



European
Commission

Strategic Plan 2020-2024

DG ENER

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INTRODUCTION

The unprecedented COVID-19 crisis has deeply disrupted the economies in the EU and those of external trading partners. It has affected global trade and supply chains, impacting the pace and scale of investments. Equally, the demand side has been affected. As a result, economic activity and energy consumption have decreased rapidly.

Member States and the EU authorities are taking measures with the aim of avoiding that the liquidity shortage induced by the COVID-19 crisis turns into a deeper economic recession. However, one cannot lose sight of persisting mid- and long-term challenges with potentially significant impacts on livelihoods. As announced by Commission President von der Leyen in the European Parliament, the most pressing challenge, responsibility and opportunity for Europe is keeping our planet and people healthy. This is the defining task of our times, and the European Green Deal is the response that will drive us forward to climate neutrality by 2050 while making our economy and industry more innovative, resource efficient, circular and competitive. The European Green Deal is Europe's new growth strategy and together with the Next Generation EU recovery plan it will help the EU economy recover from the COVID-19 crisis by creating jobs and making Europe more competitive globally. By pursuing the European Green Deal objectives, DG ENER aims at providing a rapid response to the impacts of the COVID-19 crisis that also addresses these mid- and long-term challenges.

Through this Strategic Plan DG ENER reflects how it contributes to the priorities and ambitions set out in the Political Guidelines of President von der Leyen as well as to modernising the Commission's administration. In particular, DG ENER's Strategic Plan is the reference point for the 2020 to 2024 period and includes a renewed energy strategy and specific objectives that will support the achievement of the Commission general objectives, the EU's recovery plan and, specifically, the European Green Deal. It also defines indicators to allow performance to be measured and managed over time. In addition, Part 2 of DG ENER's Strategic Plan describes the steps that it will take to modernise its way of working and to make the most efficient and effective use of its resources. This includes various management aspects such as human resources, sound financial management, anti-fraud, digital transformation and sound environment management.

It is of paramount importance that Europeans have access to affordable, secure, reliable and clean energy. With the production and use of energy across economic sectors accounting for about 75% of the EU's greenhouse gas emissions, further decarbonising the energy system is critical to reaching the energy and climate objectives in 2030, enabling Europe to become the first climate-neutral continent. Speeding up the deployment of clean energy, energy interconnectivity across the borders, a better-functioning market for energy and research and innovation are key to achieving these aims.

Under the guidance of Commissioner Kadri Simson, and in line with her mission letter, DG ENER will set the foundations for a sustainable, affordable and secure energy system that is part of climate neutral Europe and leaves no one behind.

PART 1. Delivering on the Commission's priorities

A. Mission statement

The Directorate-General for Energy (DG ENER) is responsible for developing and implementing European Energy Policy and ensuring that all Europeans have access to clean, secure, affordable and reliable energy. Considering the central role of energy in any economic activity, DG ENER overarching goal is **to pursue the European Green Deal objectives and boost Europe's economic recovery**, through the implementation of the recovery plan, while contributing to the implementation of other political priorities. To achieve these goals, DG ENER is responsible for new initiatives, and builds on implementing and further developing the European Energy Union. Its work is structured around several complementary and mutually reinforcing areas.

DG ENER aims at **decarbonising the economy**, in particular by speeding up the deployment of clean energy across all sectors, promoting a power system largely based on renewables and facilitating smart integration of electricity, heating, transport and industry into an integrated energy system. The implementation of the *energy efficiency first* principle considering its potential to **moderate energy demand** across the economy represents a central element in this context.

It aims at **ensuring energy security** which is built on solidarity and trust between EU Member States, including by assessing how sources of supply can be diversified.

DG ENER promotes an **integrated, interconnected and well-functioning European energy market**.

It drives the further development of **energy research, innovation and competitiveness** and strengthens **the external dimension of European energy policy**.

In accomplishing the above-mentioned objectives, DG ENER sees an important role for **external communication activities** as defined in the ENER External Communication Strategy. They aim to increase public awareness (with strong focus on citizens and stakeholders) and understanding of EU energy policy, and ultimately to change societal and consumers' behaviours.

B. Operating context

This section maps the internal and external environment in which DG ENER operates and how its interventions are shaped.

Competencies of the European Union and international legal obligations in the energy field

The EU Treaties, together with the Treaty establishing the European Atomic Energy Community (EURATOM Treaty) represent the primary law relevant for the energy sector. The Treaty on the Functioning of the European Union (TFEU) gives the EU for the first time an explicit competence in the energy field. Art. 194 states that the EU policy in the area of energy shall aim to ensure the functioning of the internal market, ensure security of supply, promote energy efficiency and the development of new and renewable forms of energy, and promote the interconnection of energy networks. Under the TFEU, energy policy is a shared competence. Thus, the Member States may legislate and adopt legally binding acts to the extent that the EU has not exercised its competence. The EURATOM Treaty is a *lex specialis* in relation to the TFEU, which applies to the nuclear energy sector and covers all policy aspects relevant for the civil use of nuclear energy.

Types and instruments of EU intervention

DG ENER carries out EU energy policy development and coordination resulting inter alia in regulatory actions to and in international multilateral and bilateral agreements in the field of energy. Proper enforcement of EU rules involving all informal and formal activities aiming at ensuring that Member States implement and apply correctly EU law is also a key priority of intervention for DG ENER. Beyond this, DG ENER intensifies cooperation with Member States as part of a more comprehensive governance system for energy policy. DG ENER is also responsible for several direct and shared management programmes.

The external environment in which DG ENER operates - Key stakeholders

In the Council, the main formation addressing energy and climate issues are the Transport, Telecommunications and Energy Council (TTE Council) and the Environment Council formations, based on the preparatory work of Coreper I and respectively of the Energy and Environment Working Groups. In the European Parliament (EP), energy files are mainly dealt with by the Committee for Industry, Research and Energy (ITRE) as lead committee. However, with the overarching objective of climate neutrality of the European continent by 2050, the committee on environment, public health and food safety (ENVI) has an increasing role also in energy-pertinent dossiers. In addition, the Commission has close contacts with both the Committee of the Regions and the European Economic and Social Committee on energy issues.

The Commission further interacts with a very broad range of stakeholders in the area of energy, including Member States' governments, national authorities, industry, consumers' associations and NGOs. In this vein, DG ENER set up several Fora to gather relevant stakeholders in the energy sectors to discuss opportunities and challenges related to the

internal energy market (i.e. Electricity and Gas Regulatory Fora – *Florence and Madrid Fora*, Energy Infrastructure Forum - *Copenhagen Forum*, Citizens' Energy Forum - *Dublin Forum*). DG ENER also interacts with international organisations such as the International Energy Agency (IEA), the International Atomic Energy Agency (IAEA), the OECD Nuclear Energy Agency (NEA), the International Renewable Energy Agency (IRENA), and the International Partnership for Energy Efficiency Cooperation, the Energy Community and EFTA.

Nuclear files are handled by the General Affairs Council, based on the preparatory work of Coreper II and of the Working Party on Atomic Questions. The ITER project and issues related to research under the EURATOM Treaty are dealt with by the Joint Working Party on Research/Atomic Questions. The Commission further interacts with a broad range of stakeholders, including Member States' governments and national authorities, such as regulatory authorities in the field of nuclear safety (ENSREG) and radiation protection (HERCA). DG ENER also cooperates with third countries' authorities, in particular in the framework of the implementation of Euratom Nuclear Cooperation Agreements and Stress Tests of nuclear power plants, with industry organisations and individual companies, non-governmental organisations, as well as other organisations representing various stakeholder groupings (e.g. local and regional communities, consumer associations, etc.).

C. Strategy

General objective 1: A European Green Deal

DG ENER strategic vision for the period 2020-24 is to fully support the **European Green Deal for the European Union (EU) and its citizens** through its actions, policies and instruments.

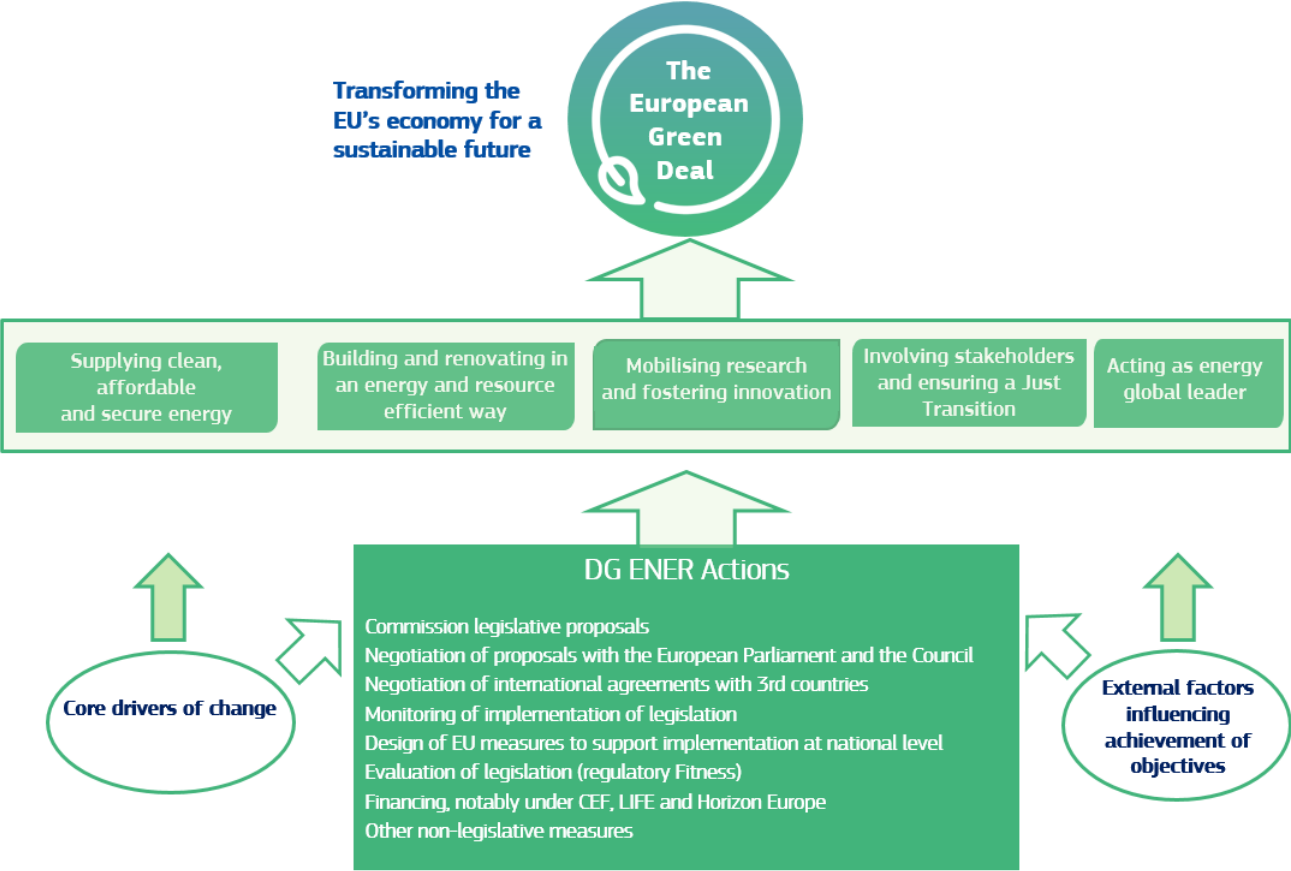
With the production and use of energy across economic sectors accounting for about 75% of the EU's greenhouse gas emissions, further **decarbonising the energy system is critical for reaching the energy and climate objectives in 2030 and climate neutrality by 2050.**

The overall objective for EU Energy Policy in the next five years is therefore to set the foundations for a climate neutral economy by 2050 while ensuring a **sustainable, affordable and secure energy system** and **leaving no one behind**. Such transition will require **significant investments** and therefore mobilising both the public and private sector will be a priority for DG ENER under all of its specific objectives. This is particularly important in the context of **recovery from the COVID-19 crisis**, and the Commission's recovery plan.

