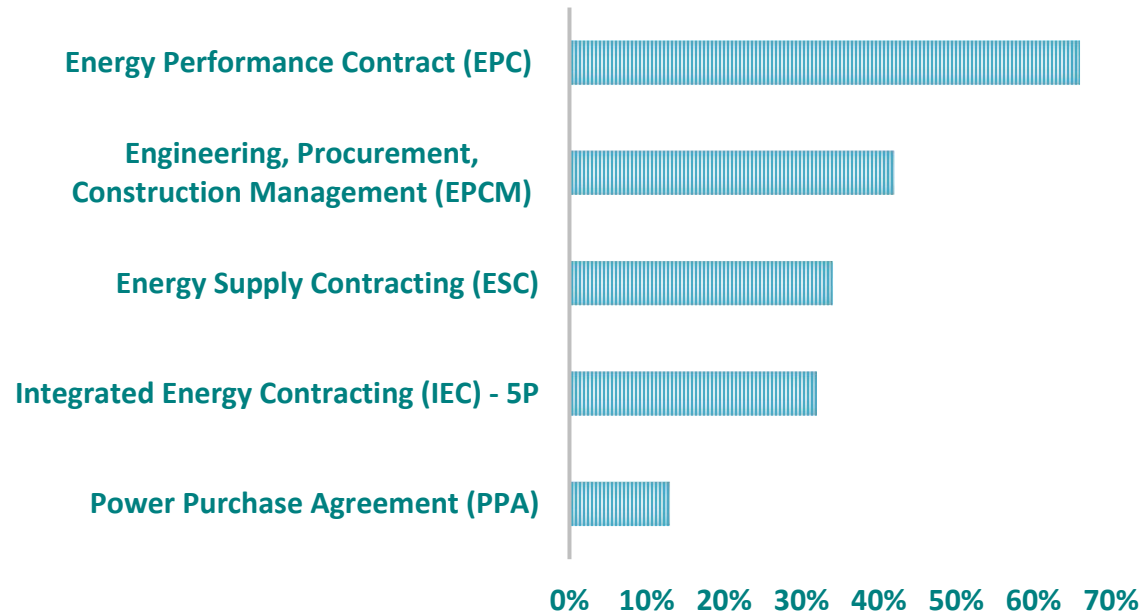
2020

Savings

(per Technology Application)



Type of contracts



- The **Energy Performance contract (EPC)** are the **dominant form** of ESCOs contracts. Specifically those in which ESCO make the investment and guarantee savings.
- Contract maturity period (months)

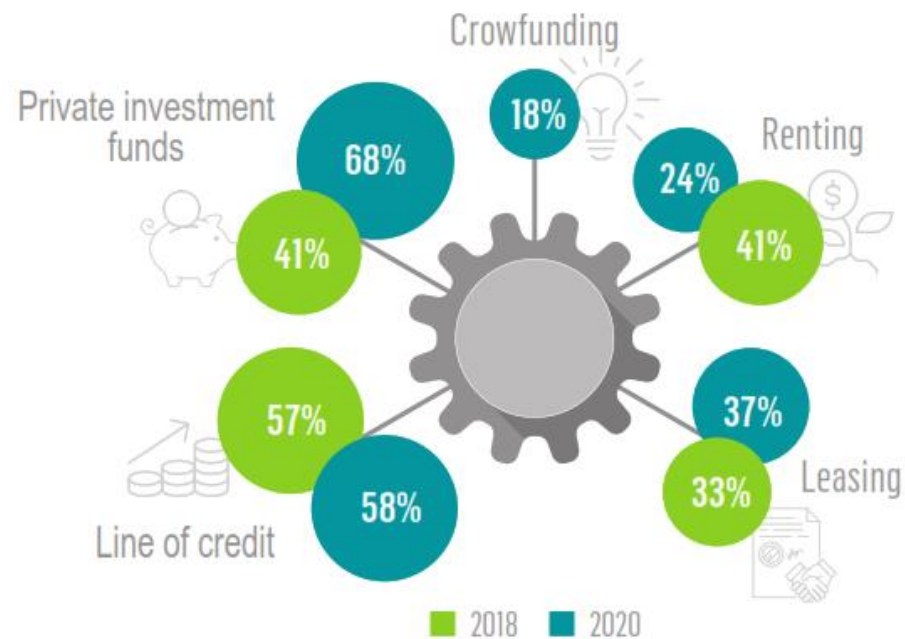


- Duration of the energy services contract: **The total average is 8 years** (7 years private sector/10 years public sector)

