







MULTIANNUAL STRATEGIC AND FINANCIAL PLAN 2023 | 2027

TECHNICAL SHEET

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Contents

A Message from the Board of Directors 2 Introduction 6 Institutional Mandates 8 Mission, Vision and Values 10 Trends and Challenges 14 Strategy 32 Monitoring the Strategic Plan 42 Multiannual Financial Plan 44

A MESSAGE FROM THE BOARD OF DIRECTORS

A Message from the Board of Directors

Established in 1995, ERSE is the authority responsible for regulating the electricity, natural gas, LPG, petroleum-derived fuels and biofuels sectors, as well as the management of electric mobility network operations. The recognition of its work by its national and international peers and other institutions is a source of pride for the work it has done over the years.

On the occasion of ERSE's 28th anniversary, we are pleased to present this document, which sets out the strategic lines that will guide ERSE's actions over the next five years (2023-2027). This document is a structural and important management tool for this Authority, as it has actively involved all ERSE staff since its drafting stage and has benefited from the contributions of all stakeholders who took part in the public consultation process.

The next five years will see many challenges in the regulation of the energy sector in Portugal and Europe. In 2019, the European Union redefined its commitment to climate action with the publication of the European Green Deal, which aims to achieve carbon neutrality by 2050. More recently, the European Commission adopted the "Fit for 55" legislative package, which includes measures not only for energy, but also for climate, environment, transport, industry, agriculture and sustainable finance, with the aim of decarbonising society.

Achieving carbon neutrality means transforming our energy matrix, reducing the country's external dependence on fossil fuels and integrating greater amounts of energy from renewable sources. In this important and unavoidable process of change, it is also essential to fundamentally change our consumption patterns by increasing energy efficiency and rational use. In this context, the following issues are of particular importance: the introduction of low-carbon renewable energies, with a focus on decentralisation, allowing the occupation of areas already affected by human intervention, thereby mitigating societal impacts; the development of flexible energy resources, both on the supply and demand side, to ensure an efficient coupling between production profiles characterised by the availability of renewable resources and consumption profiles, promoting reduced dependence on fossil fuels and security of supply.

The energy transition is underway and the regulation of the energy sector must adapt in all its dimensions. This means that regulation must be responsive and dynamic to the emergence of new business models and new technological solutions, while at the same time ensuring predictability and legal certainty for the players responsible for the investments needed to achieve the country's energy and environmental objectives.

One of the main challenges for regulation will be to adapt to a paradigm shift that is increasingly based on decentralised choices that may come to characterise an energy scenario driven by individual consumer choice. The local energy economy and the integration of energy carriers seem to be the trends of the coming years, and ERSE must be able to anticipate the challenges ahead, focusing its actions on principles that promote economic rationality, the sustainability of the regulated sectors and the protection of current and future consumers.

A constant concern in ERSE's work is consumer protection. This means that the energy transition must be inclusive, ensuring that consumers, especially the most vulnerable, can also benefit from new forms of energy that are cleaner, more sustainable and more affordable. Staying the course, ERSE will reinforce its commitment to good communication with consumers, promoting energy literacy in line with the times and thus helping consumers to play an effective active role in the sector and to make informed decisions according to their own situation. With greater involvement of energy consumers, ERSE will seek to be ready to adapt the regulatory framework to new players, technologies, projects, business models and innovations that make it possible to do more with less, thus facilitating access to energy for all consumers at affordable prices.

Regulatory action will thus focus on three dimensions, global, local and circular, which will be addressed holistically, in an innovative and integrative concept of the different parts that we call:

GLOCAL

Recognising that markets are a fantastic provider of economic optimisation and much needed flexibility in a system based on renewable energy sources, the strengthening of the **GLOBAL** dimension associated with the creation of the internal energy market in all its temporal dimensions - future, daily and real time - will continue to deserve the utmost regulatory attention.

The development of the **LOCAL** dimension with the empowerment of consumers, the integration of new technologies and the emergence of small-scale, proximity-based business models through simplified economic regulation will contribute significantly to discovering the potential for flexibility, at least cost, in energy end-use processes.

Finally, **CIRCULARITY**, which promotes the coupling of energy carriers and sectors of activity and between decarbonised gases and hydrogen, will be the decisive step in facilitating the decarbonisation of energy-intensive sectors and achieving an efficient, reliable and carbon-neutral society.

Finally, we would like to express our gratitude and appreciation for the excellent work carried out by the ERSE staff, in the firm belief that this will always remain our institution's greatest asset and a guarantee of strong, independent and transparent regulation.

It is therefore with conviction that we present ERSE's forward-looking priorities for improving and developing its performance over the next five years.

Lisbon, 11 August 2023

The Board of DirectorsPedro VerdelhoRicardo Loureiro

INTRODUCTION

Introduction

In accordance with its Statutes, approved by Decree-Law No 97/2002 of 12 April, last amended by Decree-Law No 76/2019 of 3 June, the Energy Services Regulatory Authority (ERSE), aims to regulate the sectors of electricity, natural gas and liquefied petroleum gas (LPG) in all its categories, namely bottled, piped or bulk LPG, of petroleum-derived fuels and biofuels, as well as the management of electric mobility network operations.

Given the predominant role of energy in today's society, and in order to respect the principles of transparency and stakeholder participation, the ERSE Board of Directors considered it appropriate to announce in advance the strategic lines of its Strategic Plan for the next 5 years (2023 to 2027). To this end, the Strategic Plan document was submitted for consultation to all stakeholders in the energy sector in Portugal between 5 April and 5 May 2023.