In line with the European Green Deal Communication, the **following specific objectives** have been defined to meet all the above five overarching ambitions while ensuring a just transition. Financing this transition, as set out in a second Communication on the Green Deal Investment Plan, and later in more detail in the Commission's recovery plan, will involve a range of financial instruments, including temporary ones proposed under the plan, as well as the spending programmes under the revised MFF (i.e. the Connecting Europe Facility, LIFE, Horizon Europe, Innovation Fund and ITER):

- (i) **Energy is clean, affordable and secure by fostering a decarbonised energy production and use in the EU that contributes to economic recovery and increased climate ambition. It also relies on a well-functioning and secure internal energy market, fit for decarbonisation where progress is monitored through the Energy Union Governance.**
- (ii) **Buildings and renovations are performed in an energy and resource efficient way and the Energy Efficiency First principle is applied in energy investment decisions in the Union.**
- (iii) **Research is mobilised and innovation fostered by designing a modern EU energy system that relies on clean energy technologies and digitalisation.**
- (iv) **All stakeholders are involved and a Just Transition is ensured by enabling energy consumers being at the heart of the clean energy transition, ensuring that no one is left behind, building on the European Climate Pact.**

(v) **The EU acts as energy global leader** by contributing to an increased ambition for clean energy to be produced and used in third countries.



Specific Objective 1: **Energy is clean, affordable and secure** by fostering a decarbonised energy production and use in the EU that contributes to economic recovery and increased climate ambition. It relies on a well-functioning and secure internal energy market, fit for decarbonisation where progress is monitored through the Energy Union Governance.

Clean energy

Clean energy is at the heart of the energy transition. The EU aims to get 20% of its final energy consumption from renewable sources by 2020 and at least 32% by 2030. Several initiatives are planned for this mandate to contribute to the achievement of specific objective 1. Renewables play an increasingly important role in tackling climate change because of their intrinsic decarbonisation effect penetrating in all energy-driven sectors of the economy, while enhancing EU energy security, creating growth and jobs and strengthening EU industrial and technological leadership, which is at the core of the **Green Deal** and the **post-COVID-19 Recovery plan** and in line with the **Sustainable Development Goal 7**¹ to ensure access to affordable, reliable, sustainable and modern energy for all.

The Commission will present strategies on **energy system integration, clean hydrogen** and **offshore renewable energy** in 2020. The **strategy on energy system integration** will address the EU energy system holistically, in order to create stronger links between the electricity, heating and cooling, transport, agriculture and industry sectors, setting concrete actions to get Europe on track for a smart, carbon-neutral energy system. The **EU hydrogen strategy** will focus on the role of clean hydrogen in a climate-neutral economy as a complementary fuel, feedstock and carrier which, if produced from renewable electricity, could materialise as a “moleculised” renewable vector into sectors hard-to-electrify by displacing fossil gases, liquids and solid forms of energy. In line with the objective of climate neutrality, the objective is to establish a hydrogen economy built on renewable hydrogen and establish European competitiveness in related technologies.

The **offshore renewable energy strategy** will provide further support to the ambitious deployment and integration of offshore wind and ocean renewable energies across the EU. The integration of electricity, gases and heat markets will play a particular role in this process. Decarbonisation of gases and replacement of gases with renewable alternatives is likely to play a role in sectors difficult to electrify and where it proves to be cost-competitive. To enable access of decarbonised and renewable gases to the market and to the infrastructure and to maintain sufficient liquidity and sufficient competition, a number of regulatory changes will be necessary to the existing gas market Directive and Regulation. On clean hydrogen, DG ENER will also facilitate exchanges of experiences and best practices among Member States through the **Hydrogen Energy Network**.

¹ <https://sustainabledevelopment.un.org/sdg7>² Renewable Energy Directive (EU) 2018/2001

The Commission will support Member States' transposition of the **revised Renewable Energy Directive**² adopted in 2018 and ensure its correct implementation. In addition, the Commission will adopt a considerable number of delegated and implementing acts (mainly on accounting rules and on bioenergy sustainability criteria) in application of the directive.

Furthermore, DG ENER will review the 2018 Renewable Energy Directive and, if appropriate, proceed with its revision in order to adjust it to the goal of increasing the EU 2030 climate target, in line with the **2030 Climate Target plan** (Q3 2020), and implement the actions proposed in the strategies mentioned above.

DG ENER will closely work with the DGs leading other initiatives with a clear link to renewables, for example the revision of the **Energy and Environment State Aid Guidelines**, the revision of the **Energy Taxation Directive** or the **Strategy for smart and sustainable mobility**.

Affordable energy

The **EU's Internal Energy Market**, which enables energy trading across EU Member States under a common regulatory framework, is a key asset for the European Green Deal. Competitive and integrated European energy markets are critical to ensuring the objectives set by the Energy Union in terms of affordability, decarbonisation and security of supply. With the increasing share of renewable electricity, growing use of renewable and decarbonised gases, and decentralised energy production, **a key challenge for the period 2020-24 will be to facilitate a better integration of the electricity, gas and heat markets** as well as promoting and further developing the integrated and cross-border nature of the world's largest integrated energy market. Completing the Internal Energy Market will represent the most cost-effective way to ensure secure and affordable supplies to EU citizens. A regular monitoring and reporting on the evolution, drivers and impact of energy prices and costs (through the biennial **Energy Prices and Costs reports**) will increase transparency and understanding of the internal market and help to support and assess the EU energy and climate policies.

The affordability of energy can be further ensured **by prioritising energy efficiency in all stages of the energy chain** from generation to final consumption and in all sectors. Consistent application of the energy efficiency first principle helps identify cost-effective energy efficient solutions taking considering their co-benefits and as a result enable affordable, secure, reliable and clean energy for all Europeans. Decoupling energy use from economic growth even further means that our economies, companies and citizens can benefit from the growth in a secure and sustainable manner.

From the "hardware" perspective, an interconnected European energy grid is vital for Europe's energy security, for more competitive prices as well as for better achieving the energy and climate policy targets which the European Union has committed to. DG ENER

² Renewable Energy Directive (EU) 2018/2001

will propose a **modernisation of the Trans-European Network for Energy** regulatory framework and continue to play a vital role for the implementation and further development of the Projects of Common Interest (PCIs). The InvestEU Programme, complementing the existing funding available from the Connecting Europe Facility, will further support energy infrastructure projects in the coming years.

From the "software" perspective, a thorough implementation of the new electricity market design adopted in 2019 is necessary to achieve the objectives of the Energy Union and deliver the European Green Deal. The electricity market, in particular, needs to provide investment certainty, fully integrate all market players including renewables, energy storage facilities, and demand response and allow electricity to move freely to where it is most needed. Key in this context is to reach the target set by **Electricity Regulation** (EU) 2019/943 that by end of 2025, 70% of the capacity of cross-border electricity interconnectors are made available for electricity trade according to market signals and fundamentals.

Secure energy

A secure and safe Union's energy system is a precondition for the economic recovery and the acceptance and success of the energy transition required by the European Green Deal. One of the lessons of the COVID-19 pandemic has been to remind that in time of crisis energy is critical and that its supply chains are fragile. **DG ENER will therefore step up efforts to strengthen the resilience of the energy system and its supply chains.**

Drawing from the COVID-19 lessons, DG ENER will ensure that plans and procedures stemming from the **EU framework on electricity risk preparedness and gas security of supply** are adapted for potential energy crisis and promote solidarity between Member States. In this vein, a review will be made to assess whether the rule on oil emergency stocks are still fit for purpose in a post-COVID-19 world. Another priority as part of the Security Union Strategy will be to reinforce the protection of critical energy infrastructure against new threats, including cyber and hybrid threats, by sector-specific rules adapted to the characteristics of the energy sector. This will lead to a new initiative to improve the resilience of critical energy infrastructure against physical, cyber and hybrid threats and to technical rules specifically to strengthen the cybersecurity of cross-border flow. DG ENER will promote a greater strategic autonomy of the Union in the diversification of the energy sources and by the securisation of supply chains of critical technologies and materials which are essential for the energy transition. This will require integrated actions with the industrial policy and a screening of the attempts by foreign investors to take control of energy strategic assets, on order not to undermine our security.

A critical success factor for the transition towards decentralised and variable renewable sources based energy system is the deployment of **energy storage**. In this vein, a strategic priority will be to follow-up on the study published in April 2020 on the contribution of energy storage to security of supply and the resolution of the European Parliament on the subject. As regards safety, DG ENER will develop and implement the **strategy to reduce the leakage of methane emissions**, which are not only operationally dangerous in energy, but also with very negative impacts on climate change.

A follow-up to the Commission's report on the **safety of offshore oil and gas platforms** will also be needed in particular as regards their environmentally friendly decommissioning.

The **Long Term Strategy for a climate neutral economy** shows that by 2050 more than 80% of electricity will be coming from renewable energy sources. Together with a nuclear power share of ca. 15%, this will be the backbone of a carbon-free European power system. The role of the Commission in the field of nuclear energy focuses on achieving the highest standards in nuclear safety, management of radioactive waste and spent fuel, radiation protection and nuclear safeguards. This is fully reflected in the mission letter of the President to the Commissioner for Energy.

In the field of **nuclear safety**, the Commission will review the progress made with the implementation of the Nuclear Safety Directive and submit a report to the Council and European Parliament. It will work on the second Topical Peer Review on nuclear safety, in close collaboration with regulatory authorities within ENSREG.

A Commission's strategic priority is to guard that Member States implement the **Radioactive Waste Directive** effectively, by accelerating in particular the search for solutions and realisation of final waste disposal. Decommissioning, waste classification schemes and management of financial resources will be focus areas. EU funding via the **Nuclear Decommissioning Assistance Programme** will be leveraged to support the European industry, based on a modern vision of the reuse of materials and assets of large end-of-life industrial facilities. The Commission will also work on the effective and coherent implementation of **nuclear emergency preparedness and response**. It will continue to operate the ECURIE system for the exchange of urgent information in case of a radiological emergency, and the EURDEP system for the exchange of radiation monitoring data.

In the area of **nuclear safeguards**, the Commission will monitor that the use of civil nuclear materials is not diverted from their intended uses. The Commission's safeguards verification activities continue to ensure citizens that nuclear material is correctly managed and that safeguards obligations stemming from the Euratom Treaty and from agreements concluded with the IAEA and third states are correctly implemented. The Commission's safeguards service will continue to address several challenges over the coming years, including the ever increasing amount of nuclear materials in the EU, the decommissioning of reactors and the construction of encapsulation plants and geological repositories in several Member States. The Commission will conduct an evaluation/impact assessment of the Euratom Safeguards Regulation (302/2005) in view of a possible revision.

Energy strategy and implementation

A key strategic objective for the DG ENER will continue to be the **steering of national energy and climate policy** towards the achievements of 2030 energy targets and climate neutrality by 2050, as well as the increased 2030 climate target. DG ENER will also aim at preparing Union measures on the basis of solid evidence in a way that they support the achievements of those targets, notably on the basis **of National Energy and Climate Plans**. DG ENER aims at consistent energy strategy and legislation in view of the

achievement of the EU targets, relying on foresight capabilities and a continuously developing knowledge base. DG ENER will therefore need to strengthen its strategy, policy and planning capabilities to ensure that all planned initiatives are coherent and developed in a timely manner.

DG ENER will ensure that energy legislation delivers on the ambition to reduce GHG emissions for 2030 by 50-55% set in the European Green Deal and in the **2030 Climate Target Plan**. Reaching the climate neutrality objective means increasing further the ambition level established by the Clean Energy for All Europeans Package based on impact assessments. To this end the Commission will combine top-down regulatory measures with bottom-up enabling initiatives that accelerate the uptake of policies throughout the society and contribute also to the European Climate Pact.