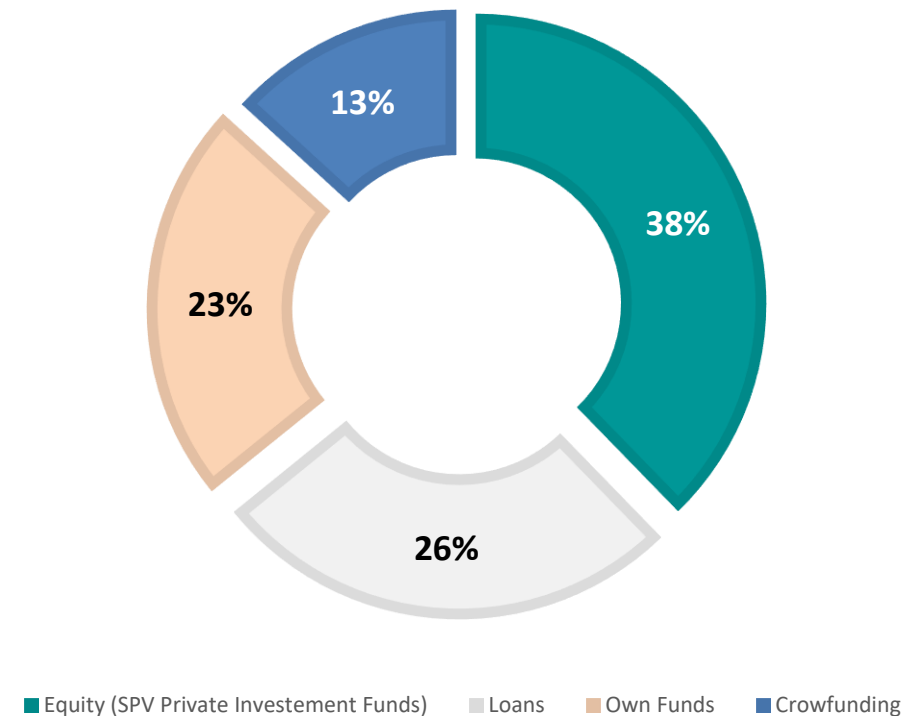
Financial Mechanisms

- 80% of ESCOs used their own funds and 58% used external financial mechanisms to finance projects.
- 80% of the projects are carried out without grants.