Although not formally a public consultation process and therefore not subject to the relevant legal procedures¹, the prior publication of the strategic lines of the Strategic Plan was intended to promote the active involvement of the various stakeholders in ERSE's actions for the next five years. At the end of the comment period, ERSE endeavoured to reflect carefully on all the contributions received, taking into account the concerns expressed in them. ERSE is grateful for the contributions received, which have enhanced the Strategic Plan, and is particularly pleased with the interest the subject has aroused in society.

This document is divided into seven chapters. Following this introductory chapter, the institutional mandates are presented in the second chapter, while the mission, vision and values of ERSE are presented in the third chapter.

The fourth chapter presents an overview of the main trends and challenges for the national and European energy sector over the next five years, and in particular for regulation, which will have a decisive influence on how ERSE pursues its mission. This identification and contextualisation made it possible to draw up ERSE's strategies, presented in the fifth chapter, for the period starting this year until 2027. The following chapter highlights the issue of monitoring a strategic plan that is intended to be dynamic and adapted to the surrounding context; finally the seventh chapter presents the multiannual financial plan for the period 2023-2027, showing the evolution of the main expenditure items planned for this period.

^{1.} In particular, the publication of a public consultation report.

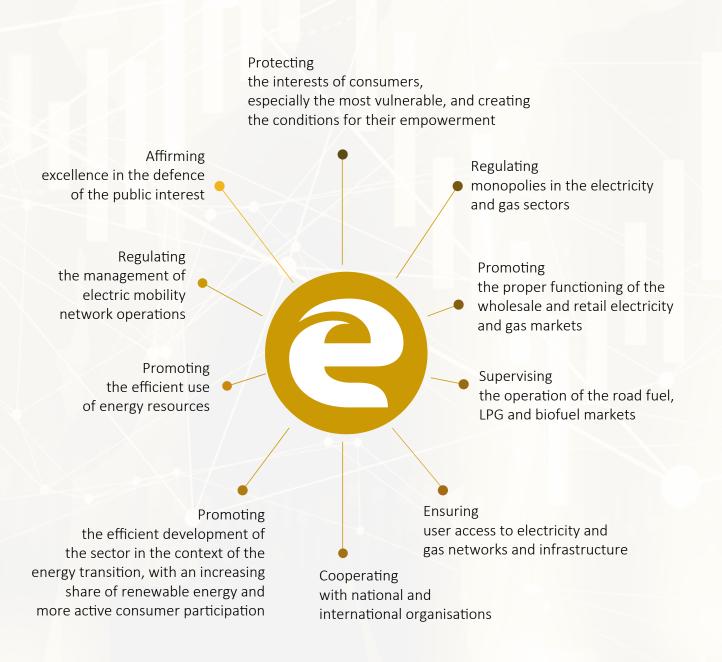


Institutional Mandates

It is extremely important to have a clear understanding of ERSE's institutional mandates, as this is the only way to define and act upon its mission, vision and values.

In the strategic planning process, ERSE identified its institutional mandates, taking into account not only formal requirements that may arise from laws, regulations, statutes, etc., but also informal requirements that may be embodied in standards or stakeholder expectations.

ERSE's institutional mandates are listed below:



MISSION, VISION AND VALUES

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Mission, Vision and Values

ERSE's mission, vision and values guide all its actions and the exercise of its functions. As such, they form the basis of the Strategic Plan.

In general terms, the mission of ERSE, which is established by law, clarifies its purpose and the reason for its existence. The vision indicates what ERSE will look like and how it will fulfil its mission.

Last but not least, the values reflect the code of conduct by which ERSE is guided in the pursuit of its mission, in accordance with the vision it has chosen, thus defining its personality as an institution.

> Mission

Regulating the energy sector in defence of current and future consumers, promoting the sustainable functioning of the sector in the context of energy transition.

>> Vision



>>> Values

In carrying out its tasks, ERSE is guided by six core values:



Transparency

We strive to convey objectively and accurately the delivery of our mission.



Independence

We act with integrity and impartiality.



Sustainability

We guarantee a balance between the present and future interests of the sector through prudent and predictable regulation.



Innovation

We ensure sound, balanced and innovative decisions, promoting openness to change in the context of the energy transition.



Cooperation

We promote a culture of collaboration, interaction and open and continuous dialogue with all stakeholders.



Excellence

We are governed by principles of efficiency and high standards of technical rigour and ethical conduct.

TRENDS AND CHALLENGES

Trends and Challenges

An institutional strategic planning exercise must necessarily take into account the main trends that characterise the context in which ERSE operates, paying particular attention to its mandates, the evolution of the energy sector and the evolution of economic regulation in the sector.

In line with best practice and international methodologies, this exercise involves identifying these trends, highlighting the strongest and most significant, and weighing up the key uncertainties. All this, while taking into account the respective degrees of probability and intensity.

Context

The background of the energy transition and its prevalence remains the same as in the previous Strategic Plan, with some aspects, such as decarbonisation or decentralisation of the energy sector, reinforcing (or increasing) its strategic relevance. However, the main change relates to the impact, also of a strategic nature, of the energy crisis that the world, and Europe in particular, experienced in 2022. This issue, the effects of which are expected to be long-lasting, raises a number of challenges, including: the security and diversity of supply sources and the protection of consumers against the volatility of energy costs, while ensuring effective action to combat climate change.