The Commission will continue to assess on a yearly basis collective progress made in its **State of the Energy Union** and, if necessary, propose policy actions and measures to ensure the delivery of the Energy Union objectives.

DG ENER will continue to ensure that the **administrative burden** is reduced for Member States, citizens and business and consider **regulatory simplification** whenever possible building on the ongoing revision of the Trans-European Networks for Energy Regulation and on previous the successful **Regulatory Fitness and Performance Programme (REFIT) exercises** which led to the revision of the Renewable Energy and Energy Performance of Buildings Directives as well to a major streamlining of planning, monitoring and reporting obligations on energy and climate for Member States with the Regulation on the Governance of the Energy Union and Climate Action.

Specific Objective 2: **Buildings and renovations** are performed in an energy and resource efficient way and the **Energy Efficiency First principle** is applied in energy investment decisions in the Union

Prioritising energy efficiency in all stages of the energy chain from generation to final consumption and in all sectors helps to decarbonise the whole energy system cost-effectively, a key prerequisite of reaching the Union's climate and energy objectives. Putting **energy efficiency first** also enables affordable, secure, reliable and clean energy for all Europeans. Decoupling energy use from economic growth even further means that our economies, companies and citizens can benefit from the growth in a secure and sustainable manner.

With the building sector being the largest single energy consumer in Europe, the Commission will adopt the **"Renovation Wave"** initiative focusing on public and private buildings. It will include a strategic Communication founded on an integrated approach across policy areas and an action plan with concrete measures to address the main barriers and to achieve faster and deeper renovation in order to gradually trigger at least a doubling of current renovation rates. The Communication will consider legislative and non-legislative instruments and enabling tools, financing and non-financing aspects, will zoom into focus areas (including schools, hospitals, social housing and energy poverty) and envisage multi-level actions. This initiative has a central role in the Recovery Package proposed by the Commission. Financial support for building renovation will benefit from a doubled in size sustainable infrastructure window in InvestEU and funding from the Recovery and Resilience Facility.

The Union set its energy efficiency target to decrease by 2030 its energy consumption, both in terms of primary and final energy consumption, by at least 32.5%, compared to projections made in 2007. Against the background of the Union goal to become the world's first climate-neutral continent by 2050 and increase its climate ambition by 2030, **the Commission will evaluate whether the 2030 energy efficiency target should be revised upwards**. In this context, the Commission will review and, if necessary, revise the Energy Efficiency Directive to provide effective tools and measures to further contribute to the EU's 2030 targets. The review will explore synergies with other key policies, such as the Renewable Energy Directive, the Renovation Wave initiative, EU digital strategy or policies related to water. The revision will be evidence-based following a full evaluation, widely consulted upon and subject to an impact assessment.

In parallel, the Commission will strengthen the **principle of 'energy efficiency first'** and provide guidelines and a tool to turn it into practice, to embed it not only in all policy initiatives at all levels, but also in all investment decisions and in international energy and climate diplomacy. This will help to find sustainable solutions across sectors to achieve decarbonisation at the lowest possible cost and to reach the clean energy transition.

The **heating and cooling sector** requires a systemic approach where energy efficiency and renewable energy go hand-in-hand to enhance technical feasibility and lower the costs

of decarbonisation. The Commission will review existing incentives for energy efficiency in heating and cooling in order to reflect the 2050 decarbonisation objectives and the need for wider integration of highly-efficient decarbonised heating and cooling technologies, waste heat and thermal storage.

Furthermore, the **ecodesign and energy labelling** framework provides a key policy tool to deliver the European Green Deal and the circular economy as regards energy-related products. The Ecodesign Working Plan 2016-2019 will be reviewed for the period 2020-2024 tackling material efficiency issues such as durability and recyclability. Moreover, the circular economy action plan also announces a review of the Ecodesign Directive. In shops, the first products with rescaled energy labels showing an A to G scale will appear from spring 2021. This introduction will be supported by educational and promotional campaigns and will support the achievement of the Sustainable Development Goal 12³ of ensuring sustainable consumption and production patterns.

The Commission will develop an **Energy Efficiency Financing Strategy**, which will ensure the right financing framework and the appropriate tools to stimulate investments in energy efficiency. This will help to close the investment gap and facilitate the achievement of the EU energy efficiency targets, providing support to Member States and market actors to develop large scale energy efficiency investments. The Commission will develop dedicated EU financing products and advisory services under InvestEU, and will support the mainstreaming of financing for energy efficiency investments and building renovation under the EU funding programmes, in particular under the European Green Deal Investment Plan, the funds from the Recovery and Resilience Facility.

Following the assessment of **National Energy and Climate Plans** where Member States have indicated their strategy and measures to achieve, *inter alia*, energy efficiency goals, the Commission may adopt additional measures to reach the 2030 targets.

The Commission will continue to focus on supporting prompt implementation of energy efficiency legislation, notably **Energy Efficiency Directive** (EED) and the **Energy Performance of Buildings Directive** (EPBD) with transposition deadlines in 2020, to make sure that it is applied correctly in all Member States and that all consumers can fully benefit from their rights. A key element to be enforced and implemented are the national long-term renovation strategies to decarbonise national buildings stocks in line with the EPBD. Furthermore, the Commission will continue steering cohesion policy funding through the **Energy and Managing Authorities (EMA) network**, which brings together representatives of national energy authorities with representatives of managing authorities dealing with energy. The Network aims to help EU countries make the best possible use of cohesion policy funding to support high quality energy projects with a focus on energy efficiency and renewables.

³ <https://sustainabledevelopment.un.org/sdg12>

Specific Objective 3: **Research is mobilised and innovation fostered by designing a modern EU energy system that relies on clean energy technologies and digitalisation**

Promoting competitive clean energy technologies

As highlighted in the Commission's Recovery Plan⁴, research and innovation will play a crucial role in “driving the shift towards a clean, circular, competitive and climate neutral economy”. For clean energy technologies to be market ready, a coherent approach to innovation at EU level is essential. We will need to **frontload sustained Research & Innovation (R&I) funding** for targeted short-term recovery investments aimed at accelerating the uptake of close to market technologies. On the longer term, we need to ensure a **sustained alignment of clean energy technologies innovation actions with policy objectives**. In this regard, a strategic reflection on relevant energy technology areas will be carried out to ensure that joint research & innovation programmes are aligned with the main energy initiatives of the Green Deal. This entails a closer alignment between the National Energy and Climate Plans (NECPs) and the Strategic Energy Technologies (SET) Plan activities, leading to a revision process of the SET Plan priorities and a closer collaboration between Member States representatives from the research and energy sides, ensuring at the same time that Eastern European countries are fully engaged in the process, not to leave anybody behind. This will support the European competitive advantage in clean energy technologies and maintain or further develop value chains, as well as create opportunities for exporting high value-added technologies and bring well-paid jobs across the entire technologies value chain. Special attention will be dedicated to **innovative technologies** needed to decarbonise hard to abate sectors such as transport and energy intensive industry, where significant research & innovation efforts are required to decrease the technology costs, bring them to the market and upscale them massively across Europe.

DG ENER will translate this into the following policy actions by (i) ensuring optimal use of research and innovation instruments; (ii) providing feedback between policy and research projects through analysis and evidence; (iii) coordinating EU, national and private innovation action; (iv) and enhancing international cooperation on clean energy technologies deployment.

Although the main source of EU financial support for research and innovation is the **Horizon Europe** program, a variety of complementary instruments will be available over the next seven years, including InvestEU, the Innovation Fund and LIFE. DG ENER will build on these by publishing the “Clean Energy Transition – Technologies and Innovations Report”, a **common ground of evidence on the technology and innovation needs** to reach our 2030 and 2050 objectives according to the most recent modelling scenario. This outlook will provide the status of existing clean technologies, their components and position within the value chain, and the EU energy technology industry's position on global markets in order to assess the current and future competitiveness of the European clean technologies

⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0456&from=EN> (page 6)

industry. A European level process of this nature can contribute to efforts at Member State level to prioritise their research initiatives taking into account the EU recovery package and better align them to national energy and climate targets, as well as with private sector activities. This will also help to orient private investments toward climate solutions, as 80% of R&I funding comes from the private sector. In order to support the commitments and initiatives from the private sector, the Commission is considering involving companies and investors willing to increase their level of R&I spending in clean energy technologies, solutions and their rapid deployment in view of establishing a possible **Investment Alliance on Clean Energy Transition**. With respect to **feedback between policy and research projects through analysis and evidence**, the Commission will work to ensure that practical experiences, technologies and innovations developed or proven in such projects, provide input for policy discussions, for example in relation to new policy measures or in relation to implementation modalities. At the same time, interaction between policy and research aims to enhance the impact of projects by promoting a policy and legislative framework that is conducive to investments in the technologies and innovations developed.

The Commission will also continue working at **international level** to strengthen the R&I collaboration on the development and deployment of clean energy innovative technologies. The involvement in strategic fora as the Clean Energy Ministerial and the Mission Innovation will remain cornerstones of this effort.

Fostering digital technologies for the EU energy system

DG ENER will continue working with DG CNECT on research & innovation projects that use **digital technologies** to increase the capacity of the system to integrate renewables in an energy-efficient way. Cooperation between R&I projects will continue to create a common view on the markets for flexibility of the future, and to develop common data exchange and governance to enable such markets. The Bridge initiative, as mentioned above, will be key to promote energy system integration, creating a common view on the markets for flexibility of the future, and to develop common data exchange and governance to enable such markets.

Acknowledging that hydrogen is a key enabler of energy system integration, DG ENER will steer R&I on **clean hydrogen** production, distribution, storage and end-use, in close cooperation with DG RTD, DG MOVE, DG CLIMA and DG GROW. This will be done mainly by promoting energy policy priorities in the multi-annual work programme and in the annual work programmes of the Clean Hydrogen Partnership and ensuring its coordination with the other relevant partnerships proposed under Horizon Europe (e.g. on transport and industry).

Developing nuclear fusion energy technologies (ITER)

In the **nuclear energy sector**, research and innovation efforts will focus in particular on (i) safety to help securing the long-term operation of existing nuclear reactors; (ii) safe management of radioactive waste and decommissioning; and (iii) efficiency and competitiveness of safety technologies. The Commission will further support effective medical uses of nuclear and radiation technology in order to maximise their benefits, whilst providing high standards of quality and safety to European citizens. In the framework of

the “Europe’s Beating Cancer Plan”, the Commission will prepare a ‘Strategic Agenda for Medical Ionising Radiation Applications’ (**SAMIRA**), on securing the supply of medical radioisotopes, improving radiation safety and quality for patients and facilitating innovation.

The **International Thermonuclear Experimental Reactor (ITER) project**, which aims to demonstrate the feasibility of fusion as a viable source of energy, will also play an important role in the transition to a climate neutral energy system by 2050. Procurement of high-tech components to industrial actors is an essential element of the project, and has a significant impact on industrial competitiveness and job creation. Through their participation in ITER, European high-tech industry and construction companies are gaining a competitive advantage in the design of the first generation of fusion power plants. There are also important spin-off effects of these state-of-the-art technologies on other industrial sectors.

Specific Objective 4: **All stakeholders are involved and a Just transition is ensured** by enabling energy consumers being at the heart of the clean energy transition and ensuring that no one is left behind, building on the European Climate Pact

As the ambition level of energy policies rises, the need to communicate, convince and engage all levels of governance, companies, consumers and civil society becomes ever more important. The UNFCCC acknowledges this in the context of the Paris Agreement and so does the **UN Sustainable Development Goal 11**⁵ that calls for making cities inclusive, safe, resilient and sustainable and **UN Sustainable Development Goal 9** that aims at more sustainable industries and innovation.

Bottom-up local initiatives have a clear potential to accelerate the uptake of clean energy technologies and test new approaches to efficiently implement the clean energy transition on the ground.