*Financial Mechanism
(Energy Efficiency observatory)*



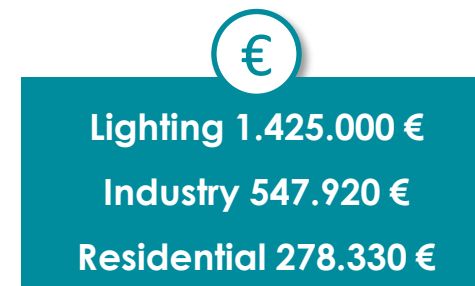
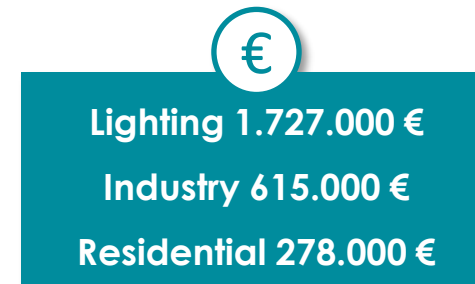
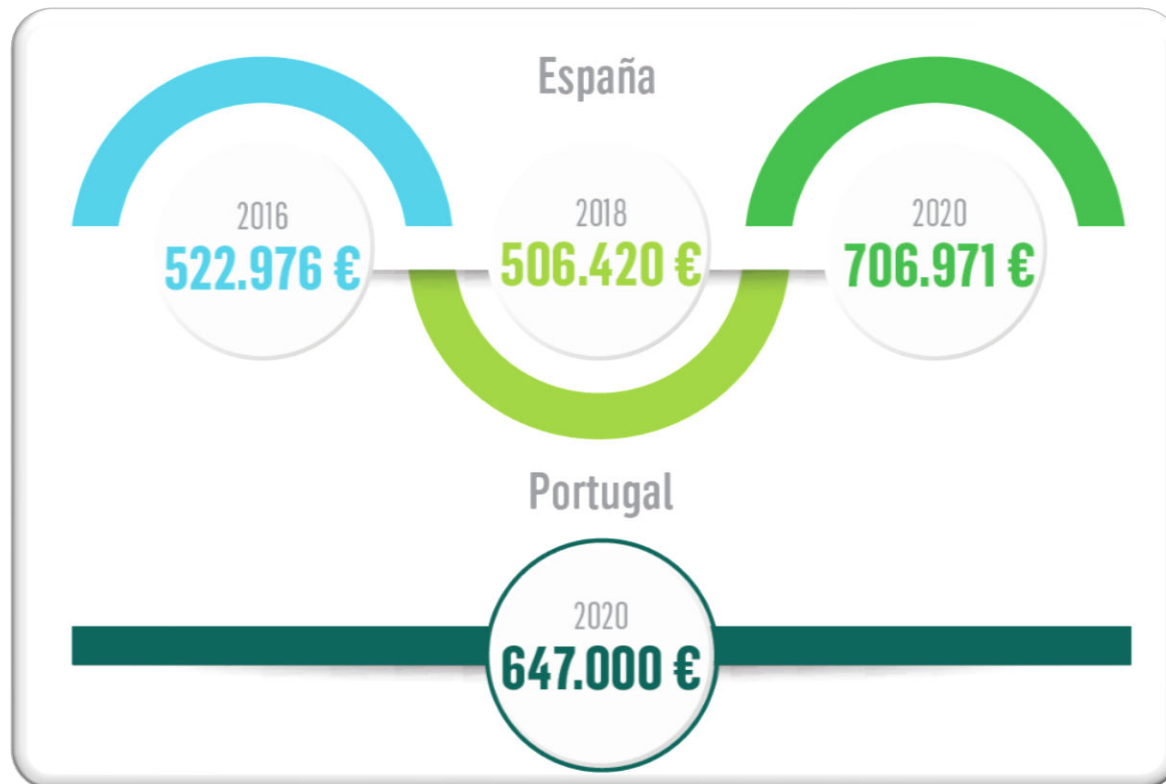
*Financing Energy Efficiency using
Private Investment (H2020)*



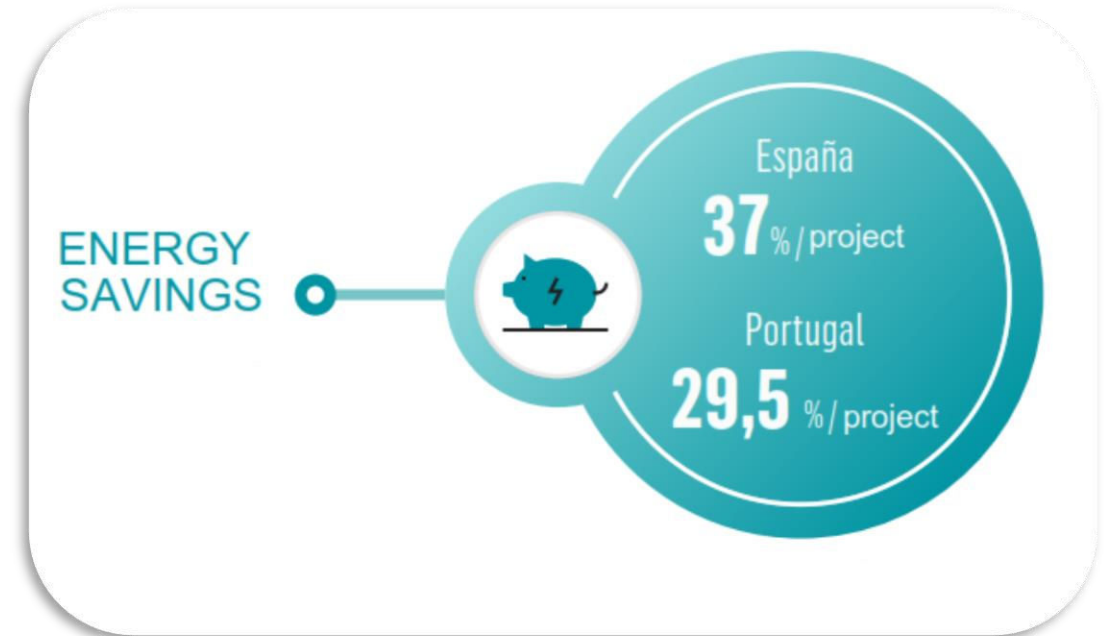
Comparative Spain/Portugal – Project budget



