

The path to Net-Zero





WE SUPPORT







ENERGY FOR ALL





2021





Taskforce on Nature-related Financial Disclosures

The path to Net-Zero

Net-Zero Ambition



Activities	2021-2023 targets	2021 results	Status	2022-2024 targets	Tag	SDG
Reduction of specific emissions Scope 1	-80% in 2030 compared to 2017 (82 gCO _{2eq} /kWh) ⁽¹⁾	-45% compared to 2017 (227 gCO _{2eq} /kWh)		-80% in 2030 compared to 2017 (82 gCO _{2eq} /kWh) ⁽¹⁾	E	13
Reduction of Scope 1 and 3 electricity retail emissions	Ð	-45% compared to 2017 (201 gCO _{2eq} /kWh)		Approximately -80% in 2030 compared to 2017 (≤ 73 gCO _{2eq} /kWh) ²	E	13
Reduction of Scope 3 gas retail emissions	Ð	-12% compared to 2017 (22.3 MtCO ₂)		-55% in 2030 compared to 2017 (11.4 MtCO ₂) ⁽³⁾	E	13
Development of additional ⁽⁴⁾ renewable capacity and reduction of thermal ⁽⁵⁾ capacity	Approximately +96 GW of additional renewable capacity ⁽⁴⁾ in 2021-2030	5.1 GW of built renewable capacity ⁽⁴⁾		Approximately 100 GW of additional renewable capacity in 2022- 2030 ⁽⁶⁾	I E	7 13
	<20% of conventional capacity ⁽⁵⁾ over total capacity	-2.0 GW of thermal capacity ⁽⁵⁾		<20% of conventional capacity over total capacity ⁽⁵⁾ in 2030		
Energy production from renewable sources ⁽⁷⁾ (% over total)	Ð	51%		Approximately 80% by 2030 ^{®)}	I E	7 13
MBA-PhD training about resilience and energy transition in the countries where the Group operates	600 people involved in the period 2021-2023	267 people involved		600 people involved in the period 2022-2024	E S G	13 17

The 2030 Scope 1 emissions reduction target was certified by Science Based Targets initiative (SBTi) in 2020, in line with 1.5°C. 2024 reduction target is -66% compared to 2017 (140 gCO_{2eq}/kWh).
 2024 reduction target is -65% compared to 2017 (≤ 130 gCO_{2eq}/kWh).
 2024 reduction target is -16% compared to 2017 (≤ 1.3 mtCO₂).
 Includes managed capacity. The value of built renewable capacity in 2021 includes 0.2 GW of BESS.
 Includes nuclear.

(4) Includes managed capacity. The value of balance structure and a structure of the structure of t

			Goals			Status		
I Industrial	E Environmental	S Social	(+)	\mathcal{C}	С			
G Governance	T Technological		New	Redefined	Outdated	Off track	On track	Achieved

Activities	2021-2023 targets	2021 results	Status	2022-2024 targets	Tag	SDG
Sustainable construction site Q	Promoting the adoption of the sustainable construction model (no. sustainable construction sites/ total construction sites) 100% renewable construction sites ⁽⁹⁾ by 2023	100% renewable construction sites ⁽⁹⁾		Promoting the adoption of the sustainable construction model (no. sustainable construction sites/ total construction sites) 100% renewable constructions sites by	I E S T	 4 6 7 8 12 13 14 15
	100% hydroelectric, geothermal and thermal construction sites by 2023	100% hydroelectric, geothermal and thermal construction sites		2022 ⁽⁹⁾ 100% hydroelectric, geothermal and thermal construction sites by 2022		
	Improving the adoption of the sustainable construction site model (average adoption rate per site) 100% by 2023	100% renewable construction sites ⁽⁹⁾ 100% hydroelectric, geothermal and thermal construction sites		Monitoring the efficacy of sustainable practices implementation (no. implemented practices/no. practices defined in CSV Plan) Renewable construction sites ⁽⁹⁾ : 95% by 2023 Hydroelectric, geothermal and thermal construction sites: 80% by 2023	I E S T	467812131415
Sustainable plant Q	Promoting the adoption of the sustainable plant model (sustainable plants/ total eligible plants) 100% by 2023	100%		Promoting the adoption of the sustainable plant model (sustainable plants/total eligible plants) 100% by 2024	I E S T	4 6 7 8 12 13 14 15
	Improving the adoption of the sustainable plant model 66.3% in 2021 (rate of adoption of planned practices)	89.7%		Improving the adoption of the sustainable plant model 9% by 2022 ⁽¹⁰⁾ (implemented practices in the current year/ implemented practices in the previous year)	I E S T	 4 6 7 8 12 13 14 15

${f Q}$ Find out more

The models of **sustainable Design**, **Construction and Plant** are conceived to integrate sustainability in the business along the Value Chain (phases of Business Development, Engineering & Construction, Operation & Maintenance, Repurposing) and are based on the principles of Creation of Shared Value (CSV) to create synergies between the needs of the business and those of the territory, building long-term relationships. They are ever-changing pillars centered on best practices and procedures that aim to mitigate the impact of our plants on the territory, to increase and encourage collaboration with communities and generate efficiency promoting and applying the principles of CSV, circular economy and innovation, based on a deep knowledge of the context in which we operate. The use of local manpower for construction activities and actions taken to maximize recycling of waste produced and to reduce water consumption are examples of application of the models.

In particular, the pillar of sustainable Design and Construction site is applied in the construction phase of a plant until its completion, while the sustainable Plant pillar is applied to the Operation & Maintenance (O&M) phase, e.g. operations and production activities of the plant.

(9) Excluding hydroelectric and geothermal.

⁽¹⁰⁾ The formula of the implementation rate was modified to evaluate the increase in the practices adopted compared to the previous year. The previous formula measured the practices adopted or already adopted as it was the first year of implementation of the catalogue. The practices deployed indicate how much the model is spreading the adoption of best practices within the plants.

Activities	2021-2023 targets	2021 results	Status	2022-2024 targets	Tag	SDG
Promoting energy transition through conversion projects with the aim of finding new solutions and ways of using them to develop energy conversion, the circular economy, while also promoting innovation ⁽¹¹⁾	 48 sites involved in repurposing projects⁽¹¹⁾, including: Porto Tolle: construction of an open-air tourist village by a third party; start of demolition by the counterparty Augusta: construction of an innovative research and study centre in areas no longer used of the plant, dedicated to sustainable reclamation, solutions for mitigating the environmental impact of plants and infrastructures, and other areas relating to the energy sector and plant species Livorno: construction of a logistic-customs area in the site areas Teruel: internal redevelopment Coal2RES conversion (combination of solar, wind and BESS) 	 Porto Tolle: demolition launched Augusta: constructions work in progress Bari: demolition launched 		 48 sites involved in repurposing projects⁽¹²⁾, including: Porto Tolle: construction of an open-air tourist vilage by a third party; start of demolition by the counterparty Augusta: construction of an innovative research and study centre in areas no longer used of the plant, dedicated to sustainable reclamation, solutions for mitigating the environmental impact of plants and infrastructures, and other areas relating to the energy sector and plant species Livorno: construction of a logistic-customs area in the site areas Bari: construction of urban park with multifunctional areas (co-living, co-working, co-learning and green areas); start of demolition by the counterparty As Pontes, Litoral: "call for projects" for collecting repurposing ideas with the objective of industrializing the areas to mitigate the impact of the closures 	l E S T	7
Greater use of sustainable financing sources (sustainable finance instruments/total financial instruments)	48% by 2023	55%	-	65% by 2024 ⁽¹³⁾	l E	7 13

(11) Third-party project initiatives could be developed where in-house redevelopment is not feasible.

(12) Includes sites already decommissioned, to be decommissioned, in operation and with hybridization currently ongoing with other technologies.
 (13) The 2030 target is >70%.



Sustainable - finance —

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As one of the first signatories of the **"Business Ambition for 1.5 °C**" campaign promoted by the United Nations and other institutions, we have committed to developing a business model in line with the objectives of the Paris Agreement (COP 21) to limit the average global temperature increase to 1.5 °C.

In 2021, we announced the bringing forward of our Net-Zero target from 2050 to

2040, for both direct (Scope 1) and indirect (Scope 2 and 3) emissions. Specifically, with regard to power generation and the sale of electricity and natural gas to end customers. we have committed to achieving zero emissions, without resorting to CO₂ removal measures or nature-based solutions such as reforestation. We have also confirmed our target to reduce our direct GHG emissions per kWh ar by 80% by 2030, compared to the 2017 base year, in line with the goal of limiting global warming to 1.5 °C, as verified by SBTi. This commitment requires the Group's direct emissions to be 82 gCO₂₀₀/ kWh by 2030. In addition, we have disclosed two new reduction targets, one integrated for emissions related to the generation and sale of electricity, with an 80% reduction by 2030 compared to 2017 levels, and the other for emissions related to gas sales, with a 55% reduction by 2030 compared to 2017 levels.

The objective of achieving total decarbonization by 2040 requires a strong acceleration on renewables and energy efficiency, as well as a complete rethinking of investment planning and the economic model, including in terms of circularity. In this regard, we are acting on the main lever of direct emissions and at the same time broadly rethinking our business model to work on all other dimensions. We have increased the degree of **reporting accuracy**, as well as **transparency** regarding the various categories of indirect emissions. Although these are voluntarily tracked in relation to their significance, we have increasingly mapped emissions from fuel extraction and transport, grid losses, selfconsumption and relations with suppliers. A particular focus is placed on the **climate change adaptation** policies in order to increase the resilience of the assets along the entire value chain, thereby limiting potentially negative impacts and guaranteeing a safe and sustainable energy service in all the countries in which the Group operates.

In order to guarantee increased transparency in its communications and relationships with its stakeholders, we periodically report on our related activities around climate change in line with the international standards of the GRI (Global **Reporting Initiative) and the Sustainability** Accounting Standards Board (SASB) and are publicly committed to adopting the recommendations of the Task force on **Climate-related Financial Disclosures** (TCFD) of the Financial Stability Board, which in June 2017 published specific recommendations for the voluntary reporting of the financial impact of climate risks. We have also integrated the "Guidelines on reporting climate-related information" published by the European Commission in June 2019. Furthermore, we have taken into account guidance from the "Enhancement and Standardization of Climate-Related Disclosures" of the SEC (Securities and Exchange Commission'), the first draft standards issued on the EFRAG website, and the ISSB's recently published exposure draft. The TCFD Advisory Council also worked on scenarios in 2020 and since then we have been involved in a number of initiatives around scenario analysis, sharing our expertise to support the widespread and transparent adoption of these practices across a growing number of companies.

227_{gCO_{2eq}/kWh} Specific CO₂ emissions (Scope 1)

80%

reduction of direct CO₂ emissions per kWh_{eq} (Scope 1) by 2030, compared with 2017 (SBTicertified target)

53.6% renewable net maximum capacity

87% EBITDA for lowcarbon products, services and technologies

201 gCO_{2eq}/kWh Scope 1 + Scope 3 emissions for electricity sales

22.3 MtCO₂ Scope 3 emissions for sales of gas

125.0 MtCO₂ Overall Group carbon footprint

11.7 MtCO₂ Carbon footprint associated with the supply chain

Engaging stakeholders in combating climate change

Enel promotes the engagement of its main external and internal stakeholders in order to increase their awareness and develop a constructive dialog that can provide a valuable contribution toward the creation of solutions that mitigate climate change and create value for the Group. The most relevant actions carried out in 2021 include:

- materiality analysis: climate change, in terms of priority for stakeholders and Company performance in the various countries in which it operates, was one of the topics discussed during identification of the main stakeholder priorities in sustainability planning;
- Enel Focus On: over the last year, twenty virtual meetings, known as #AsktheProfessor, were uploaded online, aimed at involving lecturers and experts so as to initiate an open dialog with Group management on the main challenges of the energy transition. A variety of climate-related topics was covered, such as renewable energy, the sustainable future, the customer as energy generator, utilities for a sustainable planet, incorporating sustainability into business, energy transition goals, and the most effective policies to reduce greenhouse gas emissions;
- social media: Enel has continued using social media to raise public awareness about topics related to climate change, including decarbonization, renewable energies, electrification, electric mobility and responsible energy consumption;
- **Twenergy**: a digital ecosystem launched by Endesa, the Group's subsidiary in Spain, with the purpose of raising awareness and informing on issues related to energy

efficiency, electrification, sustainable development, the circular economy and equitable transition, opening the debate to professionals and specialists from different sectors to build a platform for information and training which is as diverse as possible. In 2021, there were about 820 thousand visits to the platform, while in the main social networks the total impressions were about 500 thousand. Within Twenergy, the "Sustainable Spirits" project was also created, an initiative to give visibility to all people who are aware of sustainability and respect the environment;

- raising the awareness of local communities: with the Creating Shared Value (CSV) model, Enel is involving local communities, making them aware of issues related to climate change and explaining how renewables are an extremely effective solution, with benefits not only for the environment but also for the creation of new jobs and for social-economic development;
- raising the awareness of our people: Enel involves all the people that work for the Company in awareness activities in order to increase their engagement in climate change aspects and promote a culture of innovation and business entrepreneurship on a global level to overcome the energy challenges. Enel Digital Days 2021, which are annual company events, promoted discussions and exchanges about topics such as electrification, decarbonization, digitalization and urbanisation. The main priorities of the Strategic Plan for the next three years were presented, in line with what was communicated to the financial community during the Capital Markets Day.

Enel's advocacy activities for the climate

Within the framework of its commitment to climate change, the Enel Group is firmly committed to promoting and defining:

- ambitious climate and decarbonization targets consistent with the objectives set by the Paris Agreement, for example by being among the first signatories in 2019 of the Business Ambition for 1.5 °C campaign promoted by a global coalition of UN agencies, including the UN Global Compact, and business leaders, which reached over 1,000 signatures in 2021;
- effective and efficient implementation mechanisms capable of exploiting market dynamics and, in this sense,

fully supporting the presence of a carbon price;

- ongoing negotiations on climate issues within multi-stakeholder initiatives, actively contributing to groups and coalitions such as the UN Global Compact's Action Platform on Climate Ambition and the World Bank's Carbon Pricing Leadership Coalition;
- private sector leadership on decarbonization through its continued participation in initiatives such as the CEO Alliance, WEF CEO Climate Leaders Alliance, IETA (International Emissions Trading Association), WBCSD (World Business Council on Sustainable Development), and regional and national trade associations.