The Commission will continue supporting the **Covenant of Mayors for Energy and Climate** and aim at increasing the role of the initiative in terms of supporting local authorities to commit to more ambitious energy and climate goals (including the ultimate objective of reaching climate neutrality at city-level) as well as finding adequate synergies with other initiatives (Platform for Coal Regions in Transition, Clean Energy for EU Islands Initiative).

The Clean Energy Package acknowledges the role **Energy Communities** can play in boosting consumer empowerment and in speeding up the clean energy transition. The Commission will continue supporting the development of Citizen and Renewable Energy Communities. A pilot project for Energy Communities will start in 2020 to accelerate their development. The objective is to monitor and collect data on the development of energy communities in the EU and to facilitate the exchange of best practices in order to accelerate the uptake of such initiatives.

DG ENER remains fully engaged to increase the tools and incentives at the disposal of energy consumers to participate in the market and profit directly from increased competition. In line with the priorities which are reflected in the Communication delivering a **New Deal for Consumers** of July 2015, the Commission will work to remove the remaining obstacles which prevent competition in retail markets and to facilitate active participation of consumers in energy markets, including through demand response or self-generation. Continued attention will be paid to effective protection of consumers, including in new situations of vulnerability related e.g. to data security and privacy. To this effect the Commission will work on a dedicated initiative to empowering citizens and support their actions, also at the local community level, to take part in the energy transition.

⁵ <https://sustainabledevelopment.un.org/sdg11>

In all these initiatives, the support of the **LIFE programme**, and more specifically of its Energy sub-programme will be leveraged to maximise EU assistance to most relevant projects and initiatives.

The Commission intends to enhance engagement with the private sector, for instance in the form of a possible new alliance for **European businesses** and investors committed to **clean energy transition**. This could complement the city initiatives by inviting the business sector to commit to mainstreaming clean energy, energy efficiency, renovation and demand response solutions into their business processes. A possible Alliance for Clean Energy Transition would offer companies and investors also a challenge to increase their R&I spending in clean energy technologies in line with SET Plan goals, while ensuring a close interface with the European Climate Pact..

It is important to acknowledge that the path to climate neutrality is steeper for some regions and sectors, and that not all Member States, regions and communities have the same starting point. Indeed, the clean energy transition represents a particularly significant challenge in territories that have a strong dependency to carbon-intensive energy generation (coal, lignite, peat and oil shale regions, as well as non-interconnected islands). For this purpose, the Commission will build on existing initiatives focusing on most affected territories and sectors to develop its approach to **'Just Transition' issues**. Such initiatives notably include:

- **Initiative for Coal Regions in Transition:** the Commission will continue developing the activities of the Initiative for Coal Regions, notably by integrating the initiative under the Just Transition Platform, coupling the initiative to the implementation of the Just Transition Mechanism and Fund (led by DG REGIO) and covering new countries and regions so far not included under the initiative (peat, oil shale regions). Technical assistance will be provided to regions in order for them to develop mature, implementation-ready clean energy plans and projects.
- **Clean Energy for EU Islands Initiative:** the Commission will continue to provide support to islands wishing to decarbonise their energy systems. A secretariat will continue to provide technical assistance to islands in order to develop and implement their decarbonisation plans. The Commission will also work with national administrations and regulators to tackle legal and regulatory barriers and to streamline access to available funding.
- **EU Energy Poverty Observatory and alleviating energy poverty:** the Commission will maintain the web portal that gathers data and knowledge existing in varying degrees across the EU on energy poverty until 2024. The Observatory will continue to enable networking and the sharing of best practices among stakeholders. Notably, the 2020-2024 period will see an increase in the Observatory's engagement in the provision of technical assistance to local authorities combatting energy poverty. In addition, the goal of alleviating energy poverty will be promoted through various legal instruments, such as the implementation of the Energy Union Governance, Energy Efficiency Directive, Energy Performance of Buildings Directive and the Renovation Wave.

Specific Objective 5: **The EU acts as energy global leader** by contributing to an increased ambition for clean energy produced and used in third countries

The Commission will strengthen the external dimension of its European Green Deal to support a just transition globally. It will do so by strengthening EU's Green Deal Diplomacy in cooperation with Member States, promoting climate policy considerations in its external and trade policies, and mainstreaming climate and clean energy transition related priorities in the EU budget (at the level of at least 25%).

External energy policy under the new 'Green Deal diplomacy' should help increasing our global competitiveness, technological leadership in clean energy technologies, resulting in socio-economic benefits.

The Commission will aim at **promoting EU models, policies, expertise and technologies** in order to convince third countries to advance with the clean energy transition and to support international competitiveness of EU companies.

Actions will promote the **establishment of a climate neutral 2050 and the decarbonisation trajectory**. This includes design and regulation of markets accommodating large shares of renewables, the large-scale investment in energy efficiency and renewable energy and new renewable fuels, clean energy technologies and innovation. It should also foster the crucial contribution of research and innovation to the clean energy transition, and promote mobilisation of sustainable finance in support of clean energy transformation. The EU should tackle the concern for a just clean energy transition which leaves no one behind, based on EU's experience.

The above agenda will require strong private sector engagement. The Commission will continue to work toward ensuring a level playing field in third countries and will seek to advance opportunities for **EU clean energy investments** through energy dialogues.

Advocating the clean energy transition, and its supporting policies and targets, will also be the prime objective of the EU's engagement in international organisations and multilateral fora. The EU external energy action will deploy instruments targeted at the national, regional, local levels of governments. EU initiatives like the **Global Covenant of Mayors, Coal Regions in Transition, Smart Cities** and **Clean Energy for EU Islands** can drive the development of such actions also internationally. A sister initiative to the EU initiative for Coal Regions in Transition will be developed, targeting coal regions in the Western Balkans and Ukraine.

Financial flows currently spent on fossil fuel imports need to shift towards investments in energy efficiency, renewables and energy system infrastructure. The clean energy transition will create new trade patterns and traditional relations will have to be rebalanced. Engagement with fossil fuel producers will remain important to secure a diversified energy supply in the short and medium term while ensuring at the same time that such engagement is accompanied by promoting and aligned with the European Green Deal objectives.

Reducing the EU's critical external energy dependence and increasing its influence on energy supply remain key considerations. Given the fast-changing landscape of the global energy sector, energy security will continue to be rigorously pursued by further diversifying sources, suppliers and routes of energy imports to ensure competition on the EU market and by exploring ways of increasing the EU's bargaining power vis-à-vis external suppliers. The EU will continue its active participation in international mechanisms for supply security and promote a rule-based energy order and open, transparent energy markets.

The EU will also give due attention to new risks and dependencies that potentially come with the clean energy transition, such as those related to supply of critical raw materials, or cybersecurity of an increasingly digitalised energy infrastructure. Effective screening of **Foreign Direct Investment in critical EU energy infrastructure** will be supported. The EU will continue to contribute to strengthening international nuclear safety and the diversification of nuclear energy supplies.

Actions will focus on **energy cooperation with neighbouring countries** (Western Balkans, Eastern Partnership, Union for the Mediterranean), with **key emitters**, such as China and India, and with the US and Japan as **key partners**. It will reinvigorate the Energy Community and achieve progress in modernising the Energy Charter Treaty. Relations with Russia will be reframed when the conditions are right. Deeper energy cooperation between the EU and Africa will remain at the core of DG ENER priorities for the years to come. Finally, the Commission will continue timely implementation of the Intergovernmental Agreements (IGA) Decision and promote the use of the Euro in international energy trade as appropriate.

The Commission will continue to **promote energy efficiency, renewables and hydrogen at the international level**. In the context of energy efficiency, it will be involved in the **energy efficiency HUB** hosted by the IEA. DG ENER will also continue to foster regional cooperation for a cost-effective development of renewables, in particular through regional fora such as the **Baltic Energy Market Interconnection Plan** (BEMIP), the **North Sea Countries energy cooperation and the Central and South-Eastern Europe Gas Connectivity** (CESEC). It will stress the international dimension of renewables in organisations such as **IRENA**, the **Energy Community** and the **EEA**, and in treaties such as the Energy Charter Treaty.

DG ENER will strengthen its leading role in international initiatives related to hydrogen, notably in the context of the **CEM Hydrogen** Initiative and, in close collaboration with DG RTD, in the **International Partnership for Hydrogen in the Economy** (IPHE).

Strengthening nuclear safety and security of nuclear supplies

DG ENER will continue to contribute to strengthening **international nuclear safety** and the diversification of nuclear energy supplies. The EU's forerunner role in binding nuclear safety legislation will be the basis of further bilateral exchanges and international

cooperation in the multi-lateral setting of the **International Atomic Energy Agency** (IAEA), the **G7** and the **OECD Nuclear Energy Agency** (NEA).

DG ENER will continue to represent Euratom and prepare appropriate reporting to review meetings of international conventions in the nuclear field to which Euratom is a party. These include, in particular, the **Convention on Nuclear Safety** (2020 and 2023), the amended CPPNM⁶ (2021) and the **Joint Convention**⁷ (2021 and 2024).

Nuclear safety in third countries will also be enhanced through the organization, in cooperation with **ENSREG**, of peer reviews of nuclear power plants in the broader region. Expected peer review exercises would cover new or existing nuclear power plants in Belarus, Turkey, Iran and the United Arab Emirates. The Commission will also pursue efforts contributing to the implementation of the Joint Comprehensive Plan of Action (JPCOA) with Iran, including Annex III on civil nuclear cooperation.

The Commission will continue to guarantee, under the **safeguards provisions of the Euratom Treaty**, that nuclear materials entering the EU comply with the Treaty on the Non-Proliferation of Nuclear Weapons, as well as with bilateral cooperation agreements.

External factors

DG Energy measures progress towards these objectives using impact and result indicators. It is important to note that implementation of the policy priorities (achieving objectives and seeing improvements in the indicators) does not only depend on the Commission. It is for the European Parliament and Council to decide on the Commission's proposals and then primarily for the Member States to implement them. In addition, there are external factors that are outside the scope of the Union's competence and can have a significant influence on energy policy development. Those external factors include, but are not limited to (i) the dynamic situation relating to global energy demand mostly driven by the economies in China, India and the Middle East; (ii) technological improvement, such as those driving cost reductions in renewable energy and those that have led to the "shale gas revolution", that might have an impact on energy price fluctuations; (iii) unforeseen natural or geopolitical events that may influence European energy policies as well as public opinion; (iv) the long-term impact of the COVID-19 crisis as well as the recovery plans.

⁶ Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, as amended in 2016 (CPPNM).

⁷ Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

D. Key performance indicators

KPI 1: Final energy consumption

Explanation: Final energy consumption covers the total energy consumed by end users, such as households, industry and agriculture. It is the energy which reaches the final consumer's door and excludes that which is used by the energy sector itself. Expressed in million tonnes of oil equivalent (MTOE)

Source of data: Eurostat (Eurostat online source code: sdg_07_10)

Baseline (2017)	Interim milestone (2020)	Target (2030)
988 MTOE (for EU27_2020)	959 MTOE (for EU27_2020)	846 MTOE (for EU27_2020)

KPI 2: Completion of EU Market Coupling

Explanation: The indicator measures the status of the expansion of EU-wide electricity market coupling (i.e. central trading platform) for “day-ahead” and “intraday” electricity trading,

Source of data: DG ENER & ACER

Baseline (2019)	Baseline (2019)	Baseline (2019)
Market coupling for electricity trade in the “intraday” and “day-ahead” timeframe not completed in parts of Europe (notably South-East Europe).	Market coupling for electricity trade in the “intraday” and “day-ahead” timeframe not completed in parts of Europe (notably South-East Europe).	Market coupling for electricity trade in the “intraday” and “day-ahead” timeframe not completed in parts of Europe (notably South-East Europe).
20 borders coupled for day-ahead trading; 21 borders coupled for intraday trading.	20 borders coupled for day-ahead trading; 21 borders coupled for intraday trading.	20 borders coupled for day-ahead trading; 21 borders coupled for intraday trading.