The first challenge stems from the impact of global trends that have already been identified: the fight against climate change and the global energy crisis of 2022. This is the result of an already highly integrated world economy in which the energy sectors, especially oil and natural gas, are among the most globalised markets. When it comes to these energy commodities, any shocks - supply or demand - that occur in one part of the world end up being felt worldwide. In addition to this global aspect, at continental level, the European Union (EU) has multiplied its institutional responses as a highly integrated economic bloc. Both in response to the energy crisis and in implementing climate change targets and instruments, the EU has increased the degree of coordination of public policies and market rules affecting the energy sector. From a strategic point of view, it is therefore essential to consider the sector within this global, and in particular European, economic framework.

The second important aspect is to recognise the growing importance of the local energy economy. Investment in local energy communities, individual and collective self-consumption and renewable energy communities is accelerating. The creation of local energy markets, where consumers can play a more active role through more flexible consumption or self-production, is increasingly being discussed. This role will be strengthened by the development of technological solutions that include not only the digitalisation of the energy sector and its networks, but also other innovations such as the integration of local storage or mobility solutions.

From all points of view, the challenges facing sectoral regulation require an unprecedented dynamism and adaptability in order to respond differently to new situations, such as the enormous price volatility on wholesale energy markets as a result of successive geopolitical imbalances, aggravated by Russia's invasion of Ukraine.

In this case, the need for a rapid response, given the strong impact of this situation on the economy as a whole and, consequently, on consumers, is matched by the prudence of the solutions to be adopted, given the complexity of the balances to be ensured: consumer protection in the short term, economic sustainability and decarbonisation of the economy, especially the energy sector, in the long term.

There is also a growing trend towards the integration of energy carriers, both in terms of planning and market design. This is true from the perspective of the global energy economy, where the coupling of the gas and electricity sectors in terms of prices or investment needs is a reality, possibly reinforced by the emergence of new investments in energy carriers such as hydrogen or the decarbonisation of gases and liquid fuels. It also stands out from the point of view of the local energy economy, where, for example, the search for sustainable mobility solutions requires an integrated consideration of different energy carriers and ways of using energy.

In summary, in the current context, there are a growing number of challenges related to the global energy economy, along with investments and the relevance of the local energy economy, and the complexity of integrating energy systems while developing the circular energy economy. These three dimensions need to be addressed as a whole, in an innovative and integrative approach which we call:

GLOCAL

GLOBAL+LOCAL+CIRCULARITY

The European Dynamic



At European level, regulation of the energy sector has undergone a gradual evolution, driven not only by the collective desire for a liberalised and integrated sector across Europe, but also by the (self-) imposition of decarbonisation targets to promote a more energy sustainable and resilient Europe.

This evolution has been fuelled by the implementation, at an accelerating pace, of successive legislative packages imposing obligations on the framework for action by national regulators.

While the first packages of 1996/98 and 2003 laid the essential foundations of the European model for the electricity and gas sectors, the successive packages of 2009 and 2019 consolidated and strengthened their functioning and paved the way for an integrated and decarbonised energy system. The relevance of European legislation for the planning of trans-European energy infrastructure and for monitoring the integrity and transparency of wholesale energy markets is also noteworthy. Sectoral regulation has also evolved since its creation and the first EU legislation, with the extension of its responsibilities and its supervisory and regulatory actions, while ensuring the efficient functioning of markets for the benefit of European consumers.

With the publication of the European Green Deal at the end of 2019, the European Union redefined its commitment to climate action, aiming to achieve carbon neutrality and "a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net greenhouse gas emissions by 2050 and where economic growth is decoupled from resource use"². Building on this Deal, the European Commission launched another legislative package in 2021 - Fit for 55 - with a holistic and cross-sectoral approach, where all relevant policy areas must contribute to the final climate-related goal. This package is not limited to energy, but also includes measures on climate, environment, transport, industry, agriculture and sustainable finance to decarbonise society.

At the end of 2021, in line with the objectives of the European Green Deal, the European Commission published a legislative package aimed at decarbonising the gas sector. The legislation focuses on the development of the hydrogen sector as well as renewable or low-carbon gases such as biogas, biomethane, synthetic methane and others.

In the road transport sector, the recent regulation revising the rules on CO₂ emissions from passenger cars and light commercial vehicles stands out, setting a new target of 100% by 2035. The new rules aim to reduce emissions from road transport and encourage the car industry to move towards emission-neutral mobility solutions, while promoting continuous technological innovation. In this context, the Commission will present a proposal to register vehicles after 2035 that run exclusively on CO₂-neutral fuels.

In July this year, a European regulation was adopted to speed up the development of infrastructure for charging and refuelling vehicles with alternative fuels and providing alternative energy sources for ships in port and stationary aircraft. The legislation covers all modes of transport and sets targets for infrastructure deployment. It also addresses interoperability and improves user-friendliness.

In parallel, and as a result of the energy crisis triggered by Russia's invasion of Ukraine and regional geopolitical imbalances, European countries adopted a series of emergency measures throughout 2022 to improve the resilience and security of supply of the energy sector in times of extreme pressure and volatility. These measures represent a further common European response to the new energy challenges.

2. Communication from the European Commission - European Green Deal - Brussels 11.12.2019

The lessons learned from this crisis are helping to evaluate the functioning and design of the European electricity market model. Both the European Commission and the Agency for the Cooperation of Energy Regulators (ACER) have identified improvements and changes to the sector's framework, with the European Commission preparing a review of the electricity market design in the first half of 2023.

The development of the European energy market, the ambitious European decarbonisation targets for the sector and the ability to adopt common emergency measures for the security of supply and resilience of the sector demonstrate the importance of the European decision-making and the scale of the challenges that lie ahead in the coming years, also from a national perspective.