- The average Project Budget in Spain increases year by year.
- Portuguese ESCOs present an average project budget similar to Spain.



- Annual electricity savings:
 - ✓ **225,000 kWh/project - Spain**
 - ✓ **250,010 kWh/project - Portugal**
- Annual thermal energy savings
 - ✓ **72,000 kWh/project - Spain**
 - ✓ **343,753 kWh/Project - Portugal**



2020 – Opportunities and barriers



Opportunities for ESCO

Opportunities for the client

Barriers

1st

Customer portfolio loyalty

Energy savings

Lack of knowledge of the ESCO model – client side.

2nd

Economic stability with recurring income

The customer does not make the final investment

Lack of governmental support

3rd

Technological advances

Renovation of facilities

Lack of citizen awareness

4th

Catalyst for new projects

Technology confidence

Low trend towards outsourcing energy management

5th

Governmental support

Raising of social awareness of the environment

Duration and complexity of the energy services contracts (lack of knowledge)

Barriers

1st

Lack of knowledge of the ESCO model – client side.

Uncertainty of whether investment will generate sufficient revenues to payback the financing

Mitigation

- Standardized Measurement and Verification Protocols.
- Need for further ESCO model dissemination

2nd

Lack of governmental support

Many help and subsidy programs do not include ESCOs as direct beneficiary.

Mitigation

- ANESE is lobbying to reverse this situation.
- The ANESE seal is a tool in helping establish the difference between ESCOs and energy services providers

3rd

Lack of citizen awareness

Citizens are not aware of the ESCO model and its advantages. There is a fragmented market where ESCOs present their models and contracts as ownership instead of focusing on the ESCO model itself.

Mitigation

- Workshops and dissemination actions on the ESCO model applied to individual clients.