KPI 3: National Energy and Climate Plans (NECPs) implement European Green Deal and EU post-2020 energy and climate goals, and thereby contribute to economic recovery

Explanation: Under the Governance Regulation Member States are required to submit progress reports every 2 years starting in 2021 and an updated NECP to the Commission by 2024. The indicator measures how Member States (MS) - via their progress reports and revised NECPs - implement their national energy and climate policies to contribute towards the achievements of EU 2030 energy and climate targets and climate neutrality in 2050, including increased ambition level for 2030, thereby contributing to economic recovery.

Source of data: DG ENER

Baseline (2019)	Interim milestone (2023)	Target (2024)
Final NECPs detailing existing and additional policies and measures to be implemented in the period 2020-30	100% of the policies and measures introduced by MS, reflected in their NECP and Integrated Progress Reports, are in line with the European Green Deal objectives and contribute to the economic recovery	100% of the policies and measures introduced by MS in their revised NECPs are in line with the European Green Deal objectives and thereby contribute to the economic recovery

KPI 4: Estimated risk at closure

Explanation: The authorising officer by delegation has reasonable assurance that resources have been used in accordance with the principles of sound financial management, and that cost-effective controls are in place which give the necessary guarantees concerning the legality and regularity of underlying transactions

Source of data: DG ENER Annual Activity Report

Baseline (2019)	Target (2024)
0.01%	< 2% of relevant expenditure

PART 2. Modernising the administration

As a modern public administration, the Commission implements an internal control framework inspired by the highest international standards. The Commission's system covers all the principles of internal control identified in the Committee of Sponsoring Organisations of the Treadway Commission 2013 Internal Control framework, including financial control, risk management, human resource management, communication and the safeguarding and protection of information. DG ENER has established an internal control system tailored to its particular characteristics and circumstances, and regularly assesses its implementation and overall functioning. This assessment is based on indicators, the most strategic of which are listed in this section of the strategic plan.

The European Commission Digital Strategy (ECDS), adopted by the College in November 2018, proposes a vision to transform the Commission into a truly digital administration. The Strategy describes how the Commission can use new ways of working and emerging digital technologies to support its political priorities.

In the context of this Strategy, the Commission will produce a Modernisation Plan that will take into the consideration the modernisation roadmap of DG ENER. With the implementation of the Modernisation Plan, the Commission will become a digitally transformed, user-focused and data-driven administration by 2025.

To contribute to the corporate Modernisation Plan, DG ENER will define a local modernisation roadmap. The roadmap will provide the topics chosen by DG ENER Senior Management for modernisation with a multi-annual implementation timeline.

In order to ensure the effective management of human resources and to optimise the capacity to deliver on priorities in this strategic plan, DG ENER will develop a local HR strategy with a medium to long-term outlook (3–5 years) consistent with the overall corporate HR strategy. DG ENER is also ready to actively contribute to the definition of the future corporate HR strategy. DG ENER will be particularly interested in ensuring that the right profiles are targeted and recruited within short deadlines in order to be able to provide the right replies to DG ENER challenges. The needs also include creating the conditions for Luxembourg to become an attractive place to work. DG ENER will pursue its efforts towards more transparency in the information flows, knowledge sharing and collaboration within the DG and with other services. DG ENER will engage staff on a regular basis, empowering internal talents to suggest actions through dedicated networks, large consultations and to share technical knowledge through in house trainings and workshops. Special attention will be given to female colleagues to support them in engaging in management career but also, in particular in Luxembourg, joining specific technical fields.

DG ENER's activities are supported by horizontal activities which aim to foster an effective and efficient working environment and to ensure that these activities are well integrated with and given due visibility in the Commission's overall policy agenda.

Efforts will be made to improve the risk orientation, to promote the use of collaborative tools and practices, knowledge sharing and a dynamic allocation of resources in relation to

key controls such as budgetary planning, financial control, supervision of entrusted entities and risk management. DG ENER will take the necessary measures to ensure the funding of the DG's policy activities and the reallocation according to evolving priorities. It will secure the compliance with budget rules, the monitoring of implementation and the timely reporting on budgetary issues to management, to the Commission and to the Budgetary Authority.

In addition, DG ENER has set up internal control objectives and will be systematically examining the available control results and indicators, including those aimed at supervising entities to which it has entrusted budget implementation tasks.

DG ENER is represented on the agencies' Executive or Management Boards and in Committees by its services. It participates in the work of agencies' Executive or Management Boards and in Committees dealing with core businesses, management and financial issues. When needed, DG ENER provides technical advice and assessment of agencies' matters affected by EU procedures and rules. DG ENER's supervision focusses on detecting and preventing issues which could hinder agencies' capacity to fulfil their mandate, depending on the risk at stake. DG ENER is also closely monitoring the audit recommendations from the IAS and the European Court of Auditors (ECA).

Furthermore, DG ENER will systematically take stock of the yearly assessment of these controls and examine the available control results and indicators, including those aimed at supervising entities to which it has entrusted budget implementation tasks and the recommendations stemming from IAS and ECA reports. By doing so, DG ENER will aim at drawing lessons from past experience and strive for a continuous improvement of its systems.

With the ultimate goal of protecting the EU budget against corruption and fraud and in the frame of sound and financial management, DG ENER fully supports the efforts of the Corporate Management Board, OLAF and DG BUDG for all actions undertaken to preserve the financial interest of the European Union.

This section lays out the expected control results and other relevant elements that support the management assurance on the achievement of the internal control objectives⁸.

A. Human resource management

DG ENER will put particular emphasis in creating the conditions to reach 50% of female middle managers. A dedicated training programme for women will be set up within the DG, together with communities of practice and networks to ease the exchange of experience and overcome limiting beliefs. Specific attention will be paid to talent management and the management pipeline at all levels, including deputy head of units' posts, as a stepping

⁸ Effectiveness, efficiency and economy of operations; reliability of reporting; safeguarding of assets and information; prevention, detection, correction and follow-up of fraud and irregularities; and adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments.

stone towards management. Thanks to the support of DG ENER equality network, gender and other equality issues will be promoted and lunchtime conferences with talented women, acting as role models, will be organised. A coaching and mentoring programme will be set up to provide individual support to female colleagues.

A committed and creative workforce needs to be fully informed and up-to-date in a changing environment. A learning and development strategy will be set up in order to provide staff, including managers, with relevant expertise and skills to become more agile and be able to respond quickly and efficiently to new political challenges. This strategy will encompass both policy related conferences as well as well-being related topics. Specific attention will be paid to work-life balance to maintain a high level of engagement for all and improve the conditions for women to become managers.

All strategies will be built together with the staff, through extended consultation and making use of dedicated internal networks. The aim will be to involve and make staff co-responsible for the various commitments (assistants network, party organisation, greening the DG, equality, etc.). For all actions, activities will be shared through internal communication tools, be it weekly newsletter, dedicated intranet (MyEner) or collaborative tools (SharePoint). Staff will be encouraged to take ownership of the newsletter, by providing contributions (on the work done but also on recommended readings or social events). Videos of management meeting debriefs will continue being made available on the intranet, together with minutes of all important meetings.

An open staff forum will be organised regularly to share and exchange on working methods and policy priorities. Staff will be regularly asked to provide its feedback on the internal communication tools in order to adapt them as often as necessary to keep them responding to the needs.

Finally, the on-boarding process to ease the integration of newcomers and trainees will be strengthened through welcome sessions, breakfast with the Director General; the views of participants on these activities will be monitored regularly. Staff leaving the DG will be offered the possibility to share experiences and lessons learnt through exit surveys.

Objective: DG ENER employs a competent and engaged workforce and contributes to gender equality at all levels of management to effectively deliver on the Commission's priorities and core business

Indicator 1 [mandatory]: : Number and percentage of first female appointments to middle management positions

Source of data: SEC(2020) 146

Baseline (female representation in management)	Target
(2019)	(2022) ⁹
9 female middle managers (41%)	1 first female appointment (50%)
Indicator 2 [mandatory]: : DG ENER staff engagement index	
Source of data: Commission staff survey [data to be provided by DG HR]	
Baseline	Target
(2019)	(2024)
70%	70%

B. Sound financial management

Objective 1: The authorising officer by delegation has reasonable assurance that resources have been used in accordance with the principles of sound financial management, and that cost-effective controls are in place which give the necessary guarantees concerning the legality and regularity of underlying transactions

In the mission letter addressed to each member of the Commission, President von der Leyen puts emphasis on ensuring sound financial management of the programmes under each Commissioner's responsibility and insists that budgetary spending represents value for taxpayers. This is what DG ENER continues to do on a daily basis. Due consideration will be given to illustrate progress in terms of efficiency, effectiveness and economy in the management of resources and controls in particular in the Annual Activity Report and its Commission-wide follow-up.

DG ENER is responsible for implementing budgetary resources in accordance with the principle of sound financial management, i.e. respecting the principles of economy, efficiency and effectiveness, as framed by the Financial Regulation¹⁰. The respect of these principles is continuously pursued through the implementation of internal control procedures defined per management mode and per stage of implementation (planning, implementing, monitoring and controlling). These procedures, as well as constant support and advising from the financial units, ensure that activities are executed in an efficient and effective manner and according to the principle of economy.

DG ENER has set up internal control processes allowing for an adequate management of the risks related to the legality and regularity of the underlying transactions. This will ensure that the residual error rate is maintained during the 2020-2024 programming

⁹ The target will be revised and extended for the period 2023-2024 by January 2023

¹⁰ Article 33 of the Financial Regulation.

period below 2% of the relevant expenditure. This aspect will be duly reported in the Annual Activity Reports. In addition, throughout the reporting period, DG ENER will closely monitor its internal control system and the deficiencies highlighted by audits and assessments.

One of the financial objectives over the coming period is to further simplify internal processes and to further strengthen internal coordination in order to remove bottlenecks in implementation and improve transparency and accountability in financial management. While electronic workflows are already in place for some of the processes involved in the initiation and validation of budgetary transactions, the objective is to further increase the share of electronic workflows for all financial transactions in the future. Electronic workflows have proven to be reliable and fast – especially in exceptional circumstances – and will contribute to efficiency gains in all financial management processes.

Another objective is to provide more timely and centralised support for management supervision across the DG, for example in preparing and implementing procurement procedures. Through harmonising practices, the risk of errors or failure to comply with the Financial Regulation (and subsequent exceptions or non-compliances) will be reduced. This support will be complemented by more effective controls over contract management and financial circuits. In order to achieve this objective, DG ENER, with the support of the Shared Resource Directorate, will need to move to full use of all functionalities of the Public Procurement Management Mode (PPMT) tool. While ‘e-submission’ was piloted in 2019, full use will imply the roll-out and consistent use of ‘e-request’, ‘e-ordering’ and ‘e-invoicing’.

Finally, smart, regular and reader-friendly reporting on budget planning, implementation and controls will provide accurate and timely information on the available appropriations and their utilisation as a management tool for monitoring the implementation of the budget.

Concerning the internal control system, DG ENER will further improve the timely implementation of audit recommendations to minimise the risk of financial errors or non-achievement of objectives. Regular reporting to senior management will provide the necessary assurance on sound financial management in the DG and in its entrusted entities.

When it comes to the entrusted entities, one of the challenges for the coming years will be to support and assist these entities to implement, operate and enhance their own internal control systems. Another important objective, in collaboration with the entrusted entities, is the fight against fraud in the implementation of new and legacy programmes.

DG ENER is also responsible for the management of assets needed to perform EURATOM safeguard activities in the EU Member States during their whole life cycle, from the reception, to the day-to-day management until their retirement. During the 2020-2024 programming period, the existing cost-effective controls will be further developed to continuously ensure adequate safeguarding of assets.