Redesigning Markets



The energy transition to a low-carbon or carbon-neutral economy requires a redesign of the energy markets as we know them today, at various levels, from the range and typology of players to the contracting benchmarks or products to be negotiated.

In terms of the strategic development of regulation, it is therefore important to ensure a dynamic adaptation to the changing context of energy markets, while at the same time being able to anticipate certain trends and meet the challenges posed by the functional reorganisation of the energy sector.

In the context of this reorganisation, which necessarily requires changes in the regulatory framework, the central aspect of regulation remains very much focused on seeking efficiency in the operation of the different markets, whether wholesale or retail, in order to transmit appropriate price signals to the different players. In fact, this aspect gains greater importance in the context of the energy transition, which brings with it a greater multiplicity of players and business models and, consequently, greater complexity.

Given the increasing complexity of the energy transition under a liberalised market model, regulation pays particular attention to promoting the adequate and effective participation of all market players, in particular consumers, who are increasingly both recipients of market design and active participants in the change and functioning of that same market.

In this context, regulation is particularly concerned with redesigning the rules and conditions of participation to promote the removal of market barriers and effective competition aimed at long-term sustainability.

The changing shape of markets today and in the near future calls for flexibility of action, which in turn requires a regulatory context that is more oriented towards product and process innovation, capable of accommodating the operational and functional paradigm shift at the lowest possible social cost. It can and should even be envisaged that the existence of a more responsive and flexible market will require the traditional context of regulation at European level to incorporate greater subsidiarity in its design and implementation, promoting a more systemic and efficient allocation of resources and integration of markets within the European Union.

With regard to the National Petroleum System (NPS), given the future prospects of the transition to more sustainable energy carriers, a reduction in the consumption of fossil fuels is expected in the medium term, which poses major challenges for the regulation of this sector. In this context, it would be unreasonable to expect increased competition in the NPS through the entry of new players. Rather, it would be more likely to see a trend towards greater concentration in all segments of the value chain and a possible commitment to diversify the supply of energy products by those companies that remain in the oil sector.

In this context, it is essential that the regulatory model provides an effective response to the challenges posed by the energy transition and the resulting changes in the dynamics and functioning of this market, and it is certain that *ex ante* measures will play a key role in this context, together with the need for increased supervision and attention to the practices and behaviour of operators.

Evolution of energy infrastructure



Dynamic infrastructure adapted to the needs of the energy system

The proliferation of renewable energy production connected to low voltage electricity grids, combined with self-consumption or, for example, the "fast" charging of electric vehicles, as well as the injection of renewable gases into networks originally designed for the transport and distribution of natural gas, pose challenges for the management of energy systems, which can be met by reinforcing and extending grids and, in the case of gas, by optimising existing networks.

In parallel with the need to increase capacity or readapt existing networks at national level, it may be necessary to provide more capacity for international interconnections in the transmission grid, so that the potential offered by Europe's geographical diversity in terms of the availability of endogenous renewable resources can be properly harnessed and exploited.

On the other hand, the capacity usage of electricity grids, especially high voltage grids, is expected to decline in the coming years as a result of the strong penetration of renewable and decentralised electricity generation and self-consumption production, reinforced by the increasing implementation of autonomous storage solutions and local flexibility, as well as the success of energy efficiency measures on the demand side.

With regard to gas sector infrastructure, the need to adapt existing networks at national level may be reinforced by the impact of electrification on the decline in gas demand, particularly for smaller supplies at lower pressure levels, which will be difficult to offset by the penetration of renewable gases, which are essential to facilitate the decarbonisation of energy-intensive sectors.

Reduced capacity use of energy infrastructure is likely to exert pressure on network access tariffs, affecting consumers, especially the most vulnerable. This pressure could be mitigated, in particular, by greater requirements to promote efficiency in the management and maintenance of this infrastructure, both in terms of the costs involved and in terms of ensuring quality of service.

Against this backdrop, regulation must continue to ensure that the risks of future investment in underutilised networks and infrastructure are reduced by promoting affordable network access tariffs, which will tend to be used mainly by "inactive" customers with fewer choices. This trend therefore requires maintaining a prudent pace of investment, using innovative and flexible solutions wherever economically rational, to make better use of existing infrastructure. At the same time, we must strive to ensure that this infrastructure is properly maintained, so that it can be used for many years to come, without jeopardising compliance with climate energy policy objectives.

Finally, it is becoming increasingly important to consider investment decisions from an integrated electricity and gas perspective.

Regulation will therefore play a fundamental role in articulating the need to develop new networks, to adapt them technologically and to encourage better use of existing networks, while ensuring that adequate standards of quality of service are met in time and space to protect current and future consumers.

In the context of the NPS, future prospects arising from the transition to more sustainable energy carriers will tend to lead to lower levels of use of the value chain infrastructure. On the other hand, it is expected that NPS players will diversify their business models in a context of adaptation to the new energy reality, by investing in greener energy carriers, either through the conversion of existing infrastructure or through greenfield investments in new technological solutions.

Given the specific context of the reform, optimisation of existing resources must take precedence over new investment, and options that promote infrastructure sharing should be favoured wherever possible, in order to ensure a balance between consumer protection and the sustainability of businesses in the sector.

• Flexibility and decentralised resources of electricity grids

The process of an energy transition towards carbon neutrality implies a greater use of distributed energy resources, mainly from renewable sources, and consequently a greater active participation of consumers. At the intersection of these two vectors, energy infrastructure are crucial for the transformation of the economy and the decarbonisation of society. The development of networks will in fact be one of the challenges of this energy transition.