ESCOs Type of contracts

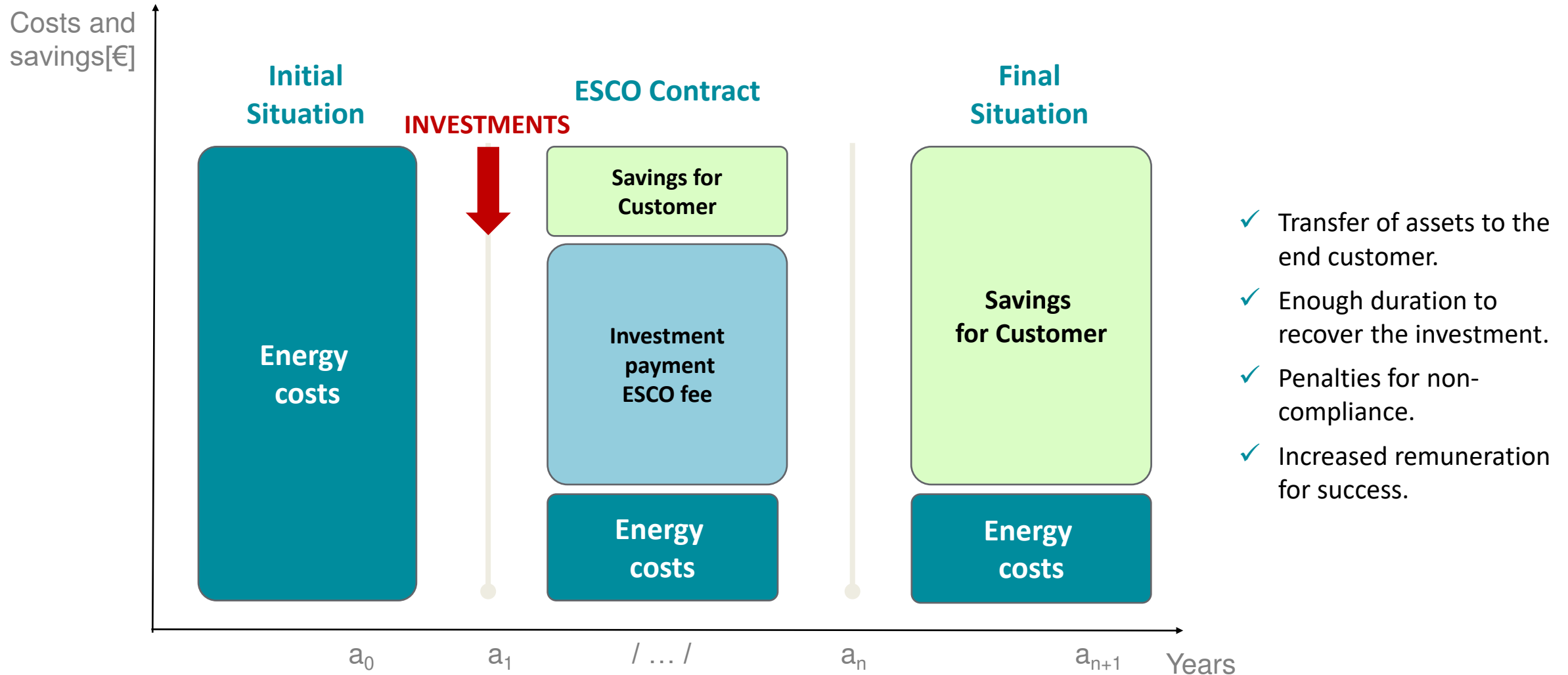
Depending on customer needs, different types of contracts can be established between ESCOs and clients.

Energy Performance Contracting (EPC) *	Savings in kWh UNE-EN 17669-2023 The investment is assumed entirely by the ESCO or the client (depends on savings model)
Energy Supply Contracting (ESC)	Savings in €/kWh ESCO is only remunerated for the useful energy output (electricity, heat, etc). The payment is not based on the energy efficiency achieved.
Power Purchase Agreement (PPA)	Often refers to a long-term electricity supply agreement (5-15 years) between two parties, usually between a power producer and a customer (an electricity consumer or trader).
Engineering, Procurement, Construction Management (EPCM)	A turnkey contract is an agreement in which the ESCO designs and implements an energy efficiency project, committing to quality levels in the commissioning of the installation, but in this case, the client-ESCO relationship ends once the installation ends.
Integrated Energy Contracting (IEC) - 6P *	Business model developed by IDAE (public sector). Services including: Energy supply, Maintenance, Full warranty, Improvement works and Improving energy efficiency.
Energy as a service	Business model where end customers pay for the energy service they receive (cooling, lighting, etc) without having to make any upfront capital investment.

* Eurostat guide (Guide to Statistical treatment of Energy Performance Contracting in Public Administration)