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Enel is committed to ensuring that its direct advocacy activities are conducted in line with the objectives of the Paris Agreement. In particular, Enel's advocacy policy aims to promote the Group's decarbonization strategy and pursuit of climate goals, involving institutional stakeholders, trade associations, non-governmental organizations and academia, in order to promote the Group's vision on climate and low-carbon policies. Stakeholder engagement contributes to the evolution of the regulatory framework towards ambitious climate goals and promotes an economy in which carbon pricing drives long-term investments. To do this, Enel interacts directly with policy makers, contributes to the positioning of trade associations, and interacts with a broader set of stakeholders to build consensus and support for specific policy proposals. As a strong supporter of carbon pricing, Enel supports its integration into the decision-making process in all countries where it operates. In doing so, Enel emphasizes the importance of well-functioning carbon taxation and trading mechanisms that can provide short- and medium-term predictability to support market efficiency, as well as strong long-term price signals to support investment and innovation.

During 2021, the Group represented its interests at the European level and promoted its position vis-à-vis the **European Institutions (Commission, Parliament, Council)** with the aim of influencing proposals and decisions that could have affected the EU's Climate and Energy Framework, and also the Group's activities. When carrying out its advocacy in Europe, Enel is committed to behaving in a transparent and responsible manner. We are listed on the European Transparency Register⁽¹⁾, the specific activities of which are linked to the main EU legislative and policy proposals (including European Green Deal, Fit for 55, Climate Law, ETS reform, Air Quality Directives, Sustainable Finance, State Aid and Competition, Hydrogen, Taxonomy). The dedicated website contains a public list of meetings Enel has held with Commissioners, Members of their Cabinet and EC Directors General between December 2014 and January 2022. Specifically, for 2021, topics discussed included: European Green Deal, Energy Taxation Directive (ETD), Carbon Border Adjustment Mechanism (CBAM) and RES & ETS. In addition, Enel's positions and responses to EU consultations are made public, together with a list of the main professional associations and think-tanks in which Enel is active.

The worldwide coordination of Enel's global public policy



positioning on climate is ensured by the European Affairs unit. This unit is responsible for developing global scenarios and position papers on climate policies. Its objective is to guide Enel's national and local advocacy activities, thanks to a continuous dialog with institutions and the widest possible range of stakeholders active in the climate debate. In this sense, Enel is also committed to working to ensure continuous and full alignment with the objectives of the Paris Agreement of any association of which it is a member.

Nationally, Enel's pursues its advocacy efforts through specific activities and broader stakeholder engagement on decarbonization and energy transition issues. The approach is similar to that adopted at global level. Advocacy objectives include promoting greater climate ambition, carbon pricing, accelerating the penetration of renewable technologies, developing and upgrading infrastructure through smart grid technologies to support the energy transition, and electrification as a means for decarbonizing energy end-uses. In addition, through "Energy Transition Roadmap", engagement platforms Enel engages with a wide range of stakeholders on the actions needed at national level to pursue the Paris Agreement goals. These platforms take decarbonization by 2050 as a starting point in line with the Paris Agreement, then proceed to identify the technology mix needed to achieve this long-term goal in 2050, as well as the medium-term goal of 2030, and to develop specific policy recommendations aimed at achieving this transformation. All of these activities are supported by ongoing engagement with a wide range of stakeholders.

⁽¹⁾ https://ec.europa.eu/transparencyregister/public/consultation/displaylobbyist.do?id=6256831207-27.

By registering, Enel signed the Transparency Register Code of Conduct, and also declared that it is bound by its own Code of Ethics.

Enel's positioning on key climate policies and frameworks

Several regulatory and legislative events that occurred in 2021, not only climate-specific regulations but also energy and environmental regulations that have a strong impact on the climate itself, are relevant to Enel's business and advocacy actions. In light of the increased streamlining of the climate challenge within broader policy and regulation at the global, national, regional and local levels, the number of dossiers on which Enel focuses its advocacy increases annually. Enel's positioning on the main dossiers is outlined below.

- In all the countries where it operates, the Enel Group strongly promotes greater climate ambition in line with the Paris Agreement. Believing in the urgency in combating climate change, and having adopted, as a company, SBTi objectives aligned with the Paris Agreement, Enel supports public the framework of a just transition. Enel's advocacy in this area is implemented through *ad hoc* engagement on specific legislative proposals (e.g. the European Climate Law), but also through broader stakeholder engagement at national level through our Energy Transition Roadmap platform (see above). Through such platforms, Enel promotes NDCs (Nationally Determined Contributions) that fully reflect the highest possible climate ambition and are fully in line with the requirements of the Paris Agreement.
- In the context of the debate on international cooperation regarding the Paris Agreement, Enel supports a rapid finalization of the implementing provisions of Article 6 on climate change cooperation. This position is in line with the fact that Enel supports the adoption of carbon pricing mechanisms worldwide. The implementation of these mechanisms based on Cap and Trade systems should be preferred in industrialized economies and industrial sectors where operators can effectively manage and internalize the price signals recorded on the market in their decision-making processes. Conversely, carbon-pricing mechanisms should tend to take the form of carbon taxes in countries with weaker institutions and in sectors characterized by distributed emission sources, and where non-economic barriers are significant. The Enel Group strongly supports carbon pricing as a means to decarbonize economic systems efficiently and effectively around the world. Enel's positions on the adoption of carbon pricing have been conveyed directly and through participation in the activities of IETA, CPLC, Eurelectric and WBCSD. In 2021, specific activities were dedicated aimed at analyzing

and promoting carbon pricing, at global, regional (EU and Latin America) and national (EU member states, Chile, Colombia and Peru) levels.

- Within the EU, the European Green Deal represents a unique opportunity to accelerate the EU's path to a fully decarbonized and sustainable economy, especially when aligned with the mobilization of significant resources to ensure a rapid recovery from the ongoing crises. Achieving the EU's climate and environmental goals requires a new industrial strategy to reach climate neutrality, and an action plan for the circular economy, pursuing the decarbonization of each sector. The energy sector must aim to be fully decarbonized and ensure the decarbonization of other sectors of the economy through direct and indirect electrification. The study "Sustainable paths for EU increased climate and energy ambition", sponsored Fondazione Enel and other partners, highlights the fact that end-use electrification is necessary for full decarbonization.
- · Enel supports the EU Climate Law, which places environmental and other challenges at the heart of the EU's vision and strategy for inclusive and sustainable growth. The long-term goal of carbon neutrality in 2050 and the intermediate 2030 target of at least a 55% reduction in greenhouse gases, compared to 1990 levels, was set as a guide for all other EU policies. The law also establishes a guiding vision and governance to ensure that all EU policies, actions, and strategies are aligned with the climate goal, including education, financing, R&D, innovation, tax policies, labor and social policies. In doing so, the law establishes a principle that all policies should be designed and evaluated based on a careful assessment of their full impact. This assessment includes the full range of different benefits in terms of air quality, circular economy and energy efficiency. In addition, the EU Climate Law includes a pathway to establish an intermediate climate target at 2040, taking into account the principles of "just transition", recognition of the need to strengthen the EU's carbon resources through a more ambitious LULUCF (Land Use, Land-Use Change, and Forestry) regulation, for which the Commission submitted a proposal in July 2021, a commitment to negative emissions after 2050, and the establishment of the European Scientific Advisory Board on Climate Change, which will provide independent scientific advice.

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- · Enel supports the EU's proposed ETS reform, which must be strengthened to pursue the EU's higher climate ambition and supported by a Carbon Border Adjustment Mechanism. The linear reduction factor should be increased to achieve the additional emission reductions required of EU ETS sectors and to provide a clear price signal to the market. The market stability reserve should be revised to increase price stability and balance the market surplus. The introduction of the road transport and buildings sectors into the ETS should be approached with caution, as it could compromise the reliability of the carbon price signal in the short to medium term and have significant negative impacts in terms of s just transition. Finally, Enel supports the adoption of the Carbon Border Adjustment Mechanism to provide greater climate ambition while reducing the risks of carbon leakage. Implementation of the mechanism should go hand in hand with intensified discussions on increasing climate ambition with the EU's key global trading partners.
- Enel supports a revision of the Effort Sharing regulation that fully exploits the decarbonization potential of energy end-uses in the EU's increased climate ambition. The review must aim to update the Effort Sharing Regulation (ESR) targets of individual member states in an upwards direction, in line with the higher ambition of 2030. The ambition must also be aligned with 2050 climate neutrality, to avoid lock-in of emitting technologies and infrastructure. However, the impact on prices and energy bills must be carefully managed. The multiple environmental benefits associated with a higher ambition allow for a deviation from cost-efficiency criteria, as the decarbonization of transport and buildings brings environmental benefits that are not accounted for in GHG costs.
- Enel welcomes the publication of the hydrogen and gas market decarbonization package by the European Commission. The package also includes the proposed regulation on reducing methane emissions throughout the energy value chain and introduces new requirements for measuring, reporting and verifying emissions, as well as emission abatement measures. In addition, the regulation also proposes rules to increase transparency on methane emissions associated with fossil fuel imports.
- Enel supports the European Commission's proposal on an upward revision of the EU's 2030 energy efficiency target of at least 36% for final energy consumption and 39% for primary energy consumption to achieve the ambition of reducing greenhouse gas emissions by 2030. Significant energy efficiency improvements are needed to achieve the Net-Zero emissions target by

2050. As such, the proposed revision of the Directive, as part of the "Delivering on the European Green Deal" package, raises the level of ambition of the EU's energy efficiency target and makes it binding.

- Enel welcomes the Commission's initiative to review the Renewable Energy Directive. It believes that the main contributions to efficient decarbonization of the energy sector, as well as buildings, heating and cooling, transportation and industry, will come from further end-use electrification (direct electrification and indirect electrification for sectors that are difficult to abate emissions by means of renewable hydrogen). In this regard, low carbon fuels should be excluded from the scope of this Directive. Enel believes that the EU regulatory framework should provide long-term predictability for investors, as well as simplified and standardized authorization procedures. Finally, Enel supports a technology-neutral approach that at the same time creates the necessary conditions for the penetration of fully sustainable technologies.
- As part of the European Commission's hydrogen strategy, the Enel Group actively promotes renewable hydrogen (e.g. generated by electrolysis powered by 100% renewable energy). Enel believes that this is the only truly sustainable generation pathway for hydrogen, powered by renewable sources with zero greenhouse gas emissions. Hydrogen is best used as a complement to electrification, not as a competitor. It has an efficient role in decarbonizing those parts of the economy that cannot be electrified easily or economically, for example, hard-to-abate sectors, such as heavy industry, aviation and shipping.
- As part of its smart and sustainable mobility strategy, the Enel Group is actively promoting e-mobility as a key factor in reducing road transport emissions and contributing to the achievement of EU energy efficiency targets. Since 2011, the EU has been involved in the process of updating its transport policy framework to reduce emissions in the sector, particularly road transport. Mobility is a critical aspect of social inclusion and an important factor in human well-being, especially for disadvantaged groups. Recognized as an essential service in the European pillar of social rights, transport meets a fundamental need in enabling citizens to integrate into society and the labor market. By far the most serious challenge facing the transport sector is to reduce its emissions significantly and become more sustainable. The European Green Deal calls for a 90% reduction in GHG emissions from transport so that the EU can become a climate neutral economy by 2050, including working towards a zero pollution ambition. In addition, in 2021 the European Commission unveiled

the "EU Urban Mobility Framework", complementing the proposed revised guidelines for the Trans-European Network. The new EU Urban Mobility Framework outlines a common list of measures and initiatives for with which EU cities can address the challenge of making their mobility more sustainable.

- Enel fully supports the European building renovation strategy and actively participates in discussions on the proposed review of the Energy Performance of Buildings Directive. The building sector is one of the most lagging industries as regards decarbonization due to criticalities in the value chain, building efficiency and choice of energy source. Enel believes it can contribute substantially to the decarbonization of the building sector by installing efficient electrical technologies such as heat pumps, improving buildings dynamic elements of the energy system through storage, remodeling of demand, and electric vehicle charging.
- Enel has involved various stakeholders in the European Commission's New Circular Economy Action Plan, stressing the importance of ensuring the circularity of the main supply chains, particularly in relation to electric vehicles, batteries and renewable energy technologies. Furthermore, Enel's advocacy has highlighted the need to develop appropriate circular economy metrics and to focus on the high potential of urban environments through the implementation of a clear vision of circular smart cities.
- Within the framework of the Zero Pollution dossier and other environmental dossiers, the Enel Group is actively promoting the maximization of synergies between decarbonization and other environmental policies. In this context, synergies of climate and air quality policies are perhaps the most critical, and electricity technologies can play a key role in combating climate change, improving local air quality and increasing the circularity of the EU's economic system. Soil management is vital for a circular economy that aims to develop sustainable models capable of encouraging the coexistence of different activities and creating synergies and mutual benefits, such as agri-voltaics. The new soil strategy published in November is a step in the right direction. However, its scope should also be extended to the redevelopment of brownfield sites and the reuse of brownfields to avoid further land acquisition and soil pollution.