Objective: The authorising officer by delegation has reasonable assurance that resources have been used in accordance with the principles of sound financial management, and that cost-effective controls are in place which give the necessary guarantees concerning the legality and regularity of underlying transactions

Indicator [mandatory]: Estimated risk at closure

Source of data: DG ENER Annual Activity Report

Baseline (2019)	Target (2024)
0.1%	< 2% of relevant expenditure

Objective 2: The budget preparation, implementation and regular monitoring throughout the budget year will ensure the adequate financing of DG ENER priorities.

DG ENER is responsible for developing activities to reach the objectives set in the mission letter of the Commissioner for Energy and for implementing the initiatives set in the Commission Work Programme. These actions will require adequate financing. Thanks to VIGIE, its collaborative budget planning and monitoring IT system, DG ENER will identify the priority activities within the DG and the related financing needs, including administrative support. It will negotiate sufficient level of funding according to the financial procedures in place. It will monitor the budget execution throughout the year to safeguard the allocation of resources according to priorities. It will secure the compliance with budget rules, the regular use of the corporate IT systems for accounting and for administrative expenditure, in particular the Commission accounting system ABAC. It will ensure the monitoring of implementation and the timely reporting on budgetary execution to management, the Commission and the Budgetary Authority.

In order to enhance the management oversight in DG ENER, a Control Board, chaired by the Director-General, was established at senior management level in 2019. During the reporting period, the Control Board will provide coordination, oversight, advice and strategic orientation on all areas related to internal control, budget, finance, audit and the supervision of agencies and other entities. The Control Board will meet regularly to ensure continuous supervision of the above-mentioned areas and to take the necessary decisions.

Objective 2: The budget preparation, implementation and regular monitoring throughout the budget year will ensure the adequate financing of DG ENER priorities.

Indicator1: Budget execution for commitment appropriations

Source of data: ABAC, VIGIE

Baseline 2019	Target 2024
99.96 %	> 98 %

Indicator 2: Control Board Meetings organised at least twice a year

Source of data: Control Board documents as registered in Ares and published on DG ENER

intranet	
Baseline (2019)	Target (2024)
Once a year	Minimum twice a year

Objective 3: DG ENER develops a comprehensive, solid and effective strategy for the supervision of entrusted entities (Agencies) and contributes to the steering of their operational, administrative and financial activities.

DG ENER is regularly monitoring if the entrusted entities act in compliance with the legal framework and within their mandate.

DG ENER is represented on the agencies' Executive or Management Boards and in Committees by its services. It participates in the work of agencies' Executive or Management Boards and in Committees dealing with core businesses, management and financial issues. When needed, DG ENER provides technical advice and assessment of agencies' matters affected by EU procedures and rules.

DG ENER's supervision focusses on detecting and preventing issues which could hinder agencies' capacity to fulfil their mandate, depending on the risk at stake. Preventive and detective tools mainly result from the systematic risk analysis and reporting, and cover awareness raising (cf. budget programming, including budget preparation and activity planning, as well as execution, all implemented in due respect of the sound management principles), periodic reporting and enhanced capacity (advice, training, exchange of best practices, liaising with the Central Services).

DG ENER is also closely monitoring the audit recommendations from the Internal Audit Service (IAS) and the European Court of Auditors (ECA). In case additional information is needed, DG ENER may propose on-the-spot visits to assist on both financial and technical matters. Additional tools may be designed as appropriate, such as allowing agencies to use the DG framework contracts (legal consultancy).

Objective 3: DG ENER develops a comprehensive, solid and effective strategy for the supervision of entrusted entities (Agencies and Joint Undertakings) and contributes to the steering of their operational, administrative and financial activities.

Indicator 1: Scrutiny of draft budget, Single Programming Document (SPD) and Consolidated Annual Activity Report (CAAR); follow-up on issues identified by IAS, ECA and on actions taken by the entities in respect to these and on the Discharge process

Source of data: Budget and management documents, minutes of the agencies' meetings

Baseline (2019)	Target (2024)
Twice a year	At least twice a year, aligned to timing of the Board, to the other Committee meetings and to the submission of the reports

Indicator 2: DG ENER Control Board meetings organised at least twice a year

Source of data: Update of risk assessment and implementation review	
Baseline (2019)	Target (2024)
Once a year	At least twice a year

C. Fraud risk management

Objective: The risk of fraud is minimised through the application of effective anti-fraud measures and the implementation of the Commission Anti-Fraud Strategy (CAFS) aimed at the prevention, detection and correction of fraud

In preparation for the next EU long-term budget for 2021-2027, the Commission updated its Anti-Fraud Strategy in 2019 (the 2019 CAFS). The aim was to adapt and strengthen corporate anti-fraud measures where appropriate, building on the already existing anti-fraud framework. The 2019 CAFS brought two new priorities for the Commission approach in fighting fraud: (i) measures to build stronger analytical capabilities and (ii) a more centralised oversight mechanism of anti-fraud actions.

DG ENER will continue to fully support these corporate efforts to better protect the EU budget against fraud. In 2020, DG ENER will complete the revision of its own Anti-Fraud Strategy in order to translate the high-level Commission priorities into local actions. The updated document sets out the measures to prevent or minimise fraud in DG ENER's area of responsibility and the steps it will take in response to reported or suspected fraud cases.

In this context, DG ENER's revised Anti-Fraud Strategy is expected to focus on three priority areas, namely:

- Maintaining an ethical environment geared towards fraud prevention through awareness raising, training and communication activities.
- Efficient detection, reporting and handling of fraud, including cooperation with OLAF.
- Increased cooperation with Commission governing bodies and services, common action with Research family services and supervision of autonomous EU entities.

These priorities will be further detailed under specific objectives and concrete actions, which will be listed in a separate Action Plan, in the first instance, for 2021-2022.

DG ENER commits to continuously monitoring the implementation of the Anti-Fraud Strategy and the Action Plan. It will regularly evaluate its fraud environment, determining its overall vulnerability to fraud and assessing fraud-specific risks. It will revise the Antifraud Strategy if it detects any significant changes in its fraud risk environment or if the Commission updates its antifraud approach.

Objective: The risk of fraud is minimised through the application of effective anti-fraud measures and the

implementation of the Commission Anti-Fraud Strategy¹¹ aimed at the prevention, detection and correction¹² of fraud

Indicator 1 [mandatory]: Implementation of the actions included in DG ENER Anti-Fraud strategy over the whole strategic plan lifecycle (2020-2024)

Source of data: DG ENER annual activity report, DG ENER anti-fraud strategy, OLAF reporting

Baseline	Target
2020	2024
95%	100% of actions implemented on time

Indicator 2: Update of DG ENER's Anti-Fraud strategy on the basis of the methodology elaborated by OLAF

Source of data: OLAF guidelines

Baseline	Interim milestone	Target
(2018)	(2022)	(2024)
Date of the last update: 2017	AFS strategy revised in 2020 and 2022	The Action Plan accompanying the Anti-Fraud Strategy will be updated every two years. The Anti-Fraud Strategy will be revised no later than 12 months after major changes in the Commission approach or in the fraud environment of DG ENER.

D. Digital transformation and information management

Objective: DG ENER is using innovative, trusted digital solutions for better policy-shaping, information management and administrative processes to forge a truly digitally transformed, user-focused and data-driven Commission

DG ENER stands behind the objective set out in the 2018 European Commission Digital Strategy¹³ to digitally transform the European Commission by 2025. In support of the corporate efforts, DG ENER has started a review of its own business processes and identified several areas for modernisation.

The DG will focus its efforts on the *Digital by default & Once Only* and the *User-driven, Data-centric, Agility* principles. In particular, DG ENER intends to work on the further integration of its information systems and, where feasible, the implementation of modern user centric solutions to replace the obsolete individual user interfaces. In addition, the DG

¹¹ Communication from the Commission 'Commission Anti-Fraud Strategy: enhanced action to protect the EU budget', COM(2019) 176 of 29 April 2019 – 'the CAFS Communication' – and the accompanying action plan, SWD(2019) 170 – 'the CAFS Action Plan'.

¹² Correction of fraud is an umbrella term, which notably refers to the recovery of amounts unduly spent and to administrative sanctions.

¹³ https://ec.europa.eu/info/sites/info/files/file_import/digitally-transformed-user-focused-data-driven-commission_en.pdf

strives to improve the visual presentation of processed data via state-of-the-art dashboards, business reports and maps.

DG ENER also intends to implement further improvements related to the Interoperability & Cross-border principle by replacing, where possible, the current paper-based workflows with digital procedures and at the same time maintaining a high level of information security standards. DG ENER staff will receive appropriate trainings about the new working methods and will participate in data protection awareness sessions.

DG ENER's Modernisation Plan provides a list of the relevant processes and their modernisation roadmap. This applies both to DG ENER processes managed via corporate IT tools, as well as to processes managed in the EURATOM Secure Network.

With regard to the *Openness & Transparency* principle, DG ENER already applies the 'share-by-default' approach for the reuse of information and documents inside the DG and would like to continue doing so. To ensure that the data is safeguarded nevertheless, the DG will arrange regular data protection awareness sessions for its staff.

As part of the Commission strategy on data, information and knowledge management¹⁴, DG ENER will implement the corporate principles for data governance and review the information sharing and security policy.

To ensure that important information is retrievable, DG ENER intends to maintain the target of HAN¹⁵ registered documents that are not filed in below 2%.

Under the Commission Data Protection Action Plan (C(2018) 7432 final), services are required to set out a plan ensuring that all staff are aware of the requirements of the new Data Protection Regulation.

In addition to the training offer provided by the corporate services through the EU LEARN, DG ENER will provide in-house training to the staff. This will include general awareness sessions open to all staff members including a theoretical part as well as case studies.

DG ENER will also ensure that staff will receive relevant information on data protection training activities organised at Commission corporate level and other entities (e.g. the European Data Protection Supervisor (EDPS)).

The specific registry handling EURATOM restricted information (MEDOR) will continue to be improved to make it more user friendly. A review and limited adjustment of the classification system will take place using the experience of the first 6 years of usage. Medor work-flows will be further enhanced, while promoting paperless, electronic registration and archiving.

Objective: DG ENER is using innovative, trusted digital solutions for better policy-shaping, information management and administrative processes to forge a truly digitally transformed, user-focused and data-

¹⁴ Data, information and knowledge management at the European Commission (C(2016) 6626).

¹⁵ HAN – Hermes ARES Nomcom

Indicator 1 [mandatory]: Degree of implementation of the digital strategy principles by the most important IT solutions¹⁶

Source of data: Solutions Owners & Suppliers and IT Investment Team

Baseline (2019)	Interim milestone (2022)	Target (2024)
1. EPREL 77%	1. 100%	1. 100%
2. e-Platform 45%	2. 100%	2. 100%
3. CMF4 0%	3. 80%	3. 80%

Indicator 2 [mandatory]: Percentage of DG ENER key data assets¹⁷ for which corporate principles for data governance¹⁸ have been implemented

Source of data: DG ENER data asset inventory

Baseline (2018)	Interim milestone (2022)	Target (2024)
N/A	50%	80%

Indicator 3 [mandatory]: Percentage of staff attending awareness raising activities on data protection compliance

Source of data: HR statistics

Baseline (2018)	Interim milestone (2022)	Target (2024)

¹⁶ The European Commission Digital Strategy (C(2018)7118) calls on Commission services to digitally transform their business processes by developing new innovative digital solutions or make evolve the existing ones in line with the principles of the strategy. At the beginning of the year N+1, the Solution Owner and IT Investments Team will assess the progress made on the basis of the proposed modernisation plan. For each of the three solutions, a table will reflect – per principle - the progress achieved during the last year.

¹⁷ A key data asset is defined as any entity that comprises a source of data based on projects or administrative processes, structured or semi-structured in an information system, a database or a repository of data or corpora of text. A data asset can include multiple datasets or files somehow linked, e.g. by common codes or metadata. Commission key data assets have been documented in the data inventory Ares(2019)2586155.