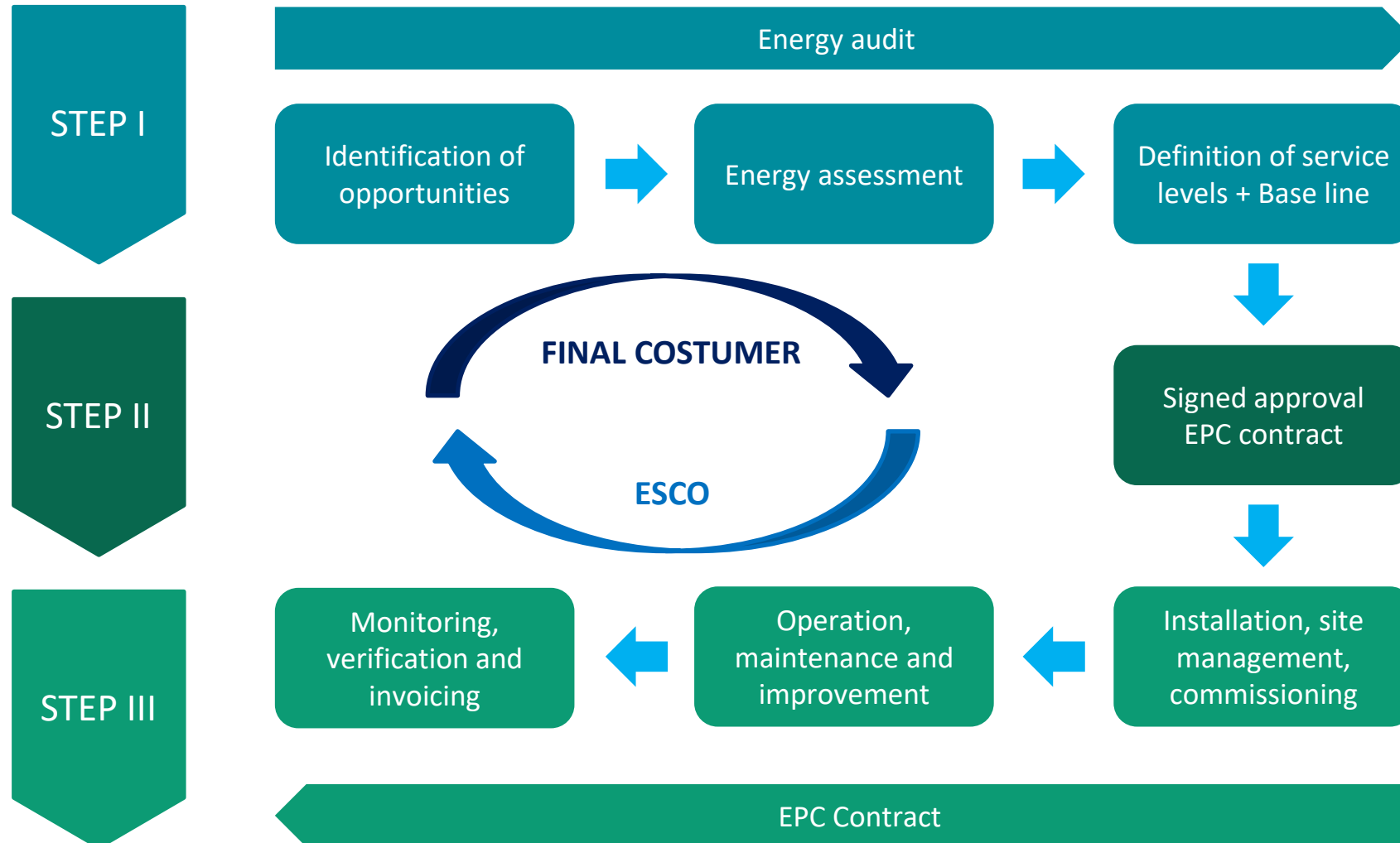
EPC contracts

According to the contract agreed between the ESCO and the Customer, the Customer can start to recover part of the savings as from the beginning of the contract, reaching the total savings at the end of the contract.









EPC contracts

The EPC contract cycle starts with an energy audit to define the energy saving measures to be implemented and to determine the savings to be generated.