In addition to the position outlined above on specific issues, the Enel Group is actively contributing to the debate on how best to address the challenge of climate change. Specifically:

- Enel played an active role in the different preparatory events of COP 26 in Glasgow, dealing with several issues related to climate change, such as climate ambition, the Net-Zero challenge, carbon pricing schemes and international carbon markets, but also the mobilization of sustainable finance for combating climate change. Enel is fully committed to contributing to the efficient acceleration of the energy transition and to bringing the world economies onto the Net-Zero path, as mentioned in the latest IPCC Report.
- Enel has actively contributed to GSEP (Global Sustainable Energy Partnership) climate change activities. In 2021, GSEP launched its annual report, focused on beneficial electrification, at the 2021 Virtual GSEP Global Summit, with Enel X Global Retail CEO Francesco Venturini Co-Chairing. GSEP also hosted a virtual dialog on electrification at Climate Week in New York, with Enel on the panel. Other GSEP activities carried out in 2021 include Enel's participation in the Young Ambassadors for Global Electrification program, global advocacy on sustainable electrification, the launch of new research on tracking the deployment and pace of electrification globally, webinars and capacity building activities.
- Enel supported IETA (International Emission Trading Association) in its 2021 action plan focused on analyzing how emission trading can facilitate increased ambition in both the private and public sectors. IETA promotes maximum transparency of accounting rules under Articles 5 and 6 of the Paris Agreement, the international aviation carbon offset and reduction system, and the rules developed under voluntary markets. IETA contributed substantially to the success of the COP 26 negotiations on collaborative approaches. At the regional level, the association collaborated on the European Commission's proposal to strengthen the EU ETS and increase climate ambition. It also supports the emergence of carbon pricing schemes in the Americas and Asia. It does so based on the firm belief that emission trading can enhance the ambition of climate policies while ensuring a high level of environmental integrity.
- In 2021, Enel launched the new Energy Transition Roadmap platforms for Italy and Romania, bringing the number of active platforms in the Group to more

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than 10. In early 2021, the Energy Transition Roadmaps (ETRs) for Peru and Morocco, both launched in 2020, were completed. The ETRs take an open approach, sharing technical knowledge and policy views with national and international stakeholders. The ETRs aim to exploit fully three of the main levers available to decar-

bonize national economies: zero-emission electricity, digitalization and smart grids and end-use electrification. They do this by developing a robust, transparent and stable political and regulatory framework, which in turn is able to catalyze effectively private sector action under the Paris Agreement.

The Energy Compact on Enel's sustainable strategy

In 2021 Enel took part in the **High-Level Dialog on Energy (HLDE) of the United Nations**, which led to the launch of a global roadmap to set specific targets in accelerating the transition and promoting energy access by 2030, and the announcement of the Energy Compacts, a set of voluntary commitments aimed at accelerating the achievement of SDG 7 – Ensure access to affordable, reliable, sustainable and modern energy for all – and zeroing out net emissions.

In fact, Enel was among the first companies in the world to present its Energy Compact, with the following ambitious global commitments: accelerating coal phase-out from 2030 to 2027; tripling renewable capacity to 145 GW by 2030, from around 49 GW in



2020; increasing battery energy storage to 20 TWh and demand response to 20 GW by 2030; reducing GHG Scope 1 emissions to 82 g/kWh in 2030, in line with the 1.5 °C scenario (verified by SBTi); installation of more than 4 million electric vehicle charging points and operation of 10 thousand electric buses by 2030; target of reaching 5.6 million beneficiaries with new connections in rural and suburban areas in the period 2020-2030 (target later increased to 6.9 million in the same period). The commitments in the Energy Compact were subsequently updated in the Strategic Plan and the Sustainability Plan 2022-2024, for which the dashboards at the beginning of the chapters in this document should be consulted.



Enel's commitment to combat climate change through associations and organizations

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The Group plays an active role in various industry and multistakeholder associations and organizations with the aim of promoting issues concerning energy transition and the commitment to fight climate change at national and global level. Enel is committed to ensuring that the various industry associations, business networks and think tanks of which it is a member operate in full compliance with the objectives of the Paris Agreement and the decarbonization roadmap established by the Group. Enel therefore systematically verifies the consistency of the associations' positions with the climate policies shared at the Group level. This verification process is carried out in two stages: (i) before joining the association, through an in-depth analysis of the body's by-laws, in line with the Climate Policy issued in September 2021; (ii) after joining the association, by actively contributing to its work and/ or taking positions of responsibility within it or promoting the Enel Group's position within working groups. Finally, a review of the level of alignment of the associations with Enel's strategy is conducted annually. Where an association is found not to be in line with the objectives of the Paris Agreement and Enel's climate risk mitigation strategy, the Company assesses whether the misalignment could compromise the effectiveness of Enel's advocacy and participation, and may eventually decide to withdraw from the association. By way of example, in recent years we have withdrawn our participation from some associations whose views on climate policies and how to achieve the energy transition were persistently different from Enel's in terms of fighting climate change and pursuing the goals set forth in the Paris Agreement. On the other hand, it may happen that in some associations, despite the existence of a misalignment, Enel decides to continue to be a member with the aim of influencing and aligning association decisions with its own vision of achieving the targets set by the Paris Agreement.

During 2020, an initial selection of the main industrial associations and organizations was carried out to identify alignment with Enel's climate position. **During 2021, the list of all associations most committed to climate policy advocacy and with which Enel collaborates worldwide was published** (Sustainability | Enel Group) and the list of associations on which an in-depth assessment was carried out was significantly expanded. The assessment is based on targeted evaluations on the science of climate change, climate policies at global and national level, disclosures on the topic, and technologies proposed.

With specific regard to the European framework, **in 2021** Enel continued to participate in several energy-relevant associations and think tanks such as Eurelectric, Solar Power Europe, Wind Europe, European Association for Storage of Energy (EASE), Batteries European Partnership Association (BEPA), SmartEn and Bruegel, maintaining a consistently proactive role in promoting messages; in addition, in 2021 Enel joined the European Raw Material Alliance. In 2021 the Group also continued to participate in some sustainability policy-oriented initiatives, such as CEO Alliance, EU Battery Alliance, Electro-mobility Platform, Renewable Hydrogen Coalition, European Clean Hydrogen Alliance and CEO Action Group for the European Green Deal of the World Economic Forum. In particular, the main updates in 2021 inherent in Enel's participation in the associations were:

- appointment of the Enel CEO to the role of Chairman and Europe Manager in the role of Deputy of the "Energy & Resource Efficiency Task Force" in "B20 Italy-2021";
- appointment of the Manager of Business Development Europe to the Board of Wind Europe and participation in 8 out of 15 working groups and task forces;
- confirmation of the Group's appointment to the Board and Advocacy Committee of SolarPower Europe and participation in 12 out of 14 workstreams;
- appointment of the Manager of Infrastructure and Networks Italy as Chairman of the EU DSO Entity and of the Board;
- appointment of the Enel Group as Co-Chair of American Electric Power of GSEP;
- appointment of the Manager of Europe of Enel as representative of the Italian association Elettricità Futura in the Board of Directors of Eurelectric; participation in numerous working groups and confirmation of the Chair of the Electrification and Sustainability Committee.

Enel contributes to the associations' activities on decarbonization policies through active participation in working groups and by collaborating on studies and policy papers. In 2021, in view of the publication of the European Commission's "Fit for 55" package, Enel, in addition to conveying the main messages through the associations, signed the open letter addressed to European leaders promoted by CLG Europe, calling for an effective and coherent legislative package capable of ensuring EU leadership on climate and the Net-Zero transition. In addition, Enel has participated in advocacy activities in support of the 100 gCO₂/ kWh threshold-published in the Delegated Acts of the European Taxonomy-which allows an activity to be defined as environmentally sustainable if its CO₂ emissions are below this threshold. Enel not only supports compliance with this threshold, but also asks to specify how this threshold should be reduced over time until it reaches zero by 2050.

Finally, through the We Mean Business Coalition, about 800 companies, including Enel, have made an appeal to the

leaders of the G20 countries, urging them to act to limit the global temperature increase to 1.5 $^\circ\mathrm{C}.$

The table below summarizes the results of the review conducted during 2021.

		Main positions on climate change			
Industrial association	Description	Level of alignment with the Paris Agreement	Main actions	Enel's main roles within the association	Main actions developed in 2021
Eurelectric	The Electrical Industry Union-Eurelectric is the association representing the interests of the electrical industry on a pan-European level, in addition to its affiliates and associates on several other continents. The association has over 34 full members, representing over 3,500 companies in Europe.	High	Eurelectric contributes to the development and competitiveness of the electricity industry, provides effective representation of the industry in public affairs and promotes the role of a low-carbon electricity mix.	Enel is well represented in the association, with more than 40 delegates from Group companies in Italy, Spain and Romania holding key positions within the association (at decision-making level, Committees, such as the Electrification and Sustainability Committee or the Sustainability Working Group).	 In 2021 Enel helped provide input and feedback for the following Eurelectric studies: "Connecting the dots": investments in distribution networks to ensure the energy transition; "EVision": connect and accelerate e-mobility in Europe; "Electric Decade": policy actions and recommendations; "Powering the energy transition with efficient network tariffs"; "Power Barometer"; "Power 2People".
					In 2021, Enel continued to serve as Chair of the Electrification and Sustainability Committee, Eurelectric's key committee for discussing and deciding on electrification, energy efficiency policies, and sustainability, including decarbonizing the economy beyond the power sector, one of the core themes of the association's vision.
WindEurope	WindEurope is the voice of companies and organizations operating in the wind industry. It actively promotes wind energy in Europe and worldwide, has over 450 members and is active in over 40 countries.	High	Through effective communication and engagement in policy- making processes, WindEurope facilitates national and international policies and initiatives that strengthen the development of European and global wind energy markets.	Enel is part of the Board and is active in 8 working groups and task forces.	Enel has played an active role in providing input and supporting WindEurope's advocacy efforts in relation to the FF55 package. Enel actively participated in several events, for example the CEO retreat in Bruges in October, and End-of-Life Strategies (EoLIS) in Brussels in November.
SolarPower Europe	SolarPower Europe represents organizations active along the entire PV value chain, with the aim of defining the regulatory environment and improving business opportunities for solar photovoltaics in Europe.	High	Among the objectives of the association is the successful positioning of solar PV based energy solutions in the European context through dedicated studies and energy market analysis.	Enel has continued to hold the Chair of SolarPower Europe. Enel is present in several workstreams in the association, besides chairing of the Renewable Hydrogen Workstream and Co-Chair of the Industrial Strategy Workstream.	Enel has played an active role in providing recommendations and supporting SolarPower Europe's advocacy efforts in relation to the FF55 package. Enel has participated actively in several events and contributed to several publications, i.e. relevant the Global Market Outlook for Solar Power (July and December) and the EU Solar Jobs Report (November).
The European Association for Storage of Energy (EASE)	EASE is the leading association representing organizations active in the entire storage value chain.	High	EASE promotes the role of storage in a decarbonized energy system.	Enel continued to serve as Chair of the association. Enel serves on the Technology and Value Assessment Committee (TVAC), the Strategy Committee (STC), and the Communications Committee (COMC), as well as on several task forces and working groups.	Enel provided recommendations on the association's positioning with respect to the Fit for 55 package in relation to the storage value chain. Consultations included input on the Batteries Regulation Proposal and the TEN-E Regulation Revision.

		Main positions on climate change					
Industrial association	Description	Level of alignment with the Paris Agreement	Main actions	Enel's main roles within the association	Main actions developed in 2021		
SmartEn	SmartEn is the association of market participants promoting decentralized and decarbonized power generation in support of flexible renewable demand.	High	SmartEn promotes the energy transition through smart cooperation between consumption, distribution, transmission and generation, acting as an equal partner in an integrated energy system.	Enel participates in the association with one representative on the Committee, and 6 other experts at the working group and task force levels.	Enel provided recommendations on the association's positioning with respect to the Fit for 55 package, as well as contributing to the association's strategy to enhance demand-side flexibility (DSF) policies. Enel also sponsored the "Smart Energy Summit 2021 Demand-Side Flexibility Annual Event" and took part in the initiative with high-level representation.		
RES4Africa	RES4Africa brings together a network of international leaders from across the clean energy value chain and supports the creation of an enabling environment for renewable energy investments and strategic partnerships. RES4Africa serves as a bridge between members and partners in emerging markets to exchange perspectives and expertise.	High	The renewAfrica initiative was officially launched at European level in 2019. It is a European initiative supported by multiple stakeholders to accelerate the transition to sustainable energy in Africa. It promotes the creation of a European program capable of catalyzing investment in renewable energy for the future sustainable development of the continent. RES4Africa is a member of the Africa- Europe Foundation, a platform launched in 2021 by Friends of Europe and the Mo Ibrahim Foundation to facilitate multi-stakeholder dialog, catalyze collaboration and unlock new opportunities that can transform dialog into action.	Enel Green Power is one of the funding partners and holds the Chair of the association.	Enel is well represented within the four task forces created. In particular, representatives from Enel's Brussels office are on the Advocacy task force supporting the organization of meetings with key representatives of European institutions. In 2021 Enel continued to support the work of the task forces to further promote the renewAfrica initiative to the EU institutions. Enel supported renewAfrica's outreach activities in selected African countries, being an active participant in the last event held in Kenya in December with the participation of high-level stakeholders from the local energy sector.		
Sustainable Energy for all (SEforALL)	SEforALL is an international non- profit organization working in partnership with the United Nations, the private sector, civil society, financial institutions and governments in support of the Sustainable Development Goal on Energy (SDG 7).	High	SEforALL pursues the advancement of SDG 7 and supports the achievement of its three targets by 2030, in line with the Paris Agreement: ensuring universal access to affordable, reliable and modern energy services; substantially increasing the share of renewable energy in the global energy mix; and doubling the global rate of energy efficiency improvements.	In 2020, the Enel CEO was appointed Chairman of the organization's Administrative Board, a position he will hold until 2023.	In 2021, Enel took part in the preparatory processes for the High- Level dialog on Energy, the first global energy summit of which SEforALL held the co-chairmanship, as a member of the Technical Working Group on Energy Transition, while the CEO spoke during the summit's opening session. On this occasion, Enel also announced its renewed commitments to SDG 7, formalized with the Enel Energy Compact and the multistakeholder Energy Compact on the electrification of Sardinia. Enel further supported SEforALL's BeBold campaign, which aims to drive ambitious actions to ensure affordable, clean energy for all.		
World Business Council for Sustainable Development (WBCSD)	The WBCSD is a global organization led by the CEOs of more than 200 international companies working together to accelerate the transition to a Net- Zero, nature positive and more equitable future.	High	The WBCSD works to support leading sustainability companies to drive integrated actions to address global challenges through the sharing of best practices and the development of tools and guides that can stimulate and advance members on their own pathway to sustainability.	Enel holds the role of Council Member with the CEO and Liaison Delegate. The Group is also a member of the Steering Committee of the "Energy Solutions" project, which aims to identify cutting-edge, low-carbon energy solutions for the decarbonization of the energy system.	In 2021, Enel was a member of the "SOS 1.5" and "Energy Solutions" projects, contributing to the "SDG Roadmap for Electric Utilities" report, where two case studies were included: "Enel's ambition to responsibly phase out coal" and "Circular cities-cities of tomorrow". The Group also followed the "Mobility Decarbonization" and "Climate Policy" projects.		