¹⁸ This indicator follows up on the progress of services in implementing corporate data governance and data policies for their key data assets included in the EC data inventory. See [Ares\(2019\)4441343](#) in the context of the [DataStrategy@EC action plan](#). In summary, this means that for each key data asset, services should assess if the following principles have been respected:

- Identify and designate the data owner and the data steward(s).
- Instruct their data stewards to share the metadata of their data assets in the Commission's data catalogue and to keep them up to date.
- Design and document processes for data collection/creation, acquisition, access, sharing, use, processing preservation, deletion, quality, protection and security. Information concerning these processes should be made available to anyone interested, as long as any confidentiality restrictions are respected.
- Make any necessary changes and updates to the IT systems used for storing, managing and disseminating these data assets to implement the aforementioned requirements and processes.

A data governance hub will shortly offer a single point of access on the intranet for related guidance and information. It will be complemented by further practical guidance in the course of 2020.

0%	50%	100% of staff
Indicator 4 : Percentage of registered documents that are not filed		
Source of data: Hermes-Ares-Nomcom (HAN) statistics		
Baseline	Interim milestone	Target
(2018)	(2022)	(2024)
2,39%	<2%	<2%

E. Sound environmental management

Objective: DG ENER takes full account of its environmental impact in all its actions and actively promotes measures to reduce the related day-to-day impact of the administration and its work

The Commission has been implementing the Eco-Management and Audit scheme (EMAS) since 2001. To date, 96% of Commission sites respect the EMAS regulation. Some of the necessary actions to reduce environmental impact – for example in relation to the energy efficiency of buildings – can only be taken by infrastructure services. DG ENER, as member of the Steering Committee of EMAS, contributes actively with local actions promoting more environmentally friendly working methods and by making better use of natural resources.

Promoting staff awareness on the optimal use of resources is key. DG ENER will promote the EMAS corporate campaigns at local level and set local environmental actions, in order to support the Commission to reach its environmental targets in line with the EMAS Global Action Plan 2020 (approved by the EMAS Steering Committee on 31 January 2020).

DG ENER will also participate to some corporate actions, like the end of the year energy saving actions by closing down DG ENER’s building in Brussels during the Christmas and New Year’s holiday period, the VeloMay action and the actions organised during EU Mobility week.

The European Green Deal is one of the headline ambitions of the von der Leyen Commission. In this Communication¹⁹, the Commission committed itself to lead by example also in this field: “The Commission is also keen to reduce its environmental impact as an institution and as an employer. It will present a comprehensive action plan in 2020 to implement itself the objectives of the Green Deal and to become climate neutral by 2030.”

The renovation of the DM24 building is a real opportunity to contribute to the European Green Deal and decrease our energy consumption:

¹⁹ C(2019) 640 final

- For a more efficient use of resources, measures have to be taken to improve the building envelop, to replace or to improve the heating/cooling system, to replace the lighting technology and to replace or to upgrade the ventilation system.
- It is also be a good opportunity to encourage a greener mobility, for instance by converting car parking spaces to bike parking including larger spaces for cargo bikes and installing more charging stations for e-bikes and recharging points for electric cars.

Although those measures do not depend entirely on DG ENER, we will be closely associated to the renovation project managed by OIB.

Finally, DG ENER will try to organise as much as possible meetings and events in line with the Commission’s sustainable events guidelines (approved by the EMAS Steering Committee on 30 July 2018). The newly established internal network, ENER Goes Green, provides advice, debate and ideas in this context.

Objective: DG ENER takes full account of its environmental impact in all its actions and actively promotes measures to reduce the related day-to-day impact of the administration and its work.

Indicator 1 : Percentage of staff informed about the optimal use of resources

Source of data: Internal statistics

Baseline (2019)	Target (2024)
N/A	>90%

ANNEX: Performance tables

Impact indicators

General objective 1: A European Green Deal		
Impact indicator 1: Share of renewable energy in gross final energy consumption		
<p>Explanation: Renewable energy generation is given as the share of renewable energy consumption in gross final energy consumption. The gross final energy consumption is the energy used by end consumers (final energy consumption) plus grid losses and self-consumption of power plants</p> <p>Source of the data: Eurostat (Eurostat online data code: sdg_07_40)</p>		
Baseline (2018)	Interim milestone (2020)	Target (2030)
18.88%	20%	32%
Impact indicator 2: Primary energy consumption		
<p>Explanation: Primary energy consumption covers the energy consumption by end users such as industry, transport, households, services and agriculture, plus energy consumption by the energy sector itself for the production and transformation of energies, losses occurring during the transformation of energies (for example, the efficiency of electricity production from combustible fuels) and the transmission and distribution losses of energy. It excludes energy carriers used for non-energy purposes (such as petroleum not used for combustion but for producing plastics). Expressed in million tonnes of oil equivalent (MTOE)</p> <p>Source of the data: Eurostat (Eurostat online source code: sdg_07_10)</p>		
Baseline (2018)	Interim milestone (2020)	Target (2030)
1376 MTOE	1483 MTOE	1273 MTOE
Impact indicator 3: Greenhouse gas emissions intensity of energy consumption		
<p>Explanation: The greenhouse gas emissions intensity of energy consumption is the ratio between energy-related greenhouse gas emissions and gross inland consumption of energy. It expresses how many tonnes of CO₂ equivalent of energy-related greenhouse gases are emitted per unit of energy consumed. A decrease signifies either burning relatively less fossil fuels or switching to fossil fuels with lower carbon intensity (e.g. from coal to natural gas). Index: 2000 = 100</p> <p>Source of the data: Eurostat (Eurostat online data code: sdg_13_20)</p>		
Baseline (2017)	Interim milestone (2022)	Target (2024)
86.7%	Decrease	Decrease

Result indicators

Specific objective 1: Energy is clean, affordable and secure

Related to spending programme:
Invest EU, LIFE, Connecting Europe
Facility (CEF)

Result indicator: Adoption of the Energy System Integration Strategy and the Hydrogen Strategy

Explanation: This indicator measures the fulfilment of one of the initiatives included in the roadmap of the European Green Deal and the actions which will be triggered

Source of data: DG ENER

Baseline (2019)	Interim milestone (2020)	Target (2024)
Announcement of the Energy System Integration Strategy in the European Green Deal roadmap for June 2020	Adoption of the Strategies	100% of the actions stemming from Strategies are in line with the European Green Deal objectives

Result indicator: Completion of EU Market Coupling

Explanation: The indicator measures the status of the expansion of EU-wide electricity market coupling (i.e. central trading platform) for “day-ahead” and “intraday” electricity trading,

Source of data: DG ENER & European Union Agency for the Cooperation of Energy Regulators (ACER)

Baseline (2019)	Interim milestone (2022)	Target (2024)
Market coupling for electricity trade in the “intraday” and “day-ahead” timeframe not completed in parts of Europe (notably South-East Europe).	Day-ahead market coupling at all EU borders (inclusion of 11 outstanding borders in Single Day Ahead Coupling”) by the end of 2022.	Completion of day-ahead and intraday market coupling at all EU borders.
20 borders coupled for day-ahead trading; 21 borders coupled for intraday trading.	All 25 Member States with interconnector coupled for day-ahead electricity trading.	All 25 Member States with interconnectors coupled for day-ahead and intraday trading.

Result indicator: Adoption and full implementation in line with the European Green Deal objectives of the revised TEN-E Regulation and 6th Project of Common Interest (PCI) list

Explanation: This indicator measures the fulfilment of one of the initiatives included in the roadmap of the European Green Deal including adoption of the Commission proposal, agreement by the co-legislator and full implementation.

Source of data: DG ENER

Baseline (2019)	Interim milestone (2020)	Target (2024)
Current TEN-E framework which, while having broad progress on market integration, security of supply and integration of renewables, is not fully aligned yet with Green Deal objectives.	Adoption of the Commission proposal.	Entry into force and adoption of 6 th Project of Common Interest (PCI) list based on new legislative framework and hence fully in line with the European Green Deal objectives.

Result indicator: National Energy and Climate Plans (NECPs) implement European Green Deal and EU post-2020 energy and climate goals, and thereby contribute to economic recovery

Explanation: Under the Governance Regulation Member States are required to submit progress reports every 2 years starting in 2021 and an updated National Energy and Climate Plan (NECP) to the Commission by 2024. The indicator measures how Member States - via their progress reports and revised NECPs - implement their national energy and climate policies to contribute towards the achievements of EU 2030 energy and climate targets and climate neutrality in 2050, including increased ambition level for 2030, thereby contributing to economic recovery.

Source of data: DG ENER

Baseline (2019)	Interim milestone (2023)	Target (2024)
Final National Energy and Climate Plan (NECPs) detailing existing and additional policies and measures to be implemented in the period 2020-30	100% of the policies and measures introduced by Member States, reflected in their National Energy and Climate Plans (NECPs) and Integrated Progress Reports, are in line with the European Green Deal objectives and contribute to the economic recovery	100% of the policies and measures introduced by Member States in their revised National Energy and Climate Plans (NECPs) are in line with the European Green Deal objectives and thereby contribute to the economic recovery

Result indicator: Share of nuclear material under full scope safeguards verification activities

Explanation: Percentage share of all civil nuclear materials held in the EU subject to accountancy verifications, physical inventory verifications and material balance evaluation

Source of data: Assessment by DG ENER Directorate E

Baseline (2019)	Interim milestone (2022)	Target (2024)
99.94%	Value to be kept above 99.90 %	Value to be kept above 99.90 %

Result indicator: Supporting the highest standards on nuclear safety in the EU

Explanation: This indicator measures the achieved levels of transposition and implementation of the recently adopted Euratom Directives²⁰ in the area of nuclear energy with a view to ensuring nuclear safety, radiation protection, and the responsible management of radioactive waste and spent fuel.

The indicator also measures the progress in the implementation of the EU Nuclear Decommissioning Assistance Programmes in Lithuania, Bulgaria and Slovakia towards the decommissioning end states defined in the relevant detailed plans.

Source of data: Commission's data on the Member States' transposition and implementation of the abovementioned directives, including notified transposition measures, information from Member States received through EU Pilots and infringement procedures, complaints, and Member States' implementation reports as required by the Directives and data provided by nuclear operators.

Detailed/final decommissioning plans; Commission's work programmes; biyearly monitoring reports and inspections; EVM (Earned Value Management) data per each programme.

²⁰ That is the Nuclear Safety Directive - NSD (Directive 2009/71/Euratom, as amended by Directive 2014/87/Euratom); the Basic Safety Standards - BSS Directive (Directive 2013/59/Euratom); the Radioactive Waste Directive - RWD (Directive 2011/70/Euratom); the Shipment Directive (Directive 2006/117/Euratom).