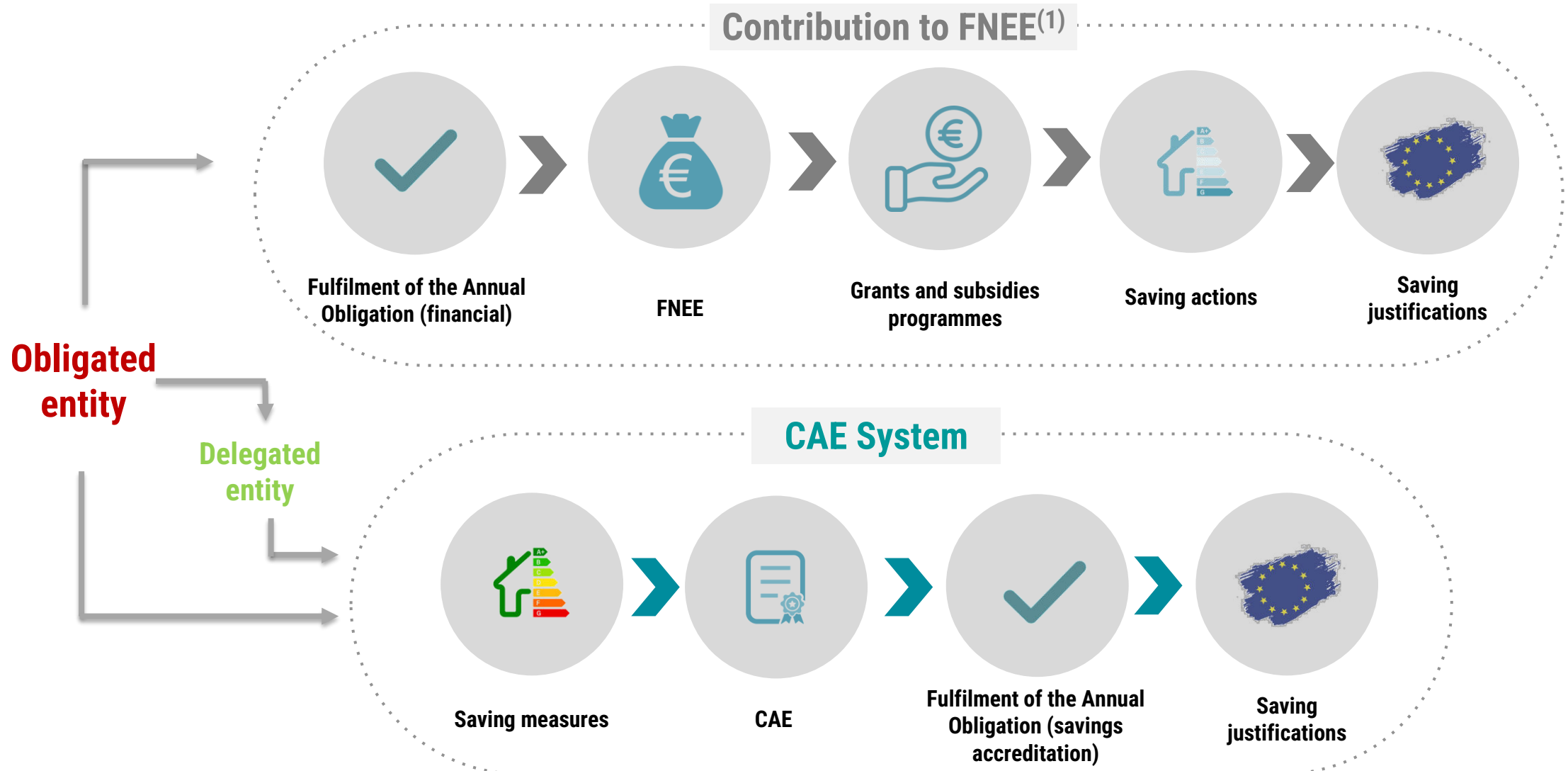
Model contracts in Spain (Public sector)

Model contract for energy services for public buildings and street lighting. The contract includes the performance of six services (6 Ps). Prepared by IDAE (Spanish Energy Agency).