In this context, one of the challenges for network operators is to ensure that infrastructure is planned and managed in an efficient and coordinated manner, based on a dynamic and flexible management model that ensures the integration of generation and consumption.

Infrastructure development must ensure that technological developments are compatible, based on the use of endogenous resources and the provision of flexible solutions, presenting the most efficient solution. Investment decisions must take these dimensions into account in order to ensure the long-term economic sustainability of infrastructure and, consequently, of energy systems themselves.

The integration of new flexibility resources, on both the generation and consumption sides, is an additional aspect that will have to be taken into account in the operation of the system, in particular as an alternative to the traditional approach of building more grids and increasing their capacity, in order to cope with the growth of new renewable production, which is intermittent in nature and will generate additional demand for electricity to be connected to the grids. Such needs will also arise on the demand side, which will also be intermittent, as in the case of consumption related to electric mobility. Using flexibility as an alternative to increasing capacity will make it possible to optimise operating costs, develop innovative network management solutions and rationalise investments. In particular, the conditions must be created for network capacity to be made available on the basis of non-firm access options, supported by flexibility solutions that guarantee the security of the system operation.

However, flexibility solutions are not an end in themselves and their economic impact must be weighed against alternative grid management and planning options. The same decentralised flexibility resources will pose a challenge for coordination between the transmission and distribution system operators, as they will imply a much more active role for the latter's grids in the context of the digitalisation of the sector. Integrated grid management, regardless of the voltage level, is even more important in the context of distributed energy resources in order to minimise restrictions on their use. The challenge will be to find a balance between the results of global optimisation and the results of different local optimisations.

Regulatory methodologies will have to be adapted, in line with the recent decisions taken by ERSE not to link grid operators' revenues directly to the level of investments made. The regulatory framework will have to evolve to ensure the conditions for greater integration of flexibility solutions, based on a greater diversity of resources, which are increasingly decentralised, mitigating the usual approach of leaving the provision of this type of service to the traditional players in the sector. This approach, with a strong focus onconsumption but also on autonomous storage solutions, should encourage the choice of the most technically and economically efficient solutions to achieve the transition objectives.



Integration of energy carriers



Joint planning and management of the electricity and gas sectors

Decarbonisation of the energy sector could lead to a significant increase in electrification, together with the digitalisation of systems and the development of new technological solutions and business models.

Another challenge is to start decarbonising the natural gas sector with the integration of renewable and decarbonised gases and the development of new energy carriers such as hydrogen.

Recent European regulations and guidelines on energy and climate policy have highlighted the growing relationship between the electricity and gas sectors, with particular emphasis on the future role of renewable and decarbonised gases such as biomethane, hydrogen and synthetic methane.

In the coming years, it is expected that renewable and decarbonised gases produced from renewable sources or waste will be increasingly integrated into existing natural gas networks, and that new networks and infrastructure dedicated to hydrogen will be adapted and developed. To this end, the analysis of investments in large gas infrastructure should take into account the risk and uncertainty of technological development in this area and, consequently, the pace of integration of renewable and decarbonised gases into the energy sector and society.

This is therefore a time of change for the gas sector in terms of infrastructure, taking into account national and European developments in terms of integrating different competing solutions and technologies into the energy scenario to supply an increasingly decarbonised society.

This is an essential area if we are to achieve carbon neutrality, enabling the decarbonisation of energyintensive sectors, and to ensure the medium and long-term flexibility needed to match the availability of renewable supplies, with seasonal and inter-temporal variations, to the consumption needs of our society.

For these reasons, the projections for the various energy carriers must be carried out in a holistic, integrated and transparent manner, before the needs are identified in the planning exercise undertaken by each infrastructure operator, taking into account the interests of the different energy carriers, on the supply, demand and infrastructure sides, as well as when discussing more centralised or more local and decentralised physical and commercial models.

In this context, the decarbonisation of the natural gas sector and the strengthening of the links between the gas and electricity sectors are of particular importance. This poses major challenges for the planning of gas networks and infrastructure, namely (i) to enable them to adapt to future needs for the transport of hydrogen, renewable and decarbonised gases; (ii) to ensure efficient integration with the electricity sector and other sectors where gas will continue to play an important role; (iii) to avoid stranded investment costs in gas infrastructure; and (iv) to ensure the economic and environmental complementarity of the different energy carriers. ERSE must therefore contribute to the assessment of the energy options to be followed, not only for the economy as a whole, but also for the different types of consumers and energy carriers.

Decarbonising mobility

The transport sector remains the largest energy consumer at both national and EU level. Decarbonising this sector, is a major challenge that requires an integrated, multi-energy carrier approach.

One of the most important trends is the electrification of mobility, both by increasing the penetration of electric mobility and by integrating the electric vehicle into the "smart home" concept. This is partly related to exploiting the synergies between the increasing digitalisation of the electricity sector and its decentralisation, as mentioned above. Thus, by consuming

green electricity, the electric vehicle plays a direct role in decarbonisation and also interacts with developments in self-consumption, distributed storage and the increasing participation of demand in electricity markets.

At the same time, biofuels could play an important role in decarbonising the transport sector in the short to medium term. Their environmental benefits, together with their proven technological viability in transport and the economic rationale associated with using existing infrastructure, position biofuels as an important transitional carrier in road transport and as a potentially dominant environmental solution in shipping and aviation.

In this context, we highlight the role of advanced bioenergy, which, in addition to the benefits already mentioned, makes an important contribution to the use of waste materials and the promotion of a circular economy.