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		Main positions of	on climate change		
Industrial association	Description	Level of alignment with the Paris Agreement	Main actions	Enel's main roles within the association	Main actions developed in 2021
United Nations Global Compact (UNGC)	The United Nations Global Compact is the largest global corporate sustainability initiative, created with the goal of promoting a sustainable economic model through the development and adoption of sustainable practices and policies.	High	UNGC works to create a sustainable and inclusive global economy by supporting companies to do business responsibly, aligning strategies with the ten principles on human rights, labor, environment and anti- corruption, as well as taking action to promote the goals of the 2030 Agenda.	Enel's CEO was a member of the Board until May 2021. Enel is also a member of the organization's Expert Network.	In 2021 Enel took part in the Action Platform "Climate Ambition", contributing to the report "Taking the Temperature". Assessing and scaling-up climate ambition in the G7 business sector", which examines the climate ambition of businesses in the major stock indices of G7 countries, based on target information disclosed by companies. Finally, the CEO took part in the "CEO Study on Sustainability", developed by UNGC together with Accenture, entitled "Climate Leadership in the eleventh hour".
Advanced Energy Economy	Advanced Energy Economy (AEE) is a national association of businesses that are making the energy America uses safe, clean and affordable. AEE works to accelerate transitions to 100% clean energy and electrified transportation in the United States.	High	AEE educates, engages and advocates in more than 12 states, in wholesale electricity markets and at Federal level, for executive actions, laws and regulations that expand the size and value of markets for advanced energy products and services.	The CEO of Enel X North America serves on the AEE Board of Directors. Enel's Institutional and Regulatory Affairs Department works actively in AEE's electricity markets and in State and Federal legislative efforts, respectively.	 Advocacy on behalf of Federal legislation to accelerate the deployment of clean energy technologies, including electric vehicle infrastructure, renewable generation, and related supply chain and manufacturing construction. Advocacy in favor of developing an expanded electricity market in the western United States to facilitate clean energy deployment. Advocacy in favor of participation of networked energy resources in wholesale electricity markets.
American Clean Power Association	American Clean Power (ACP) is the voice of companies across the wind, solar, storage, and transmission industries that are powering America's future and providing cost-effective solutions to the climate crisis, while creating jobs, spurring massive investment in the U.S. economy, and driving high-tech innovation across the nation.	High	ACP focuses on US Federal legislative and administrative advocacy, while also supporting advocacy at State level. It supports policies that will transform the US power grid into a low- cost, reliable, renewable energy system, including support for renewable energy demand, sensible reforms, permitting, transmission system construction, predictable international trade rules, and workforce development.	The CEO of Enel Green Power North America serves on the ACP Board of Directors. Enel North America's Manager of Public Policy & Institutional Affairs is Chair of ACP's Policy Advocacy Steering Committee. Enel Regulatory Affairs, Institutional Affairs, HSEQ, Legal, Business Development Siting and Permitting, and Communications staff participate in ACP's committee-level work on policy design, international trade, health and safety, electricity markets and other topics. Institutional Affairs also does joint advocacy before Congress and the Administration.	 Advocacy for Federal legislation to accelerate the deployment of wind, solar, energy storage, transmission and green hydrogen technologies. Advocacy in favor of developing an expanded electricity market in the western United States to facilitate clean energy deployment.
Confindustria	Confindustria is the main association representing employers in manufacturing and service companies in Italy. More than 150 thousand small, medium and large companies are members. Confindustria's mission is to encourage the affirmation of enterprises as the engine of economic, social and civil growth of the country.	Medium	Development of workshops, seminars and summary documents including observations and/or proposals suggested by the association regarding energy and environmental issues in local, national and European contexts.	In addition to holding important local and national association roles, Enel takes part in various round tables and technical working groups, seeking to promote activities in line with climate targets.	 Positioning on the European Commission's "Fit for 55" package. Analysis of and support for compliance with national ETS regulations. Contribution to the development of the Energy Scenario 2030 and to the evolution of the National Integrated Energy and Climate Plan.

		Main positions on climate change				
Industrial association	Description	Level of alignment with the Paris Agreement	Main actions	- Enel's main roles within the association	Main actions developed in 2021	
Edison Electric Institute	The Edison Electric Institute (EEI) is the association that represents all investor- owned US electric utilities.	Medium	EEI focuses on US Federal legislative and administrative advocacy, while also supporting advocacy at regional and State level. It works to encourage policies that support investor-owned private utilities, with a focus on decarbonization.	Enel North America participates in EEI through the organization's international program for non-US utilities. Institutional Affairs leverages the trade association's resources in Federal electricity market design, trade policy, transportation electrification and climate discussions.	Advocacy for Federal legislation to accelerate the deployment of wind, solar, geothermal, hydroelectric, nuclear, energy storage, transmission, carbon capture and storage, green hydrogen and transportation electrification technologies.	
Clean Energy Council	The Clean Energy Council (CEC) is the spearhead of the clean energy industry in Australia. It represents hundreds of leading companies operating in the solar, wind, energy efficiency, hydro, bioenergy, energy storage, geothermal and marine sectors, along with over 5,800 solar installers as members.	High	Its mission is to work with local, State and Federal governments to solve technical, policy and financial problems in the challenges faced by the clean energy sector.	Enel is a key member with a presence in important working groups such as the Grid Directorate and Connection Reform Initiative, among others.	During 2021, Enel supported the CEC in several consultation responses on post-2025 energy market design reforms and new regulatory frameworks affecting essential services, asset connection, storage integration and renewable energy zones. Moreover, Enel collaborated on the Connection Reform Initiative to co-design 11 proposals to improve the renewable framework and connection process. Finally, Enel contributed to the "Best Practices Guide for Engaging with Australian First Nations Peoples on Renewable Energy Projects" and the "Australian Guide to Agrisolar for Large-Scale Solar".	
Solar Energy Industry Association	The Solar Energy Industries Association (SEIA) is the national trade association for the solar and solar + storage industries. SEIA advocates policies that will enable solar to reach 30% of US electricity generation by 2030, create jobs in every community, and establish fair market rules that promote competition and the growth of reliable, low-cost solar power.	High	SEIA focuses on US Federal legislative and administrative advocacy. It works to defend the interests of the solar energy industry.	Enel Green Power North America takes part in SEIA's Trade Council. Enel Regulatory Affairs, Institutional Affairs, HSEQ, Legal, and Business Development Siting and Permitting staff participate in SEIA's committee-level work on policy design, leveraging the trade association's resources in federal electricity market design, project siting, trade policies, and climate discussions. Institutional Affairs also does joint advocacy before Congress and the Administration.	Advocacy for Federal legislation to accelerate the opening to wind, solar, energy storage, transmission and green hydrogen technologies.	

		Main positions on climate change				
Industrial association	Description	Level of alignment with the Paris Agreement	Main actions	- Enel's main roles within the association	Main actions developed in 2021	
International Emissions Trading Association	The International Emissions Trading Association (IETA) is a not-for- profit corporate organization with more than 100 members across companies, geographies and disciplines serving GHG emission trading markets worldwide.	High	IETA's mission is to enable companies to engage in climate action and establish effective market-based trading systems for greenhouse gas (GHG) emissions. In pursuit of its mission, it aims to: a) promote an integrated view of carbon markets and prices; b) participate in the design and implementation of national and international rules and guidelines; and c) provide up-to-date and credible information on emission trading.	Enel holds a position on the Board of IETA, contributing to help focus attention on ensuring a truly sustainable adoption of Emission Trading systems worldwide. Enel is also active in working groups and task forces.	During 2021, IETA's activities focused on exploring how emission trading can facilitate increased ambition in both the private and public sectors. IETA contributed substantially to the success of the COP 26 negotiations on collaborative approaches. It has been an active participant in the efforts of the Task Force on Scaling Voluntary Carbon Markets (TSVCM). At the regional level, the IETA has contributed to the European Commission's proposal to strengthen the EU ETS and to increase climate ambition. It also supports the emergence of carbon pricing schemes in the Americas and Asia. It does so based on the firm belief that emission trading can enhance ambition while ensuring a high level of environmental integrity.	
Canadian Renewable Energy Association	Canada's leading renewable energy trade association. This organization supports wind, solar, energy storage and all renewable technologies.	Medium	It engages with Federal and Provincial policies to support renewable energy development.	It supports carbon tax, electrification, works towards Canada's 2050 Net-Zero goal, encourages and improves border entry processes, monitors and aids supply chain and tariff priorities.	It advocates support for the implementation of the federal enhanced climate action plan "A Healthy Environment and a Healthy Economy". It further advocates support for Alberta's energy storage policies and Saskatchewan's renewable energy supply plans.	
Confederación Española de Organizaciones Empresariales (CEOE)	CEOE is the national business association representing and defending Spanish companies and entrepreneurs. CEOE voluntarily integrates 2 million companies and freelancers from all business sectors. In Europe, it is an active part of BusinessEurope, which brings together European business associations.	Medium	It represents and defends Spanish companies and entrepreneurs in economic, social and taxation matters etc. before the government, state agencies, trade unions, political parties and international institutions. It carries out analyses of laws and government proposals, and makes proposals on behalf of their members.	Endesa is a member of the commission for industry, international relations, health and consumer affairs, and the finance economy.	In 2021 Enel participated on various commissions where topical issues at the European and Spanish level were analyzed.	
Zero Emission Transport Association	The Zero Emission Transport Association (ZETA) is a coalition of companies in the energy industry advocating full adoption of electric vehicles (EVs) by 2030.	High	ZETA focuses on US Federal legislative and administrative advocacy. It works to defend the interests of the industry for the electrification of transport.	Through the US Federal Public Policy & Institutional Affairs function, Enel North America serves on the ZETA Board of Directors. Institutional Affairs and the Enel X e-Mobility team leverage the trade association's resources in the areas of Federal trade policy, electrification of transport and discussions on the climate. Institutional Affairs also does joint advocacy before Congress and the Administration.	Advocacy for federal legislation to accelerate the uptake of electric vehicles.	

	Description	Main positions on climate change		_			
Industrial association		Level of alignment with the Paris Agreement	Main actions	Enel's main roles within the association	Main actions developed in 2021		
Kyoto Club	Coordination of the environmental, industrial, and business representation association that offers analysis, seminars and studies on the topic of climate change.	High	Development of documents, position papers, workshops, training courses, campaigns and projects aimed at professionals, operators in the sector, public administrators and students concerning the latest issues in the energy-environment sector, from renewables to e-mobility and the circular economy.	Enel is a member of the Kyoto Club and participates in round tables on renewable development, energy efficiency, environmental education and resilience to climate change.	Joint working tables on renewables development, advocacy activities and policy proposals on the energy transition.		
Foundation for Sustainable Development	The Foundation for Sustainable Development is an authoritative point of reference for the main sectors and players in the green economy. It supports companies and organizations that share a common pathway to sustainability.	High	Energy and climate, green strategies, waste and circular economy, green city, sustainable mobility. Organizer of the "States General of the Green Economy".	Enel is a founding member of the Foundation and regularly participates in the "States General of the Green Economy", the main initiative on the topic of green solutions.	Enel has supported and contributed with its representatives to the "States General of the Green Economy", and has promoted several occasions for discussion on issues of common interest related to the energy transition.		
Elettricità Futura	Elettricità Futura is the main association of Italian electricity companies. It defends their interests and creates value by supporting the sector in the energy transition process.	High	Elettricità Futura represents Associates and their issues on institutional tables in Italy and Europe. It promotes networking among companies through meetings and initiatives on specific topics, including working groups and technical tables on energy and energy transition issues.	Enel is a shareholder in Elettricità Futura and actively participates in working groups and technical tables.	 Positioning on the European Commission's "Fit for 55" package. Analysis of and support for compliance with national ETS regulations. Participation in positioning of the association with regard to PPA for RES power plants. Participation in joint positioning with Confagricoltura regarding the development of photovoltaics in agricultural areas. #GreenDealNow campaign to promote the diffusion of RES 		

The Enel governance model to face climate change

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Competences of corporate bodies in relation to climate change

The corporate governance system of Enel SpA (Enel or the "Company") complies with the principles contained in the **Italian Corporate Governance Code**⁽²⁾ (the "Corporate Governance Code"), January 2020 edition, to which the Company adheres, and with international best practices. The corporate governance system adopted by Enel and the Group of companies it heads is essentially oriented towards the goal of sustainable success, given that it is aimed at creating value for shareholders over the long term, aware of the environmental and social importance of the Group's operating activities and the consequent need to proceed with adequate consideration of all the interests involved.

The Board of Directors of Enel SpA:

- Pursuant to the Articles of Association, the Board of Directors of Enel SpA is endowed with broad powers for the **ordinary and extraordinary administration** of the Company and has the authority to carry out any action deemed appropriate for the implementation and achievement of the corporate purpose.
- It plays a central role in corporate governance as the body vested with powers related to the strategic, organizational and control policies of the Company and the Group, the sustainable success of which it pursues. In this context, the Board examines and approves the company's strategy, including the annual budget and the Business Plan (which incorporate the main objectives and actions planned, including with regard to sustainability issues, to drive the energy transition and tackle climate change), taking into consideration the analysis of issues relevant to the generation of long-term value and thus promoting a sustainable business model.
- It plays a guidance role and provides an assessment of

the adequacy of the Internal Control and Risk Management System (so-called "ICRMS"). In this regard, in particular, the Board defines the nature and level of risk compatible with the strategic objectives of the Company and the Group, including in its assessments any elements that may be relevant in the perspective of the Company's sustainable success. The ICRMS consists of the set of rules, procedures and organizational structures aimed at enabling the identification, measurement, management and monitoring of the main corporate risks, including risks related to climate change.