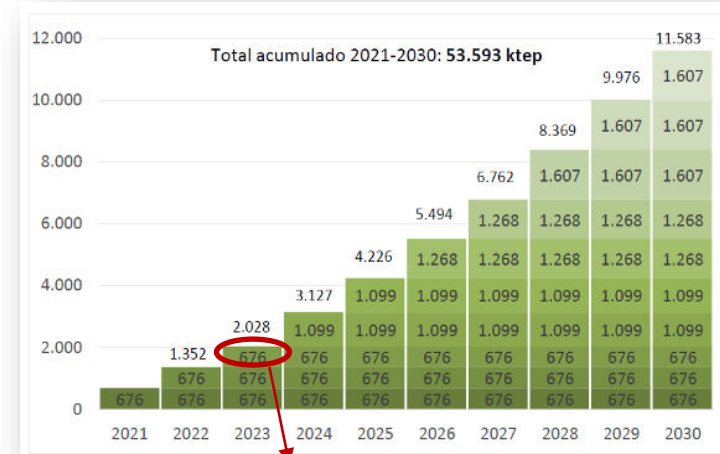
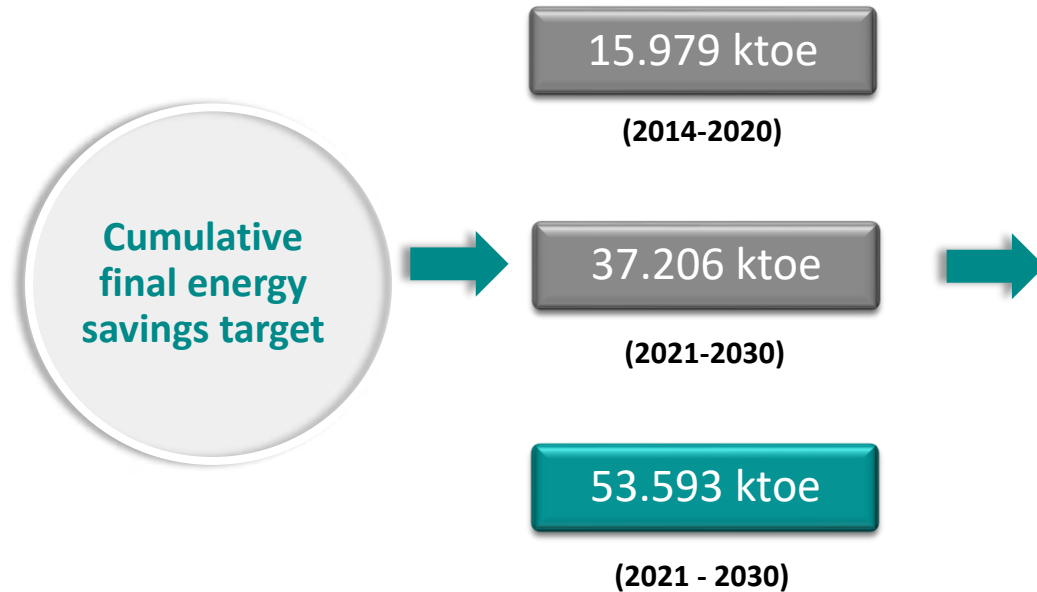
	Energy management	Management of the energy supply (or not), operation and supervision of the installation and monitoring.
	Maintenance	Performance of preventive maintenance tasks to ensure the perfect functioning and performance of installations and all their components, including their regular cleaning.
	Full guarantee	Repair or replacement of all damaged elements in the installations, for which the ESCO is obligated to take out an insurance policy or policies covering this guarantee.
	Upgrading works	Promote the improvement and renovation of installations under efficiency criteria through the incorporation of equipment and installations that promote energy saving and energy efficiency.
	Investments in renewable energies	Implementation and financing of installations for the use of renewable energies that have not been included in the actions of the P4 service.
	PRTR Investments	Investments made with funds from the Recovery, Transformation and Resilience Plan.



Energy Saving Certificates (CAE)



(1) National Energy Efficiency Fund



SNOEE 2023

Yearly final energy savings: **204 ktoe (30%)**
 Financial equivalence: **165.77 €/MWh**
 SNOEE contribution: **393 M€**

- Obligated entities may voluntarily make contributions to the FNEE by submitting CAE:
 - 2023: **40% year obligations**:
 - 1st and 2nd QTR 2023: financial contribution.
 - 3rd and 4th QTR 2023: possibility through the liquidation of CAE.
 - 2024: **65% year obligations**.
 - 2025: **80 % year obligations**.
- First 3 years of the system: CAE can be settled until 1st of March of the year following the obligation.

Thank you for your attention

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