A diversity of energy carriers is desirable, not only because it makes it possible to plan and rationalise the investments needed to decarbonise mobility, but also because it brings resilience and security of supply to the transport sector.

Consumer protection



"To protect the rights and interests of consumers, in particular of economically vulnerable end-user customers, with respect to prices, the way how services are provided and the quality of such provision, by promoting the provision of information, clarification and training" is one of ERSE's first statutory duties³ and thus remains one of its institutional mandates.

The energy transition must be inclusive, allowing consumers, especially the most vulnerable, to benefit from new, cleaner and more sustainable forms of energy. At the same time, regulation must continue to recognise the need for measures to ensure that consumers have access to essential energy services that reflect efficient management, both in terms of rationalising their costs and ensuring the quality of the services provided, including tariffs for consumers served by suppliers of last resort (SOLR) and socially regulated tariffs for vulnerable consumers.

Indeed, one of the key challenges for regulation will be to adapt to a paradigm shift: regulation has traditionally been more familiar with centralised decision-making than with the dispersed, decentralised decisions that may characterise an energy scenario characterised by the dominance of individual consumer choice.

^{3.} Paragraph 2 a) of Article 3 of ERSE's Statutes.

To this end, ERSE will maintain its commitment to good communication with consumers, promoting energy literacy appropriate to the new times by providing information and useful tools, as well as training initiatives that help consumers to play an active role in the sector and to make decisions that are more informed and suited to their reality.

In the current energy transition scenario, commercial and contractual relationships are changing and becoming more complex, whether in the area of self-consumption, where the consumer is also the producer, or in other areas of the energy sector, such as electric mobility. As the energy consumer plays an increasingly active role, ERSE aims to be prepared to adapt the regulatory framework to the new players in the sector.

ERSE also has a role to play in raising the awareness of stakeholders towards more efficient energy behaviour. ERSE is therefore firmly committed to promoting initiatives that contribute to consumer energy efficiency through its Energy Consumption Efficiency Promotion Plan (*Plano de Promoção da Eficiência no Consumo de Energia -* PPEC).

In the current context of energy instability, the consumer is particularly important, which is why ERSE pays particular attention to its duty to protect consumers, especially the most vulnerable.

Sanctioning activity



During the five-year period 2023-2027, ERSE's enforcement powers will need to be strengthened in order to ensure the application of sanctions that, in terms of general prevention, reaffirm the strength of legal rules and guarantee consumer confidence in the energy markets.

The Law authorising the sanctions regime in the energy sector⁴ celebrates its 10th anniversary on the opening year of the present Strategic Plan. During this decade, ERSE has intensified the processing and sanctioning of administrative offences, resulting in a significant increase in the number and complexity of cases, as well as a broadening of the issues addressed.

Enforcement, which can benefit from past experience, must keep pace with the challenges posed by the energy transition, in a context of new players and rapid technological innovation.

^{4.} Law No 9/2013, of 28 January.





Strategy

Taking into account its mission and the trends and challenges it faces in the near future, ERSE has defined four strategies to guide its actions over the five-year period 2023-2027.

The strategies, as well as the targets that ERSE has set for each strategy, are designed to improve and develop the institution's performance, so their implementation will need to be constantly updated.





S4 - Knowledge and growth

Independence, integrity and trust



S1 - Participation and inclusion:

Consumer protection and empowerment and stakeholder involvement

ERSE is committed to promoting a dynamic and inclusive regulation of the energy sector, in which stakeholders have an active voice and in which the rights and interests of consumers are defended and safeguarded.

Promoting energy literacy and continuously investing in communication strategies that allow easy, quick and appropriate access to information are ERSE's priorities. These are essential tools for providing consumers and other stakeholders with the knowledge they need to participate actively and consciously in an essential and ever-changing sector. ERSE's provision of information, training initiatives and other useful tools contributes both to the protection of consumers, especially the most vulnerable, and to the empowerment of those consumers who choose to take a more active role in the energy market.

For the period 2023-2027, ERSE has set itself the following Targets:

- **T1** Ensuring an inclusive and balanced representation of stakeholders in the decision-making process by promoting broad and effective participation in consultation processes, with prompt handling of the contributions received.
- T2 Developing and implementing actions and mechanisms to promote consumer protection and empowerment through support, clarification and information tools.
- T3 Promoting energy literacy for conscious decision-making and proactive consumer participation.
- **T4**

Communicating the results of ERSE's work and decisions clearly and objectively.

T5

Continuously and sustainably assessing the impact of regulatory action and disseminating it to the public.





Improving and modernising the public and stakeholder consultation process, providing new tools for interaction and information processing.



Promoting adequate, balanced and inclusive representation of sector stakeholders on the Councils. Providing technical training to Council members to reduce knowledge asymmetries.



Developing interactive information tools, as well as educational and multimedia materials.



Providing informative content written in simple, clear language.



Carrying out impact studies, mystery shopping and other specific consultation activities.



Expanding consumer education programmes, focusing on proximity-based and effective measures with the target audience, carried out by ERSE staff or in the framework of institutional cooperation.



The transformation of the energy sector is underway and all dimensions of regulation need to be adapted to its current and future prospects.

ERSE's priority is to ensure that the path towards a CO_2 -neutral sector, based on the decentralisation of energy production, innovation and the continuous development of technological solutions and innovative business models, and the increasing integration of energy carriers, takes place within a dynamic regulatory framework driven by efficiency and affordability.

The guiding principles of this strategy are to ensure the adequate development of infrastructure and the sustainability of the energy sector in a context of continuous optimisation of costs and benefits for operators and consumers, as well as to guarantee universal access to energy at affordable prices for consumers.