- The Board defines the remuneration policy for Directors, Auditors and Key management personnel, based on the pursuit of the Company's sustainable success and taking decarbonization and energy transition considerations into account, and submitting this policy to the Shareholders' Meeting for approval.
- During 2021, the Board addressed climate-related issues, reflected in the strategies and related implementation methods in 8 of the 16 meetings held, in particular during: (i) the review and approval of the Business Plan of the Company and the Group; (ii) the update to the Code of Ethics and the Human Rights Policy; (iii) the definition of Enel's remuneration policy for 2021; (iv) the review of the contents of the 2020 Sustainability Report, coinciding with the Consolidated Non-Financial Statement pursuant to Legislative Decree No. 254/2016 for the same year. In addition, it discussed climate-related issues as part of the in-depth studies dedicated to legislative proposals and investor dialog activities.

In accordance with the provisions of the Italian Civil Code, the Board of Directors has delegated part of its management responsibilities to the Chief Executive Officer and, based on the recommendations of the Italian Corporate Governance Code, and provided for under the relevant Consob regulations, has appointed the following Board Committees, which provide recommendations and advice.

⁽²⁾ Available on the Borsa Italiana website (at https://www.borsaitaliana.it/comitato-corporate-governance/codice/2020.pdf).

The Corporate Governance and Sustainability Committee:

- Assists the Board of Directors in assessment and decision-making activities concerning the Company's and Group's corporate governance and sustainability, including climate change issues and the dynamics of the Company's interaction with all the stakeholders.
- With regard to climate change issues, it examines, inter alia, (i) the climate objectives set out in the Sustainability Plan; (ii) the methods for implementing the sustainability policy; (iii) the general approach and structure of the contents of the Non-financial Statement and the Sustainability Report (possibly as a single document), as well as the completeness and transparency of the information contained therein, including on climate change, and their consistency with the principles laid down by the reporting standard used, issuing a prior opinion on this matter to the Board of Directors called upon to approve these documents.
- During 2021, the Board dealt with climate-related issues, reflected in the strategies and related implementation methods in 4 of the 5 meetings held, in particular during the review of: (i) the Sustainability Report 2020, coinciding with the Consolidated Non-Financial Statement pursuant to Legislative Decree No. 254/2016 for the same year; (ii) the materiality analysis and the guidelines of the Sustainability Plan 2022-2024; (iii) the proposed update of the Human Rights Policy; (iv) updates on the main activities carried out in 2021 by the Enel Group in the field of sustainability, on the status of implementation of the Sustainability Plan 2021-2023 and regarding Enel's inclusion in the main sustainability indices.

The Control and Risk Committee:

- The Committee has the task of supporting the Board of Directors' assessments and decisions relating to the ICRMS, also as concerns climate risks and those relating to the approval of periodic annual and interim financial and non-financial reports.
- It assesses the suitability of annual and interim financial and non-financial information to represent correctly the business model, the strategies of the Company and the Group it heads, the impact of the Company's activities and achievements, coordinating with the Corporate Governance and Sustainability Committee as regards periodic non-financial information.
- It examines the relevant issues for the purposes of the ICRMS dealt with in the Non-financial Statement and the Sustainability Report (possibly as a single document) and containing the Company's climate disclosure, issuing a prior opinion on the matter to the Board of Direc-

tors, which is called upon to approve these documents.

• During 2021, the Board dealt with climate-related issues, reflected in the strategies and related implementation methods in 5 of the 17 meetings held, in particular during the review of: (i) the relevant issues for the purposes of the ICRMS dealt with in the Sustainability Report 2020, coinciding with the Consolidated Non-Financial Statement pursuant to Legislative Decree No. 254/2016 for the same year; (ii) the in-depth analyses of the risks related to macroeconomic and environmental dynamics and climate risks; (iii) the proposed update to the Human Rights Policy; (iv) the analysis of the degree of compatibility of the main risks related to the strategic objectives of the Business Plan.

The Nomination and Compensation Committee:

 Supports the Board of Directors in the assessments and decisions relating to the compensation of the directors and key management personnel. In this regard, compensation policy for 2021 specifies that a sizeable portion of the variable compensation, both short and long term, of the Chief Executive Officer/General Manager and Key management personnel is connected, inter alia, to performance objectives concerning sustainability and climate.

The Chairman of the Board of Directors:

- In exercising the function of stimulating and coordinating the activities of the Board of Directors, plays a proactive role in the process of approving and monitoring corporate and sustainability strategies, which are strongly oriented toward combating climate change through decarbonization and the electrification of consumption.
- During 2021, the Chairman also chaired the Corporate Governance and Sustainability Committee.

The Chief Executive Officer:

- In exercising these rights, the CEO has defined a sustainable business model by identifying a strategy targeted toward guiding the energy transition toward a low-carbon model; furthermore, within the scope of the powers assigned, the CEO manages the business activities connected to Enel's commitment to combating climate change.
- He/she reports to the Board of Directors on the activities carried out when exercising proxies, including the

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business activities aimed at maintaining Enel's commitment to tackling climate change.

- He/she represents Enel in various initiatives dealing with sustainability, holding relevant positions in institutions of international importance such as the Sustainable Energy for All (SEforALL), or the Global Investors for Sustainable Development (GISD) Alliance launched by the United Nations in 2019.
- As the person primarily responsible for the management

of the Company, **he/she is the person most empowered to deal with institutional investors**, providing them with any appropriate clarifications on matters falling within the management powers entrusted to him/her, in line with the Policy for the management of engagement with institutional investors and with the generality of Enel's shareholders and bondholders.

• He/she holds the role of Director in charge of setting up and maintaining the ICRMS.

The Enel organizational model for management of climate-related issues

Enel has a management team that assigns the responsibilities related to climate topics to the specific Functions that contribute toward guiding Enel's leadership in energy transition. Each area is responsible for managing the risks and opportunities related to climate change for their own area of competence.

The Holding Functions are responsible for consolidating the scenario analysis and the management of the strategic and financial planning process aimed at promoting the decarbonization of the energy mix and the electrification of energy demand, as key actions in combating climate change.

The Global Business Lines are responsible for the development of activities related to promoting renewable generation, the optimization of heat capacity, the digitalization of the electricity grid and the development of business solutions that enable energy transition and combating climate change.

The Global Service Functions are responsible for adopting sustainable criteria, including climate change, in supply chain management and developing digital solutions that develop the development of technologies enabling energy transition and combating climate change.

On a local level, **the Regions and Countries** have the task of promoting decarbonization and guiding the energy transition toward a low-carbon business model, within their areas of responsibility. Furthermore, the Europe and Euro-Mediterranean Affairs Function is responsible for defining the Group's position on climate change, low-carbon policies and the regulation of the international carbon market on a European level.

Additionally, **the Group Investments Committee**, chaired by the Chief Executive Officer, grants approval for the expenses for investments related to business development. This committee also has the task of guaranteeing that all investments are fully in line with the Group's commitment to promoting a low-carbon business model and reaching decarbonization by 2050.

Incentives system concerning climate change

The compensation policy for 2021 provides that a significant portion of the short- and long-term variable compensation of the Chief Executive Officer/General Manager and Key management personnel will be tied to performance objectives concerning sustainability, including some specific to climate change. Specifically, with regard to:

the long-term variable remuneration of the Chief Executive Officer/General Manager and executives with strategic responsibilities, for which, since 2018, a quantitative climate objective has been included, i.e. the reduction of CO₂ emissions per kWh_{eq} of the Enel Group

over the next three years, with the weight of 10% of the total long-term variable remuneration. In addition, a quantitative climate target related to the percentage of consolidated net renewable installed capacity to total consolidated net installed capacity has been included since 2020, which was also confirmed in 2021 with the 10% weight of long-term variable compensation;

 variable short-term remuneration (MBO), the targets can include those relating to the specific company function of each manager. For example, they may include objectives related to the introduction of innovative products and services into the business for managers within Holding Functions, the development of renewable energy for managers within the Enel Green Power and Thermal Generation Global Business Line or related to energy transition solutions within the Enel X Global Retail Business Line.

The Enel governance model to tackle climate change





Enel's impact on climate change

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Electric energy is essential to guarantee the sustainable progress of modern societies and represents a key factor in reaching the goals of the United Nations 2030 Agenda, in particular SDG 7, to guarantee everyone accessible, reliable, sustainable and modern energy, and SDG 13, regarding climate action.

The generation of electricity has always played a key role in climate change, as the use of fossil fuels is a considerable source of greenhouse gas emissions. Technological development, in particular in the area of renewable energies, has however completely transformed this scenario by making electricity one of the main solutions for reducing the carbon footprint world-wide. Enel is aware of these impacts and implements specific actions to minimise them, promoting the decarbonization of the energy system and the electrification of the energy demand. As a result this reduces the greenhouse gas emissions along the entire value chain.

Enel's generation from fossil fuels (mainly gas and coal) traditionally represents the main source of greenhouse gas emissions. In particular, in 2021 the direct emissions (Scope 1) related to generation from fossil fuels were about 51.2 mil t CO2, whereas indirect emissions (Scope 3) related to the extraction and transport of fuels were 11.2 mil t_{an} of CO₂ (also considering those related to the transport of raw materials). Enel is reducing this impact by accelerating the decommissioning of coal-fired plants, with a reduction of capacity in 2021 of around 2 GW compared to 2020. In parallel, the Group is increasing the development of renewable capacity that, together with the contribution of nuclear generation, has avoided 72.8 mil $\rm t_{ea}$ of $\rm CO_2$ emissions. Furthermore, Enel is actively committed to the development of electricity storage systems that support the integration of renewable capacity, with a total installed capacity of 217 MW in 2021. The decarbonization of the energy mix also has a positive impact on the reduction of indirect greenhouse gas emissions (Scope 2) associated with the acquisition of electricity to cover the requirements of business activities.

The management of the electricity grid involves the generation of indirect greenhouse gas emissions (Scope 2) associated with technical energy losses on the grid of 3.0 mil t_{eq} of CO₂ in 2021 (according to the "location based" calculation methodology). Enel is actively investing in the digitalization and automation of the electricity grid to reduce these losses and increase reliability, while promoting the diffusion of renewables in the energy system.

In the framework of the end customer, the use of the products sold by Enel's customers generates GHG emissions that are accounted for as indirect (Scope 3). In particular, the emissions connected to the use of electricity sold to customers equalled approximately 24.0 mil t_ of CO₂, whereas those related to gas sold equalled 22.2 mil t_{e_a} of CO_2 . Enel regularly monitors these emissions and adopts measures aimed at minimising them. Furthermore, Enel offers its customers technical solutions to reduce carbon emissions related to their energy consumption in a wide range of sectors, including transport, property management as well as industrial processes and services. For example, through Enel X Global Retail the Group is promoting the spread of charging infrastructures for electric vehicles (0.3 million charging points installed by 2021⁽³⁾), the development of energy efficiency solutions, distributed generation, advisory services, smart public lighting and circular cities.

⁽³⁾ Public and private charging points installed. Includes interoperability points, net of which there are 157 thousand charging points installed at the end of 2021.

Enel's impact on climate change

CO ₂ free ge	eneration ⁽¹⁾	Digitalization of	the grid	Electrification o and promotion o	f the energy demand ff energy efficiency
72.8 million t_{eq} of avoided CO_2	 Avoided CO₂ emissions from electricity generation Contribution to CO₂ emission reduction in other sectors⁽²⁾ through a zero- emission energy mix 	45.0 million end users with active smart meters	• By providing data in quasi real time, smart meters permit an efficient management of the energy supply and demand, promoting informed and sustainable consumption	319 thousand charging points for electric mobility	 Contribution to CO₂ emissic reduction in other sectors through the electrification of consumption, including transport by promoting e-mobility
217 MW	 Increase in storage capacity⁽³⁾ 	2.77 number of service in- terruptions per client (SAIFI) ⁽⁴⁾	• A reliable and resilient grid helps reduce the CO ₂ emissions associated with grid losses	2.8 million smart public lighting points	 Energy efficiency solutions for reducing consumption (residential, city and industry)
Value chain	Generation		Networks		Retail 🕂
51.2 million t _{eq} CO ₂	• Direct greenhouse gas emissions for electricity generation (Scope 1) ⁽⁵⁾	3.0 million t _{eq} CO ₂	 Indirect greenhouse gas emissions associated with technical losses from the grid (Scope 2)⁽⁶⁾ 	24.0 million t CO ₂	• CO ₂ emissions associated with the use of electricity sold on the retail market (Scope 3)

Includes the generation of renewable and nuclear energy.
 The GHG Protocol requires considering the consumption of electricity when calculating the Company's carbon footprint as indirect emissions (Scope 2).
 Includes the contribution of the Enel Green Power and Thermal Generation Business Line.

(4) SAIFI, System Average Interruption Frequency Index.
(5) Other Scope 1 emissions have been disclosed in the section "Enel's performance in combating climate change". See "Enel's carbon footprint" for further details.
(6) Other Scope 2 emissions have been disclosed in the section "Enel's performance in combating climate change". See "Enel's carbon footprint" for further details.



Climate scenarios

The Group develops short, medium and long-term scenarios for the energy industry and for macroeconomic and financial conditions in order to support its strategic and industrial planning, capital allocation, strategic positioning, and assessment of risk and resilience of the strategy.

Analysis and benchmarking of external energy transition scenarios was also carried out which, together with the analysis of relevant reports on macroeconomic, commodity and climate trends, fed internal modeling for definition of the assumptions of long-term scenarios.