Baseline	Interim milestone	Target
<p>Progress of the implementation of the Euratom legal framework:</p> <p>(2020)</p> <ul style="list-style-type: none"> - Nuclear Safety Directive (NSD) completeness transposition checks finalised; EU Pilots launched on conformity aspects; - Basic Safety Standards (BSS) Directive completeness transposition checks ongoing at advanced level, several infringement procedures pending; <p>- follow-up of open Radioactive Waste Directive (RWD) infringement procedures ongoing;</p>	<p>(2021)</p> <ul style="list-style-type: none"> - Nuclear Safety Directive (NSD) conformity checks completed, i.e. all infringement procedures launched (if any); - Basic Safety Standards (BSS) Directive completeness checks completed, i.e. all infringement procedures launched (if any); - adoption of the 2nd Commission report on the implementation of the NSD; <p>(2022)</p> <ul style="list-style-type: none"> - adoption of 3rd Commission report on the implementation of the Radioactive Waste Directive (RWD); - adoption of 4th Commission report on the implementation of the Shipment Directive; 	<p>(2024)</p> <ul style="list-style-type: none"> - Completeness and conformity checks completed for the Nuclear Safety Directive (NSD), Basic Safety Standards (BSS) Directive and Radioactive Waste Directive (RWD), i.e. all infringement procedures launched (if any) and where possible closed, or in Court;
<p>Second Topical Peer Review (TPR) under the NSD:</p> <p>(2020)</p> <ul style="list-style-type: none"> - Launch of preparatory work 	<p>(2021)</p> <ul style="list-style-type: none"> - decision on the topic of the 2nd Topical Peer Review (TPR); 	<p>(2024)</p> <p>2nd Topical Peer Review (TPR) completed based on the reports submitted by nuclear operators and Member States' competent authorities.</p>
<p>Progress of the EU Nuclear Decommissioning Assistance Programmes:</p> <p>(2020, Q1)</p> <ul style="list-style-type: none"> - Ignalina Programme (LT) Earned Value (EV) = 1252 MEUR (37%) - Kozloduy Programme (BG) EV = 713 MEUR (53%) - Bohunice Programme (SK) EV = 628 MEUR (51%) 	<p>(2023)</p> <ul style="list-style-type: none"> - Ignalina Programme (LT) EV = 1550 MEUR (46%) - Kozloduy Programme (BG) EV = 1057 MEUR (78%) - Bohunice Programme (SK) EV = 1000 MEUR (81%) 	<p>(2024)</p> <ul style="list-style-type: none"> - Ignalina Programme (LT) Earned Value (EV) = 1731 (51%) - Kozloduy Programme (BG) EV = 1146 MEUR (84%) - Bohunice Programme (SK) EV = 1177 MEUR (95%)

Specific objective 2: Building, renovations and application of the Energy Efficiency first principle

Result indicator: Final energy consumption

Explanation: Final energy consumption covers the total energy consumed by end users, such as households, industry and agriculture. It is the energy which reaches the final consumer's door and excludes that which is used by the energy sector itself. Expressed in million tonnes of oil equivalent (MTOE)

Source of data: Eurostat (Eurostat online source code: sdg_07_10)

Baseline (2017)	Interim milestone (2020)	Target (2030)
988 MTOE (for EU27_2020)	959 MTOE (for EU27_2020)	846 MTOE (for EU27_2020)

Result indicator: Final energy consumption in households by type of fuel

Explanation: Final energy consumption in households covers the energy consumption of households (individual dwellings, apartments, etc.) for space heating, water heating, cooling, and cooking as well as electricity consumption by various electrical appliances. Expressed in thousand tonnes of oil equivalent (KTOE)

Source of data: : Eurostat (Eurostat online source code: ten00125)

Baseline (2017)	Interim milestone (2020)	Target (2030)
250.676,313 KTOE (for EU27_2020)	243.156,000 (for EU27_2020)	213.074,000 (for EU27_2020)

Specific objective 3: Research is mobilised and innovation fostered

Related to spending programme(s): Horizon Europe, Invest EU, Innovation Fund, LIFE

Result indicator: Annual publication of the “Clean Energy Transition – Technologies and Innovations Report”, an evidence based analysis of clean energy Research & Innovation priorities

Explanation: One of the priorities is building a common ground of evidence to assess the technology and innovation needs for our 2030 and 2050 objectives, better prioritize the Research & Innovation objectives and, eventually, reduce the overall cost of the energy transformation.

Source of data: internal analysis and stakeholders consultation

Baseline (2020)	Interim milestone annual	Target (2024)
1 report	1 report	1 report

Result indicator: Share of Horizon Europe funds allocated to the following research activities: renewable energy and Carbon Capture, Utilisation and Storage (CC(U)S), buildings & industry, smart grids, energy storage, smart cities and market uptake of energy innovation activities

Explanation: budget allocated to clean energy projects

Source of data: MFF and Horizon Europe programme

Baseline (2021)	Interim milestone (2023)	Target (2024)
Horizon Europe allocations	Share of the energy funds allocated to Cluster 5 (Energy, Climate and Mobility)	Share of the energy funds allocated to Cluster 5 (Energy, Climate and Mobility)

Result indicator: An investment alliance for clean energy transition to boost private investments in R&I and deployment

Explanation: 80% of Research & Innovation funding comes from the private sector, therefore it is crucial for policies to orientate private investments toward climate neutral solutions. As we are keen to support the commitments and initiatives from the private sector to complement those by the public sector, a European alliance of companies and investors willing to increase their level of Research & Innovation spending in clean energy technologies or to deploy available solutions in order to reduce their own carbon footprint will be established.

Source of data: DG ENER, IRENA, Green Recovery call to action.

Baseline (2021)	Interim milestone (2023)	Target (2024)
50	200	250

Result indicator: Clean energy Research & Innovation projects implemented at transnational level to reach the agreed targets under the European Strategic Energy Technology Plan (SET Plan) in Implementation Plans

Explanation: The European Strategic Energy Technology Plan (SET Plan) is a framework to coordinate Research & Innovation actions on clean energy technologies at national and European level. 14 Implementation Plans have been developed, combined with agreed targets to reach.

Source of data: SETIS reporting and monitoring system

Baseline (2016-19)	Interim milestone (2022)	Target (2024)
312 projects launched	400 projects launched	450 projects launched

Result indicator: Percentage of completion of International Thermonuclear Experimental Reactor (ITER) construction until “First Plasma” (First Experiments)

Explanation: This indicator measures the progress of the preparatory construction and installation works of the fusion reactor to be ready for the First Plasma at the end of 2025

Source of data: Bimonthly reports to the ITER Council

Baseline (2019)	Interim milestone (2022)	Target (2024)
68.7%	86% ²¹	95%

Result indicator: Strategic Agenda for Medical Ionising Radiation Applications (SAMIRA)

Explanation: This indicator measures the progress towards establishing and implementing an EU action plan on medical applications of nuclear and radiation technology

Source of data: Progress reporting to be decided at the time of meeting the interim milestone

Baseline (2019)	Interim milestone Q4 2020	Target (2024)
Preparatory work conducted within the Commission’s SAMIRA Inter-Service Working Group	Finalisation of the action plan by the Commission	Implementation in the relevant EU programmes

²¹ These figures are estimates based on the current situation of manufacturing and construction, and they are depending on the adoption of the Commission’s 2018 proposal for continuation of EU financial support to the ITER project under the next MFF (COM/2018/445 final).

Specific objective 4: All stakeholders are involved and a Just transition is ensured

Result indicator: Local authorities are committed to the the Covenant of Mayors initiative

Explanation: The indicator measures the impact of local authorities that have committed to meeting or exceeding the EU headline targets for GHG emission reductions, climate change adaptation and clean energy access. It covers the numbers of signatories, monitored energy consumptions reductions (vs baseline emission inventories in TWh) and annual monitored increase of local energy production from renewable sources (in TWh) compared to baseline year.

Source of data: Covenant of Mayors, JRC

Baseline	Interim milestone	Target
a) (2019) signatories b) 2017 consumption reduction c) 2017 renewable energy	a) 2022 b) 2020 c) 2020	a) 2024 b) 2024 c) 2024
a) 908500 b) 757 TWH c) 191 TWH	a) 11,000 b) 946 TWh c) 232 TWH	a) 13000 b) 1198 TWh c) 511 TWH

Result indicator: Adoption, implementation and revision of just transition plans under the Just Transition Fund

Explanation: The indicator measures the progress achieved in the drafting, adoption, implementation and revision of just transition plans under the Just Transition Fund in coal, peat and oil shale, which will closely involve local stakeholders in beneficiary regions.

Source of data: DG ENER and DG REGIO

Baseline (2020)	Interim milestone (2021)	Target (2024)
Preparatory work conducted in view of adopting the just transition plans by Q1 2021.	100% of just transition plans are adopted and implementation started in all coal, peat and oil shale beneficiary regions	1000% of just transition plans updated based on NECP revision and other developments

Specific objective 5: The EU acts as energy global leader

Result indicator: Modernisation of the Energy Community

Explanation: The EU and Energy Community Contracting Parties are currently in the process of modernizing the Energy Community Treaty in view of bringing the relevant legislation in Energy Community Contracting Parties closer to the EU acquis.

Source of data: Conclusions of the Energy Community Ministerial Council, Reports from Council Energy Working Party meetings, Commission Decisions on Proposals the Council, Decisions of the Council and the European Parliament

Baseline (2020)	Interim milestone (2021)	Target (2024)
Progress towards completion of	Adoption by the Energy	2030 Targets implemented and

Energy Community modernisation negotiations	Community Contracting Parties of the EU 2030 Targets	enforced by the Energy Community Contracting Parties in order to progress towards 2030 Targets and advance towards decarbonisation in line with the EU objectives
<p>Result indicator: Implementation of the Intergovernmental Agreement (IGA) Decision</p> <p>Explanation: In line with the Intergovernmental Agreement (IGA) Decision, the Commission examines the international agreements in the field of energy before they are signed by member states in order to ensure that they are in line with the EU acquis.</p> <p>Source of data: Commission Decisions on the (i) assessment of IGAs notified to the Commission ex-ante or ex-post, (ii) reporting to EU institutions, (iii) optional model clauses and guidance to Member States; Reports from negotiation rounds with Commission as an observer</p>		
Baseline (2020)	Interim milestone (2020-2024)	Target (2024)
Assessment on an ongoing basis of draft Intergovernmental Agreements received from EU member states	Commission decisions on individual draft Intergovernmental Agreements adopted in a timely manner - advising member states on how to ensure compliance with EU acquis, if required	IGAs in the field of energy signed by EU Member States compliant with EU acquis
<p>Result indicator: Energy Charter Treaty (ECT) Modernisation</p> <p>Explanation: The EU seeks to modernise the provisions of the Energy Charter Treaty (ECT) so that it takes account of sustainable development and climate goals, as well as modern standards of investment protection and investor-to-state dispute settlement. The objective of the modernised Energy Charter Treaty should be to facilitate investment in the energy sector in a sustainable way, provide for legal certainty and ensure a high level of investment protection</p> <p>Source of data: Council mandate for the negotiation, meeting reports and Energy Charter Conference, DG TRADE website on the EU proposal for modernising Energy Charter Treaty</p>		
Baseline (2020)	Interim milestone (2022)	Target (2024)
Completion of initial negotiation rounds based on the EU text proposals Progress report on the ECT Modernisation	Make decisive progress in the Energy Charter Treaty modernisation negotiation	Finalisation of the Energy Charter Treaty modernisation negotiations
<p>Result indicator: Continued follow-up of nuclear safety and conduct of stress tests in third countries</p> <p>Explanation: It is necessary to promote the EU's nuclear safety standards internationally. To date, six countries from the broader region (Armenia, Belarus, Iran, Switzerland, Turkey, and Ukraine) have or are currently engaging in the EU's stress test process, carried out in conjunction with the European Nuclear Safety Regulators Group (ENSREG). Specifically, the objective concerns organization of ENSREG peer review of</p>		

national stress test reports and national stress test action plans.

Source of data: European Nuclear Safety Regulators Group (ENSREG)²²

Baseline (2020)	Interim milestone (2022)	Target (2024)
Progressing stress test process in neighbouring countries	<ul style="list-style-type: none"> - Peer reviews of Turkey's and Iran's national stress test reports completed; - Peer review of implementation of Belarus's stress test national action plan complete; - If necessary, preparation of further follow-up peer reviews. 	<ul style="list-style-type: none"> - Peer reviews of implementation of Turkey's and Iran's national action plans underway; - Other peer reviews of neighbouring countries's nuclear power projects to be organised as necessary.

Result indicator: Global Covenant of Mayors for Climate and Energy

Explanation: The indicator reflects the growth of Global Covenant, an instrument to promote EU energy transition policies and business to European Neighbourhood, Africa, Asia and Americas.

Source of data: Global Covenant of Mayors²³

Baseline (2019)	Interim milestone (2022)	Target (2024)
10239	13000	16000

²² www.ensreg.eu

²³ www.globalcovenantofmayors.org