ERSE will also play an active role in identifying and influencing new trends in the sector, which will be reflected in a regulatory framework designed to be dynamic and proactive.

For the period 2023-2027, ERSE has set itself the following **Targets:**

- **T1** Ensuring a dynamic and proactive regulatory framework that facilitates new trends in the sector.
- T2 Ensuring efficient regulation of natural monopolies, in the context of increasing decentralisation, innovation and integration of energy carriers.
- **T3** Ensuring that the decarbonisation of the sector takes place at an efficient cost, with visible benefits for consumers and operators, through investment decisions in energy infrastructure based on the principle of energy efficiency first and economic rationality.
- **T4**

Ensuring universal access to energy services for consumers, regardless of their economic, social and geographical situation.



Studying the new trends and developments in the energy sector by creating multidisciplinary, dynamic, flexible, agile and committed working groups with other organisations to ensure a common vision for ERSE regarding various energy issues and carriers.

Adapting current regulatory models and instruments to the objectives of the energy transition, and to an intersectoral, innovation and decentralisation rationale (regulatory methodologies for natural monopolies, regulatory incentives, impact assessment, cost-benefit analysis).



Promoting the integration of new decentralised production and storage facilities, and the implementation of flexible network management.



Promoting energy efficiency in an integrated manner across all energy carriers.



Strengthening cooperation with national and European institutions, taking a proactive stance on European regulation and sharing information and knowledge on new regulatory methodologies with counterparts.



Designing and implementing pilot projects and sandboxes to test innovative solutions and conducting cost-benefit analyses in a real laboratory environment with a view to their replication.



Aligning ERSE's action strategy with general social policies, in particular with the *Long-Term Strategy to Combat Energy Poverty*⁵.

^{5.} The National Long-Term Strategy to Combat Energy Poverty 2022-2050, in line with the discussion published for public consultation in early 2023, defines a set of quantified targets for 2050, namely an improvement in the following indicators (i)population living in homes unable to keep the house adequately heated; (ii) population living in homes whose energy expenditure is +10% of total income; (iii) population living in dwellings with problems of infiltration, damp or rotten elements; (iv) population living in dwellings that are not comfortably cool in summer.

S3 - Energy markets: Effective and dynamic regulation

Current and future developments in the energy sector bring with them a multitude of new players and business models, as well as increasing complementarity between energy carriers and repositioning of the various players.

The evolution of regulation will involve the creation of a proximity-based energy economy, with a clear focus on empowering consumers and democratising access to production activities. The concepts of "Prosumer" and "Internet of Things"⁶ will make the consumer an active element in a logic of efficient producers and consumers.

All these aspects challenge the current architecture of energy markets, which will have to adapt to the new organisational logic of the sector. The design of new market frameworks and rules will have to move forward, with continued efficiency, simplification of rules and correct price signalling for each energy product as cornerstones, together with the strengthening of consumer protection throughout the evolving period. The development of a dynamic and proactive regulatory framework will be a priority in implementing new market options.

ERSE will also play an active role in anticipating international trends, (re)designing energy markets and promoting a debate on their implementation.

For the period 2023-2027, ERSE has set itself the following **Targets:**

- T1 Ensuring dynamic regulatory instruments, adapted to the changing architecture of energy markets.
- T2 Ensuring the efficient functioning of markets, aimed at harmonising the various energy carriers and the correct price signal.
- Ensuring consumer protection in the face of the growing diversity of new players in the energy sector and the introduction of innovation in the services and products offered.

Encouraging active consumer participation and flexible demand.

Γ**Δ**

^{6.} In the sense of "accessing and using the internet and other networked technologies to connect objects and devices". Available at https://eur-lex.europa.eu/LexUriServ/do?uri=COM:2008:0677:FIN:PT:PDE





Improving market supervision and monitoring processes, taking into account the evolution of the legal framework.



Identifying the main international trends in market design and discussing with stakeholders the methodology for implementing these trends.



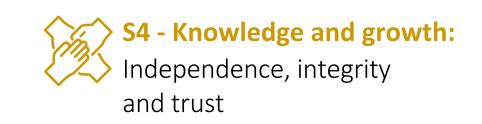
Encouraging the development of energy communities and new forms of market participation through flexible systems, the removal of barriers to entry for new players and the improvement of options for injecting electricity into the grid.



Developing national and international regulation with a view to more effective market design.



Assessing, on a regular basis, the regulatory methodologies applied in a context of increasing concentration of operators at certain stages of the road fuel and LPG value chain versus a context of development of biofuels and other carriers (low carbon fuels).



The success of ERSE's work requires a constant commitment to improving the organisation, ensuring that its human and technical resources are able to monitor and respond to the constant challenges of the energy sector, anticipating evolving scenarios and adopting the best governance practices to guarantee independence, transparency, integrity and trust.

In this context, ERSE will continue to promote the continuous improvement of the knowledge and skills of its human capital, through specialised training and in innovative areas that create individual and institutional value, thus enhancing the merits of its staff. It will be equally important to provide ERSE with the technical resources it needs to optimise its action and strengthen its organisational culture, based on the continuous improvement of work processes, more flexible and fluid interactions, the promotion of teamwork and the incorporation of best management practices.

For the period 2023-2027, ERSE has set itself the following **Targets**:

- Guaranteeing ERSE's integrity and transparency, through the best practices of good financial and functional governance.
- T2 Implementing a talent management policy at human resources level, providing ERSE with the tools to attract, develop and retain talent.
- T3 Providing ERSE with the skills to regulate the sector, valuing the specialised training and merit of its employees.
- Affirming ERSE's distinctive role in creating value for society, through decisions based on technical criteria.
- T5 Ensuring the smooth running of the sector, supported by the efficient and effective application of its sanctioning powers.