Global energy scenarios are typically classified by scenario families based on the level of climate ambition:

- Business as usual/Stated policies: energy scenarios based on business as usual/current policies. They provide a fairly conservative benchmark for the future, representing the evolution of the energy system in the absence of additional climate and energy policies. These scenarios do not achieve the goals of the Paris Agreement.
- Paris Aligned: energy scenarios aligned with the Paris Agreement, i.e., that include a goal of limiting global average temperature increase to "well below 2 °C" compared to pre-industrial levels. To achieve this goal, scenarios in this category consider new and more ambitious policies for end-use electrification and the development of renewables.
- Paris Ambitious: global energy scenarios that chart a path toward Net-Zero GHG emissions by 2050, consistent with the Paris Agreement's most ambitious goal of stabilizing the average increase in global temperatures within 1.5 °C. All scenarios in this group agree that the main drivers of the energy transition to Net-Zero by 2050 are the process of end-use electrification and the increase in electricity generation from renewables in both the medium and long term. They differ, however, on the additional solutions needed in the long term to close the gap to the Net-Zero emissions target, assigning different levels of importance to the contributions of various technologies and changes in consumer behavior.

The issues of industrial and economic transition towards solutions that can reduce CO₂ concentrations in the atmosphere are the characteristic elements of the "**energy transition scenario**", while the issues related to future trends of climate variables (in terms of acute and chronic phenomena) define the so-called "**physical scenario**", which takes acute phenomena (heat waves, floods, hurricanes, etc.) into account. This includes their potential impact on industrial assets, as well as chronic phenomena related to structural changes in the climate, such as the trend of temperature increase, sea level rises, etc., which



may result, for example, in a steady change in plant output and a change in electricity consumption profiles in the residential and commercial sectors.

The scenarios are construed with an overall framework in mind to ensure consistency between transition assumptions and climate projections.

The adoption of these scenarios and their integration into corporate processes takes account of the guidelines of the TCFD and enables the assessment of the risks and opportunities connected with climate change. For this reason, the Group has created a channel of constant dialog and collaboration with experts on climate change, for example the Department of Geosciences of the International Centre for Theoretical Physics (ICTP) in Trieste. Furthermore, it is structured for managing high-resolution post downscaling climatic scenarios and has started projects for developing the skills needed to translate the complexity of climate models into information that is useful for understanding the effects, at a local level, on business and support strategic decisions.

The acquisition and processing of substantial amounts of information and data required for the definition of scenarios, as well as the identification of the methodologies and metrics needed for interpreting complex very high-resolution phenomena and, in the case of climate scenarios, requires a continuous dialog with both external as well as internal references. For this purpose, the Group operates with a platform approach, equipping itself with tools that guarantee solid and accessible information. The process that translates the scenario phenomena into information that is useful for industrial and strategic decisions can be summarized in five steps:



Identification of trends and factors relevant to the business (e.g., electrification of consumption, heat waves, etc.)

Development of **link** functions connecting climate/transition scenarios and operating variables

Identification of risks and opportunities

Calculation of impacts on business (e.g., change in performance, losses, Capex)

Strategic actions: definition and implementation (e.g., capital allocation, resilience plans)

The transition scenario

The transition scenario describes how the generation and consumption of energy evolves in various sectors in an economic, social, policy and regulatory context consistent with different trends in greenhouse gas (GHG) emissions and, therefore, correlated with the RCP climate scenarios. The scenarios used by the Group on a global level are the result of a benchmark analysis of external scenarios and currently known policy objectives. For the main countries where the Group is present, it processes coherent transition scenarios, using energy system models; if internal models are not available, risks and opportunities are evaluated by analyzing scenarios produced by third parties, as described previously.

The main assumptions considered when defining the transition scenarios concern:

- the local policies and regulatory measures to fight climate change, such as measures for reducing carbon dioxide emissions and fuel consumption, to increase energy efficiency and the decarbonization of the electricity sector;
- the global macroeconomic and energy context (for example, in terms of gross domestic product, population and commodity prices), considering international

benchmarks such as the International Energy Agency (IEA), Bloomberg New Energy Finance (BNEF), International Institute for Applied Systems Analysis (IIASA)⁽⁴⁾, and others;

• the evolution of technologies for generation, conversion and energy consumption, in terms of both technical operating parameters and costs.

In 2021, Enel revised its medium- to long-term energy transition scenario framework, defining three alternative scenario narratives.

- Paris scenario envisions the achievement of the Paris Agreement targets, thus a significantly higher level of climate ambition than business as usual. The increased ambition is supported by greater electrification of consumption and increasing development of renewables.
- Slow Transition scenario a scenario characterized by a slower energy transition, which means the Paris Agreement targets will not be met. This scenario involves a smaller increase in renewables and a less sustained electrification process than the Paris scenario, especially in the short term (delayed implementation of the transition).
- Best Place scenario is constructed to evaluate as-

⁽⁴⁾ As regards IIASA, for example, consideration was given to the fundamentals driving the commodity demand underlying the "Shared Socioeconomic Pathways (SSPs)", in which different scenarios are projected that describe socioeconomic and policy evolution in line with the climate scenarios. The information deriving from the "SSPs" is used, together with internal models, to support the long-term forecasts, such as, for example, those for commodity prices and electric demand.

sumptions for improvement over the Paris scenario. The objectives of the Paris Agreement are also achieved in this scenario, but a wider range of technological options is considered, i.e. a greater penetration of green hydrogen generated through renewable electricity, used more widely in hard-to-abate sectors, and facilitating the process of decarbonization towards Net-Zero emissions.

Enel has chosen the Paris scenario as a benchmark for long-term planning, which envisages the achievement of the objectives of the Paris Agreement, unlike last year, when the reference scenario was current policies. This is with the conviction that, globally speaking, governments, businesses, organizations and citizens will effectively participate in the collective effort to mitigate greenhouse gas emissions. The increase in the Net-Zero commitments of States during 2021, which currently cover 88% of global emissions⁽⁵⁾, and the outcome of COP 26, support the choice of choosing a scenario that achieves the Paris objectives as a long-term benchmark for Enel. With respect to the possibility of assuming the achievement of the most challenging objective of the Paris Agreement as a benchmark scenario for long-term planning, i.e. to stabilize the average global temperature within +1.5 °C, there remains the uncertainty that some countries could maintain inertial trajectories, delaying the process of decarbonization towards Net-Zero emissions by 2050.

Having said this with respect to the external context, the Enel Group operates a business model in line with the maximum ambition of Paris Agreement objectives, namely, one that is consistent with a global average temperature increase of 1.5 °C by 2100. Enel has set a long-term goal to achieve zero direct emissions (Scope 1), with fully renewable electricity generation, and zero emissions related to retail sales of power (Scope 3).

Assumptions concerning commodity price trends as inputs to the Paris scenario are consistent with external scenarios that achieve Paris Agreement targets. In particular, a sustained growth in the price of CO_2 , caused by the gradual reduction of permit supply in the face of increasing demand, and a stabilization of coal prices, due to decreasing demand, are considered in 2030. With regard to gas, it is believed that price tensions will ease in the coming years in light of a realignment between supply and demand at a global level. Finally, oil prices are expected to stabilize gradually, for which we estimate peak demand around 2030.



 Source: IEA – Sustainable Development Scenario and Net Zero Scenario, BNEF, IHS Green Case Scenario, Enerdata Green Scenario. N.B. the scenarios used as benchmarks were published at different times during the year and may not be updated to include the latest market dynamics.

(2) Actual.

⁽⁵⁾ At December 28, 2021.

The physical climate scenario

Among the climatic projections developed by the "Intergovernmental Panel on Climate Change" (IPCC) on a global scale, **the Group has chosen three, characterized by a** **specific emissions level** connected to the "Representative Concentration Pathway" (RCP).

Scenario	Average temperature increase in comparison to pre-industrial levels (1850-1900)
RCP 2.6	+1.5 °C by 2100 (the IPCC projects approximately +1.8 °C in on average with a 78% probability of remaining below +2 °C) ⁽⁶⁾ . The Group uses this scenario for the assessment of physical phenomena and for the analyses that consider an energy transition coherent with ambitious objects in terms of mitigation. In analyses that consider both physical and transition variables, the Group associates the SSP1-RCP 2.6 scenario with the Paris and Best Place scenarios.
RCP 4.5	+2.7 °C by 2100 . Enel has identified this scenario as the one that is best suited for representing the current global climatic and political context and is coherent with the overall estimates of temperature increase that current policies consider and as announced on a global level ⁽⁷⁾ . In analyses that consider both physical and transition variables, the Group associates the SSP2-RCP 4.5 scenario with the Slow Transition scenario.
RCP 8.5	+4.4 °C by 2100. Compatible with a worst case scenario where no particular measures are taken to combat climate change ("Business as usual").

The climate scenarios are global in nature. Accordingly, in order to determine the effects in the areas of relevance for the Group, as previously described, a collaborative initiative has been started with the Department of Geosciences of the International Centre for Theoretical Physics (ICTP) in Trieste. As part of this collaboration, the ICTP provides projections for the main climate variables with a grid resolution that varies from approximately 12 km² to approximately 100 km² and a forecast horizon of 2020-2050. The main variables are temperature, rainfall and snowfall and solar radiation. With respect to previous analysis carried, the current studies are based on the use of multiple regional climate models: the one developed by ITP combined with five other simulations, selected as representative of the ensemble of climate models currently available in the literature. This technique is usually adopted in the scientific community to obtain a more robust, bias-free analysis mediated by the various assumptions that could characterize the single model.

In this phase of the study, **the future projections were** analyzed for Italy, Spain and all countries of interest to the Group in Latin America, obtaining, also due to the use of the ensemble of models, a more definite representation of the physical scenario. In addition, and in a similar manner, the Group is also analyzing climate projection data for North America.

The analyses performed on the physical scenarios considered both chronic phenomena and acute phenomena. Some of these phenomena require an additional level of complexity, as they do not only depend on climatic trends but also on the specific characteristics of the territory, and require an additional modelling activity for their high-resolution representation. For this reason, in addition to the climate scenarios provided by ICTP, the Group also uses Natural Hazard maps, which make it possible to obtain, with a high spatial resolution, the return times of a series of events, such as storms, hurricanes and floods. The use of these maps, as described in the section "Risks and strategic opportunities related to climate change", is widely consolidated in the Group, which already uses this data based on a historical perspective to optimize the insurance strategies. Furthermore, work is under way in order to be able to use this information also when processed in compliance with the projections of the climate scenarios.

Italy

Acute phenomena: for Italy, the acute rainfall phenomenon was analyzed first, studying the variation of daily rainfall above the 95th percentile, calculated as average annual millimeters in the periods of reference. As shown in the figure below on the left, comparison of the period 2030-2050 with the historical period 1990-2020, in the RCP 2.6 scenario, suggests heavy rainfall will increase primarily in the north-east and along the Tyrrhenian coast significantly. Interestingly, again in RCP 2.6, this general increase in extreme rainfall is accompanied by a slight decrease in the annual sum of daily precipitation excluding acute rainfall (figure on the right). The same dichotomy between intense and average rainfall can also be observed in the other scenarios (RCP 4.5 and 8.5).

⁽⁶⁾ IPCC Fifth Assessment Report, Working Group 1, "Long-term Climate Change: Projections, Commitments and Irreversibility".

⁽⁷⁾ Climate Action Tracker Thermometer, global warming estimates for 2100 considering the current "Policies & Action" and "2030 Targets Only" (updated as of November 2021).

Acute rainfall and average rainfall (i.e., total rainfall net of acute rainfall): difference between RCP 2.6 (2030-2050) and historical values (2000-2020)



As already shown in the analyses previously published by the Group, heat waves and fire risk will also undergo important variations, both of which increase in the various climate scenarios considered. In particular, fire risk is described through the Fire Weather Index (FWI), a widely used indicator at international level that takes into account temperature, humidity, rain and wind in order to estimate a fire risk index. The data provided by the FWI can be useful in characterizing fire risk trends to support the business in managing it properly. The studies conducted, which examine the change in projections to 2030-2050 compared to 1990-2010, show that in all scenarios there is an increase in the number of high-risk days (index value > 45) in the summer season. This change mainly affects the islands and the southern regions of the country, where the increase in extreme risk days ranges from about +6 to +8 days compared to the historical period.

Chronic phenomena: chronic changes in temperature can be analyzed to obtain information on the potential effects on cooling and heating demand in local energy systems. Similar to what was done in 2020, Heating Degree Days (HDD) were used to measure heating requirements This is the sum, extended to all days of the year with $T_{average} \leq$ 15 °C, of the differences between the indoor temperature (T_{indoor} assumed as 18 °C) and the average temperature, and the Cooling Degree Days (CDD), which is the sum, extended to all days of the year with $\rm T_{\rm average} \ge 24~^\circ C$, of the differences between the $\rm T_{average}$ and $\rm T_{indoor}$ (assumed as 21 °C), respectively for heating and cooling requirements. The analysis for Italy was refined both by increasing the number of models considered from 3 to 6, and by increasing the resolution of the data from about 50 km x 50 km to about 12 km x 12 km. Average country data were averaged over



the nation, weighting each geographic node by population through the use of Shared Socioeconomic Pathways (SSPs) associated with each RCP scenario. A reduction in heating demand is predicted over the 2030–2050 period from 7 to 15% compared to the 2000–2020 period in the different scenarios, while CDDs are consistently higher than over the historical period, with an increasing trend from the RCP 2.6 (+~50%) to the RCP 8.5 (+~100%) scenario.



With regard to rainfall, variations in the basins of interest for the Group's hydroelectric generation were analyzed. From a preliminary analysis, no significant changes should emerge, with a general trend of slight decrease in Southern Italy and slight increase in Northern Italy in the RCP 2.6 and RCP 4.5 scenarios.

Spain

Acute phenomena: as far as fire risk is concerned, the number of days at extreme risk (i.e. with Fire Weather Index > 45) is higher in the RCP 8.5 scenario than in the RCP 2.6

scenario, and always increasing compared to the historical average. In particular, the area of Spain that will see the greatest increase in the average number of days per year in the summer season characterized by high fire risk is the centre-south, in all future scenarios.



Increase in average number of days of high fire risk per year in summer under the various RCP scenarios compared with historical values (2000-2020)

Heat waves, as already highlighted in the analyses published previously by the Group, will be more geographically widespread and more frequent in the period 2030-2050, especially in the southern part of the country.

Finally, extreme precipitation will undergo variations in

Chronic phenomena: analysis of potential cooling and heating demand has been refined and updated in a similar way to that for Italy. In terms of Heating Degree Days (HDD) and Cooling Degree Days (CDD), compared to the period 1990-2020, HDDs are estimated to decrease in all scenarios in the period 2030-2050, from -8% in RCP 2.6 to -17% in RCP 8.5. The data also confirm an increase in CDDs (+35%) in the RCP 2.6 scenario and a change of +58% and +81% in the RCP 4.5 and RCP 8.5 scenarios, respectively.

With regard to rainfall, variations in the basins of interest for the Group's hydroelectric generation were analyzed. Comparing the period 2030-2050 with the period 1990-2009, data from a preliminary analysis do not show appreciable variations, with a general trend of slight decrease in southern Spain in all scenarios. frequency in most of Spain. Taking into consideration the annual average millimeters related to rainy days with intensity greater than the ninety-fifth percentile, a preliminary analysis shows a reduction in some areas in the south of the country already in the RCP 2.6 scenario.



Latin America

Acute phenomena: in exceptionally large countries such as Brazil, acute phenomena can show significantly different trends in the various areas. In order to have an overview of the entire continent and identify the areas of greatest interest for further study, some acute phenomena have been analyzed using standard metrics. Analyses were conducted by processing data from an ensemble of 6 climate models with a spatial resolution of 25 km x 25 km.

In order to study the phenomenon of extreme temperatures, the "Warm Spell Duration Index" (WSDI) was used, which considers heat waves characterized by at least 6 consecutive days with a maximum daily temperature above the 90th percentile. Comparing the period 2030-2050 with the period 1990-2020, the data show a significant increase in days characterized by heat waves already in the RCP 2.6 scenario, especially in some areas of Brazil, Colombia, Peru and northern Chile. This increase in extreme temperatures will be even more pronounced in the other scenarios, especially RCP 8.5.

For extreme precipitation, daily rainfall above the 95th percentile was considered, similar to what was done for Italy and Spain. Future changes for this phenomenon are less homogeneous. In the RCP 2.6 scenario, in some areas, such as northern Brazil and northern Argentina, reductions are projected, while in other areas, such as western Colombia and some areas of Brazil and Peru, increases in extreme rainfall are expected.

Warm Spell Duration Index (heat stress): difference between RCP (2030-2050) and historical values (2000-2020)



Chronic phenomena: for the main countries where Enel is present, a study was carried out on potential changes in heating and cooling demand related to chronic changes in temperature. Again, changes in Heating Degree Days (HDD) and Cooling Degree Days (CDD) over the period 2030-2050, compared to the period 1990-2020, were calculated from data from 6 models, with a resolution of 25 km x 25 km. Average country data were averaged over the nation, weighting each geographic node by population through the use of Shared Socioeconomic Pathways (SSPs) associated with each RCP scenario. In each country studied, CDDs increase progressively in all scenarios: in the

RCP 2.6 scenario they increase by 42% in Chile, while the increase is between 14% and 19% in the other countries examined. In the RCP 4.5 scenario, this increase becomes 108% for Chile and slightly more than 25% for Argentina, Brazil and Peru, while it stands at 20% for Colombia. The increase in CDDs with respect to the historical period is even more marked in the RCP 8.5 scenario. With regard to HDDs, in the RCP 2.6 scenario considerable reductions are estimated in Colombia (-51%), Brazil (-21%) and Peru (-15%). This trend intensifies in the RCP 4.5 scenario: ~-61% in Colombia, ~-28% in Brazil, and ~-20% in Peru.

CDDs and HDDs in the countries of interest to the Group: difference between RCP 2.6 and historical values (2000–2020)





With regard to rainfall, variations in the basins of interest for the Group's hydroelectric generation were analyzed. Initial analyses comparing 2030-2050 projections in the three scenarios to the historical period 1990-2009 show a predominant trend of chronic rainfall reductions. The most significant average decreases are projected in Chile and Colombia, with values just below 10%. A closer look at the average data in Chile shows that in the basins considered, the expected rainfall in the period 2030-2050 is in line with that already experienced in the last decade (2010-2019). These data highlight how climate change is already being experienced in these basins compared to the historical period taken as a benchmark.



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The strategy to tackle climate change

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The sustainable strategy developed in recent years and the integrated business model have allowed the Group to create value for all stakeholders, benefiting from the opportunities that emerge from the energy transition and from climate action. In this context, capital employment is centered on decarbonization through the development of assets for generation from renewable sources, on enabling infrastructure linked to the development of networks, and on the adoption of platform models, fully exploiting technological and digital evolution which will favor consumption electrification and the development of new services for end customers. The aim is to accelerate the decarbonization and electrification processes to allow the global warming containment goals to be achieved in accordance with the Paris Agreement.

In the last decade, thanks to cost reductions renewables have become the dominant trend in power generation, allowing decarbonization to proceed at a faster pace. It has been a decade of profound changes in the power generation mix, destined to continue at an ever increasing speed. The next decade will be crucial to achieving the goals set in 2015 by the Paris Agreement. At the same time, this period will also be characterized by increasing support for electrification, through which customers gradually convert their energy consumption to the electricity carrier, with ensuing improvements in spending, efficiency, emissions and price stability.

In order to benefit fully from all the opportunities emerging from the market in which it operates, the Group has identified two different business models, Ownership and Stewardship, on which it can rely to achieve the defined ambitions. The most appropriate and effective business model is identified according to the countries and regions of interest and the context of operations:

- the **Ownership business model**, in which the Group makes direct investments in renewables, networks and customers. This model is used when operating in countries where it can already leverage the entire value chain, from generation to integration with end customers. These countries are defined as "Tier 1", and include Italy, Spain and Romania in Europe and the USA, Brazil, Chile, Colombia and Peru in the Americas;
- the Stewardship business model, in which the Group invests capital in existing or newly established joint ventures or by acquiring minority shareholdings, in order to maximize the value of the know-how developed in the various businesses where it is present. This is done through the activation of specific contractual services



towards the partners or also through the subsequent valuation of these shares of the assets on the market. This model focuses mainly, but not exclusively, on "non Tier 1" countries, where the Group's presence is not integrated, and attempts are made to build partnerships with third parties to explore new countries and regions or to enhance the Group's operating experience in alternative contexts.

The strategy defined and the Group's positioning make it possible to affirm the commitment to anticipate the "Net-Zero" path by 10 years, from 2050 to 2040, for both direct and indirect emissions. Enel is committed to achieving a value of zero emissions, with no use of any carbon removal technology or nature-based solutions, in relation to the generation of energy and the sales of electricity and natural gas to end customers.

A pathway based on the implementation of certain fundamental strategic stages:

- accelerate the process of decarbonization of generation activities, gradually replacing the thermoelectric portfolio with new renewable capacity, as well as making use of the hybridization of renewables with storage solutions;
- by 2040, generate 100% of the electricity sold by the Group from renewable sources and by the same year to exit the gas retail business.



(1) Including 3.3 GW of managed renewable capacity.

2030 vision

Enel plans to **put together 210 billion euros between 2021 and 2030.** Of this amount, the Group plans to invest around 170 billion euros directly (up 6% on the previous Plan) through the Ownership (160 billion euros, primarily in Tier 1 countries) and Stewardship (10 billion euros) business models, with a further 40 billion euros catalyzed by the latter through third parties.

The **approximately 160 billion euros through the Ownership business model**, primarily in Tier 1 countries, will be dedicated:

• to Renewables, almost half (around 70 billion euros), for which an increase of around 84 GW of capacity is expected, compared to 2020, of which 9 GW of storage, bringing the installed renewable capacity at consolidated level to 129 GW by 2030 and thus reaching 80% of the total installed capacity. This should be achieved by leveraging a growing pipeline of approximately 370 GW and more than doubling the one presented last year, together with three global platforms for Business Development, Engineering and Construction and Operation and Maintenance activities. These investments will make it possible to reach 80% of electricity generation from renewable sources in 2030;

• a further investment of around 70 billion euros in the Infrastructure and Networks business, up by 10 billion euros compared to the previous Plan and concentrated in Europe, with the aim of strengthening the Group's position as a global operator in terms of size, quality, efficiency and resilience. This investment is expected to lead to a RAB ("Regulatory Asset Base") of 65 billion euros in 2030, along with the complete digitalization of the entire network customer base through smart meters. The development of the Group's activities in this area will benefit from the adoption of "Grid Blue Sky", a digital platform for managing grid portfolio assets as part of a unified global model that places the customer at the center of the value chain.

This capital allocation is expected to accelerate achieve-
ment of the Group's electrification and decarbonization goals. By 2030, the Enel Group expects to achieve a total managed renewable capacity of around 154 GW, tripling its portfolio at 2020, as well as to increase the network customer base by 12 million and promote the electrification of energy consumption, increasing the volumes of electricity sold by almost 30% while focusing on the development of "beyond commodity" services, such as the enhancement of the charging network for electric mobility or those related to behind-the-meter storage and electric buses, in collaboration with a number of partners.

2022–2024 Strategic Plan

During 2022-2024, Enel plans to **invest directly approximately 45 billion euros**, of which 43 billion euros through the Ownership business model, mainly in the growth of grids and renewables, and approximately 2 billion euros under the Stewardship model, through capital injections acquisitions of minority interests, while at the same time putting together 8 billion euros from third parties.

Of the Group's total investments planned under the Ownership and Stewardship models for 2022-2024, it is expected that:

- approximately 19 billion euros will be destined for Renewables, particularly in countries where the Group benefits from an integrated business with end customers. The Group's total renewable capacity is expected to increase to 77 GW from the 53 GW installed at the end of 2021. As a result, zero-emission generation is estimated to reach 77% in 2024 and CO₂ emissions per kWh are expected to fall by more than 35% over the same period compared to 2021, positioning the Group towards achieving its "Net-Zero" targets on schedule;
- around 18 billion euros will be destined for the Infrastructure and Networks business, up 12% on the previous Plan, as a result of increased investments in Europe, which are also expected to leverage the opportunities created by the National Recovery and Resilience Plans launched in the EU. As a result of these investments, which aim to improve network quality and resilience levels even further, the Group's RAB is estimated to reach 49 billion euros, up nearly 14% from 2021.

At Group level, ordinary EBITDA is expected to grow by 11% from 19.2 billion euros in 2021 to a figure of between 21.0 billion euros and 21.6 billion euros in 2024.

The following factors are expected to contribute to the growth of the Group's ordinary EBITDA:

• growth in Renewables is the main driver for the peri-

od, with an expected contribution of approximately 2.0 billion euros, out of a total contribution from the generation business of 2.9 billion euros. The evolution of the generation portfolio is expected to result in a 45% growth in Enel Green Power's EBITDA⁽⁸⁾ over the Plan period, specifically from 6.0 billion euros in 2021 to 8.7 billion euros in 2024;

- EBITDA for the Customers business is expected to grow by approximately 40% over the Plan period, reaching 4.9 billion euros in 2024 from 3.4 billion euros in 2021. This growth is driven by the Group's initiatives for an integrated strategy at commercial and generation capacity level, the contribution of electricity volumes in the free market and incremental needs for additional services;
- EBITDA in the Infrastructure and Networks business is expected to increase by 16% from 7.7 billion euros in 2021 to 8.7 billion euros in 2024. The main growth drivers are the increase in RAB, driven by higher investments, efficiency programs, tariff increases due to indexing to inflation, especially in Latin America, and the increase in distributed energy volumes.

The investments connected to the decarbonization of the generation mix, together with those connected to digitalization and increasing the efficiency of the distribution grid, as well as the offer of new services for promoting the electrification of consumption (such as electric mobility services or demand response), will contribute toward combating climate change (SDG 13). Enel expects in fact that approximately 94% of the consolidated investments during 2022-24 will directly contribute toward this goal. Furthermore, it is estimated that these investments will be aligned with the criteria of EU Taxonomy, with a percentage in excess of 85%, considering the substantial contribution toward the mitigation of climate change.

⁽⁸⁾ Including conventional generation business activities.

Main risks and opportunities connected with climate change

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The process of defining the Group's strategy is accompanied by a careful analysis of the risks and opportunities connected to it, also including the aspects related to climate change. Every year, before the Board of Directors examines the Strategic Plan, the Control and Risk Committee is presented with a quantitative analysis of the risks and opportunities related to the Group's strategic positioning, which includes aspects related to the climate, such as regulatory factors and weather and climate phenomena.

In order to identify the main types of risk and opportunity and their impact on the business associated with them in a structured manner consistent with the TCFD, we have adopted a **framework** that explicitly represents the main relationships between scenario variables and types of risk and opportunity, specifying the strategic and operational approaches to managing them, comprising mitigation and adaptation measures. Two main macro-categories of risks/ opportunities are identified:

• those connected with developments in physical variables;

 those connected to the evolution of the transition scenarios.

The framework described is achieved in a perspective of overall consistent, which makes it possible to analyze and evaluate the impact of the physical and transition phenomena according to solid, alternative scenarios that were created using a quantitative and model-based approach in combination with continuous dialog both with internal stakeholders and with authoritative external references.

The framework also highlights the relationships that link the physical and transition scenarios with the potential impact on the Group's business. These effects can be assessed over three time horizons: the short-medium term (1–3 years), in which sensitivity analyses based on the Strategic Plan presented to investors in 2021 can be performed; medium-term (until 2029), in which it is possible to assess the effects of the energy transition; and long-term (2030–2050), in which chronic structural changes in the climate should begin to emerge.

Scenario phenomena	Time horizon	Risk & opportunity category	Description	Impact	Management approach
Acute physical	Starting with short term (1-3 years)	Extreme events	Risk: especially extreme weather/climate events.	Extreme events can damage assets and interrupt operations.	The Group adopts best practices to manage the restoration of service as quickly as possible. We also work to implement investments in resilience (e.g., the Italian case). With regard to risk assessment in insurance, the Group has a loss prevention program for property risk that also assesses the main exposures to natural events, supported by preventive maintenance activities and internal risk management policies. Looking forward, the assessments will also include the potential impacts of long-term trends in the most significant climate variables.
Chronic physical	Starting with long term (2030-2050)	Market	Risk/opportunity: increase or decrease in electricity demand; increase or decrease in output.	Electricity demand is also affected by temperature, whose fluctuation can impact our business. Renewables generation can also be impacted by structural changes in resource availability.	The Group's geographical and technological diversification means that the impact of changes (positive and negative) in a single variable is mitigated at the global level. In order to ensure that operations always take account of weather and climate phenomena, the Group adopts a range of practices such as, for example, weather forecasting, real- time monitoring of plants and long- term climate scenarios to identify any chronic changes in renewable source availability.