B

Ensuring training plans, including in innovative and cross-cutting areas, that encourage continuous training and create individual and institutional value.



Implementing mechanisms to qualify, manage and enhance talent in order to attract the best human resources and to train and retain existing staff.



Undertaking benchmarking initiatives on governance practices and human resources management policies.



Providing the organisation with the technical resources needed to optimise its performance, in particular by ensuring that IT systems and equipment, security systems and physical facilities are up to date and effective.



MONITORING THE STRATEGIC PLAN

Monitoring the strategic plan

The 2023-2027 Strategic Plan presented here is a dynamic management tool that can be adapted throughout its implementation period. For each strategy, targets have been set to be achieved over the period 2023-2027, which are then detailed in the corresponding annual activity plans. This approach gives the Strategic Plan the flexibility to respond to the evolution of the energy sector and the challenges that arise during the five-year period.

Monitoring of the Strategic Plan is extremely important for the achievement of the main strategies and for the implementation of measures that will contribute to the success of the entire organisation. Through monitoring, it is possible to track the degree of implementation of the Plan and identify potential deviations that may justify the implementation of corrective measures by the management, namely the adjustment of certain activities and/or the reallocation of resources (human, material, financial).

Monitoring will be based on the establishment of internal management tools that will make it possible to measure tangibly the progress and effectiveness of the strategies identified in the Plan, as well as the quality of the services and, consequently, the organisational performance of ERSE.

ERSE will undertake regular monitoring of its Strategic Plan by drawing up internal reports, which will be known to all ERSE staff and will provide the Board of Directors with internal management tools to carry out its duties.

MULTIANNUAL FINANCIAL PLAN

-1.000

Multiannual financial plan

ERSE's activities are financed by revenues that are independent of the State budget and come from the regulated sectors, which guarantees its complete autonomy as an independent administrative body.

The performance of its tasks is guaranteed by the high technical expertise of its human resources and is based on the best practices of good financial and functional governance.

Human Resources

On 31.12.2022, ERSE employed a total of 104 people, with a trend towards gradual and balanced growth in order to provide a quality response to the growing challenges of the regulated sectors, encouraging constant investment in the acquisition and updating of technical skills.

Technology and Information Systems

ERSE is constantly striving to ensure the robustness, security and integrity of its information systems and has renewed and expanded its entire infrastructure in a sustainable and structured manner.

As regards the development of applications to support its activities, ERSE will continue to invest in efficient tools that meet consumer expectations and facilitate supervision and regulation.

Financial Plan 2023-2027

In order to implement the defined strategies, it is essential to ensure a financial plan that supports the normal operation of ERSE and the investments needed to fulfil its mission and tasks.

As a management tool, the Financial Plan 2023-2027 has taken into account an estimated projection, in terms of budget execution verified at the time of its preparation, in the budgetary groupings that aggregate ERSE's expenses and revenues, totalling \notin 77,837,100 for the five-year period.

	Multiannual Financial Plan 2023-2027				
	2023(1)	2024	2025	2026	2027
Staff ⁽²⁾	9 281 000	10 132 000	10 639 000	11 171 000	11 730 000
Acquisition of Goods and Services (3)	2 467 300	2 561 850	2 613 000	2 665 000	2 718 000
Transfers to Autonomous Funds and Services (4)	744 309	774 189	813 000	862 000	900 000
Transfers to institutions - EU + International Organisations	40 691	39 433	39 500	39 500	39 500
Transfers to Non-Profit Institutions ⁽⁵⁾	140 000	181 978	186 000	190 000	194 000
Taxes and Fees	523 000	429 600	429 600	429 600	429 600
Financial Charges	3 000	2 000	2 000	2 000	2 000
Acquisition of Capital Goods ⁽⁶⁾	943 100	869 350	870 000	870 000	870 000
TOTAL EXPENDITURE	14 142 400	14 990 400	15 592 100	16 229 100	16 883 100
Contributions from the Electricity and Natural Gas Sectors	13 000 630	13 789 114	14 390 100	15 027 100	15 681 100
Contributions from the Fuel Sector and $\operatorname{Others}^{\scriptscriptstyle (7)}$	1 041 770	1 096 000	1 096 000	1 096 000	1 096 000
Fines received from Administrative Offence Proceedings	80 000	80 000	80 000	80 000	80 000
Interest from CEDIC	0	5 286	6 000	6 000	6 000
Other Revenue	20 000	20 000	20 000	20 000	20 000
TOTAL REVENUE	14 142 400	14 990 400	15 592 100	16 229 100	16 883 100
Variation	-	6%	4%	4%	4%

(1) Budget approved on 3 December 2022.

- (2) Taking into account the budget for 2024 and a 5% increase in subsequent years.
- (3) Taking into account the budget for 2024 and a 1% increase in subsequent years.
- (4) Funding of the Competition Authority.
- (5) Financial support for Arbitration Centres and the participation of Consumer Representatives in ERSE's Tariff Council.
- (6) Taking into account the budget for 2024 and a 0% increase in subsequent years.
- (7) Unit amounts updated for 2023 in accordance with Article 6(2) of Administrative Rule No 343-A/2019, as amended by Administrative Rule No 17/2021: 0.143/Petrol, 0.135/Diesel, 0.146/LPG and 0.138/Jet.









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