Framework of main risks and opportunities

Scenario phenomena	Time horizon	Risk & opportunity category	Description	Impact	Management approach
Transition	Starting with short term (1-3 years)	Policy & Regulation	Risk/opportunity: policies on CO ₂ prices and emissions, energy transition incentives, greater scope for investment in renewables and resilience.	Policies concerning the energy transition and resilience can impact the volume of and returns on investments.	The Group is minimizing its exposure to risks through the progressive decarbonization of its generation fleet. The Group's strategic actions, which are focused on investment in renewables, grids and customers, enable us to mitigate potential threats and exploit the opportunities connected with the energy transition. The Group is also actively contributing to the formation of public policies through its advocacy efforts. These activities are conducted within platforms for dialogue with stakeholders called "Energy Transition Roadmaps" that explore national decarbonization scenarios in the various countries in which Enel operates in environmental, economic and social terms.
Transition	Starting with medium term (2025-2029)	Market	Risk/opportunity : changes in the prices of commodities and energy, evolution of energy mix, changes in retail consumption, changes in competitive environment.	Considering two alternative transition scenarios, the Group assesses the impact of rising trends in the proportion of renewable sources in the energy mix and the electrification of final energy consumption.	The Group is maximizing opportunities by adopting a strategy founded on the energy transition, the electrification of energy consumption and rapid growth in renewables output.
Transition	Starting with medium term (2025-2029)	Product & Services	Opportunity : increase in margins and greater scope for investment as a consequence of the transition in terms of greater penetration of	Considering two alternative transition scenarios, the Group assesses the impact of different trends in the electrification of energy consumption.	The Group is maximizing opportunities thanks to its strong positioning in new businesses and "beyond commodity" services .
	Starting with medium term (2025-2029)	Technology	 electrical transport and new technologies for the electrification and energy efficiency of final consumption. 	With the current trend in the penetration of electrification efficiency technologies, the Group considers two alternative transition scenarios to assess opportunities to scale up current businesses.	The Group is maximizing opportunities thanks to its strong positioning in global networks.

In order to facilitate the proper identification and management of risks and opportunities related to climate change, a **Group policy** was published in 2021 that describes common guidelines for assessing these risks and opportunities. The "Climate change risks and opportunities" policy defines a shared approach for the integration of climate change and energy transition issues into the Group's processes and activities, thus informing industrial and strategic choices to improve business resilience and long-term sustainable value creation, consistent with the adaptation and mitigation strategy. The main steps considered in the policy are as follows:

 Prioritizing of phenomena and scenario analysis. These activities include the identification of physical and transition phenomena relevant to the Group and the consequent development of scenarios to be considered and developed through analysis and processing of data from internal and external sources. Functions can be developed for the phenomena identified that link the scenarios (e.g. data on the change in renewable resources) to business operations (e.g. the change in potential output);

- impact assessment. Includes all analyses and activities necessary to quantify the effects at the operational, economic and financial levels, depending on the processes into which these are integrated (e.g. design of new constructions, evaluation of operational performances, etc.);
- operational and strategic actions. Information from previous activities is integrated into processes, informing Group decisions and business activities. Examples of activities and processes that benefit are capital allocation, e.g. for evaluating investments on existing assets or new projects; defining resilience plans, risk management and financing activities and Engineering and Business Development activities.

The following will describe the main sources of risks and opportunities identified, operational best practices for managing weather and climate phenomena, and qualitative and quantitative impact assessments conducted to date. All of the above activities are performed throughout the year through an ongoing effort to analyze, evaluate and manage the information processed. As TCFD states, the process of disclosing risks and opportunities related to climate change will be gradual and incremental from year to year.

Identification, assessment and management of risks and opportunities related to physical phenomena

Chronic physical risks: the main impacts of chronic physical changes can produce similar effects on the following variables:

- **electricity demand**: variation in the average temperature level with a potential increase or reduction in electricity demand;
- **thermal generation**: variation in the level and average temperatures of the oceans and rivers, with effects on thermal generation;
- hydroelectric generation: variation in the average level of rainfall and snowfall and temperatures with a potential increase and/or reduction in hydroelectric generation;
- solar generation: variation in the average level of solar

radiation, temperature and rainfall with a potential increase or reduction in solar generation;

• **wind generation**: variation in the average wind level with a potential increase or reduction in wind generation.

The Group will work to estimate the relationships between changes in physical variables and the change in the potential output of individual plants in the different categories of generation technology.

As part of the assessment of the effects of long-term climate change, chronic events relevant to each technology were identified and analyses of their impacts on manufacturability were initiated.

			F	Priority		
				High	Low	Not material
— Event — (Rain/ ≡	S Wind	Sunshine		Air temperature	────────────────────────────────────
Thermal				•	•	•
Solar					•	•
➡ Wind	•	•	•	•	•	•
၂၂ Hydro	•		•	•	•	•
Storage	•		•	•	•	•
Geothermal	•		•		•	•
Infrastructure and Networks			Under as	sessment		
Enel X					•	

The initial scenario analysis has shown that chronic structural changes in the recent trends of physical variables will begin to occur in a considerable manner starting from 2030. However, in order to obtain an indicative estimate of the potential impacts, and include the possibility of the early onset of chronic effects, it is possible to test sensitivity of the Industrial Plan to the factors potentially influenced by the physical scenario, regardless of any direct relationship with climate variables. Of course, such stress testing has an extremely low probability of occurrence based on historical events and geographical diversification. The variables examined were: electricity demand (+/- 1% per year), whose variations can potentially impact the generation and retail businesses. It was stress tested for all countries in which the Group operates; the output potential of renewables plants was also stressed (+/- 10% over a single year). Variations in this variable can potentially impact the generation business. It was stressed separately at the individual technology level around the globe. The data reported show the effect on a single year for a single generation technology and include both the volume and price effects.

			Time horizo Short (withir Medium (un Long (2030-	n Do n 3 years) til 2030) -2050)	ownside scenario c	current policies	- υρ	oside scenari	io curren	t policies	
	Risk &						Quantification		Quan	tification -	- range
Scenario phenomena	opportunity category	Description	Time horizon	Impact	GBL affected	Scope	- Type of impact	Upside/ Downside	<€100 mn	€100- 300 mn	>€300 mn
Chronic physical	Market	Risk/ opportunity:		Electricity demand is also influenced by temperature, the fluctuations of which can have an impact on the business. Although structural changes should not occur in the short-medium	Enel Green Power and Thermal Generation and Infrastructure and Networks			+1%	•		
		increased or decreased power demand.	a or and Short the sensitivity of the Group's performance to potential temperature changes, sensit analyses are conducted with respect to char in electricity demand of +/- of the Group to	the sensitivity of the Group's performance to potential temperature changes, sensitivity analyses are conducted with respect to changes in electricity demand of +/- 1% of the Group total.	sitivity sitivity anges -1% total.	Group	EBITDA/year	-1% 🔻	•		
		Renewables output is also influenced		Group Potential		+10%		•			
				fluctuations can have an impact on the business.	ir I	Hydro E Output	EBIIDA/year	-10% 🔻		•	
Chronic	Marilant	Risk/ opportunity: increased or	Object	Arthough structural changes should not occur in the short-medium term, to assess	Enel Green Power and Thermal Generation	Group Potential		+10%	•		
physical	Market	decreased renewables output	Snort	the sensitivity of the Group's performance to potential temperature	₽ M	Wind Output	EBITDA/year	-10% 🔻	•		
				changes, sensitivity analyses are conducted with respect to changes in potential output		Group Potential		+10%	•		
				of +/- 10% per year by individual technology.		Solar Output	EBIIDA/year	-10% 🔻	•		

Preliminary analysis of the impact of chronic climate change on renewable generation

Preliminary analyses were carried out to translate chronic climate change into impacts on manufacturability for the Group's main RES technologies: wind, solar and hydroelectric.

Two pilot sites were selected for each technology, based on country and region and availability of historical site data, for which a link function was calculated from the observed data to translate trends in climate variables into information on generation. This function was then applied to climate projection data to estimate the difference in potential output in 2030–2050 compared to the historical period.

We report below the results obtained from these initial analyses on the pilot sites.



Slight increase or slight decrease means a change that does not exceed +/- 5%.

Acute physical risks

With regard to acute physical phenomena (extreme events), their intensity and frequency can cause significant and unexpected physical damage to assets and generate negative externalities associated with the interruption of service. Within the scope of scenarios regarding climate change, the acute physical component continues playing an extremely important role when defining the risks to which the Group is exposed, both due to the wide geographical diversification of its asset portfolio and due to the primary importance of the renewable natural resources for the

generation of electricity.

In the various cases, the acute physical phenomena such as wind storms, floods, heat waves, severe cold, etc., demonstrate a high level of intensity yet do not have a very high occurrence frequency in the short term, but, considering the medium and long-term climatic scenarios, this will increase considerably in the future.

Hence, for the reasons described above, the Group is currently managing the risk deriving from extreme events in the short term. At the same time, it is extending its methodology also to longer time periods (until 2050) according to the identified climate change scenarios (RCP 8.5, 4.5 and 2.6).

Methodology for evaluating the risk of extreme events

In order to quantify the risk deriving from extreme events, the Group refers to a consolidated methodology for analyzing the catastrophic risk used in the insurance sector and in IPCC reports⁽⁹⁾. Through its own insurance business units and the captive insurance company Enel Insurance NV, the Group is managing the various phases connected to risks deriving from natural catastrophes: from the assessment and quantification to the corresponding coverages to minimize the impacts. The methodology applies to all extreme events that can be analyzed, such as wind storms, heat waves, tropical cyclones, floods, etc. In all of these types of natural catastrophes, however, three independent factors can be identified that are summarized below.

• The probability of the event ("Hazard"), that is, its theoretical frequency over a specific period of time: the "return time". In other words, a catastrophic event that has a return time of 250 years, for example, implies that it can be associated with a probability of 0.4% that it will occur in a year. This information, which is necessary for assessing the frequency of the event, is then associated with its geographical distribution with respect to the various areas where portfolio assets are located.

For this purpose, the Group uses "hazard maps" which associate, for the various types of natural catastrophes, each geographical points on the global map with the corresponding estimate of the frequency associated with the extreme event. This information, which is organized in geo-referenced databases, can be provided by global reinsurance companies, meteorological consultancy companies or academic institutions. how much value is lost and/or damaged upon occurrence of the catastrophic event. In more specific terms, therefore, it is possible to refer to the damage to the material assets the impact on the continuity of generation and/or distribution of electricity, and also the provision of the electric services offered to the end customer.

The Group creates and promotes specific vulnerability analyses, especially in the case of damage to its assets, related to every technology in its portfolio: solar, wind, hydroelectric power plants, transmission and distribution grids, primary and secondary substations, etc. These analyses are then, of course, focused on the extreme events that have greater impact on the various types of technology: as a result, this defines a matrix that associates the individual natural catastrophic events with the corresponding type of asset that is impacted in a considerable manner.

• **The exposure**, which is the set of economic values in the Group portfolio that can be considerably impacted by the occurrence of natural catastrophic events. Also in this case, the scopes of the analyses are specific to the various generation technologies, for the generation assets and for the services to the end customer.

The combination of the three factors described above (hazard, vulnerability and exposure) provide the fundamental element for assessing the risk deriving from extreme events. From this point of view, the Group differentiates the risk analysis with respect to the climate change scenarios, depending on the specific nature of the various associated time periods. The following table summarizes the scheme adopted for the evaluation of impacts deriving from acute physical phenomena.

Time horizon	Hazards	Vulnerability	Exposure
Short term (1-3 years)	Hazard maps based on historical data and meteorological models	Vulnerability, being related to the type of extreme event, to the specifics of the damage type and to the technical requirements of the	Group values in the short term
Long term (at 2050 and/or 2100)	Hazard maps and specific studies for different IPCC RCP climate scenarios	the technology under consideration, Vulnerability is essentially independent of time horizons	Long-term evolution of Group values

[•] The vulnerability, that, in percentage terms, indicates

Bernold, T. "Industrial Risk Management". Elsevier Science Ltd.

⁽⁹⁾ Wilson, L. "Industrial Safety and Risk Management". University of Alberta Press.

Kumamoto, H. and Henley, E. J., 1996, Probabilistic Risk Assessment And Management For Engineers And Scientists, IEEE Press, ISBN 0-7803100-47. Nasim Uddin, Alfredo H.S. Ang. (eds.), 2012, Quantitative risk assessment (QRA) for natural hazards, American Society of Civil Engineers CDRM Monograph no. 5.

UNISDR, 2011. Global Assessment Report on Disaster Risk Reduction: Revealing Risk, Redefining Development. United Nations International Strategy for Disaster Reduction. Geneva, Switzerland.

Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation - A Special Report of Working Groups I-II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA.

In the case of the vulnerability of assets within the portfolio, a table for the prioritization of the impacts of the main extreme events on the different technologies has been defined in collaboration with the Group's relevant Global Business Lines:



"Heavy/wet snow" includes icing, which is relevant for Infrastructure and Networks.

Management of risks from short-term extreme events

Over the short term (1-3 years) the Group, in addition to what was illustrated above in terms of risk assessment and quantification, will implement actions targeted toward reducing the impacts on business due to extreme catastrophic events. It is possible to distinguish two main types of actions: defining an effective insurance coverage and the various activities related to preventing damage that could result from extreme events.

The main components of these actions are described below and, in the case of activities related to preventing and mitigating the damage, specific reference is made to the Group's Generation and Infrastructure and Networks Global Business Lines.

Impacts of acute physical events on the Group

The Enel Group has a well-diversified portfolio in terms of technologies, country and regional distribution and asset size. Consequently, the exposure of the portfolio to natural risks is also diversified. The Group implements various risk mitigation measures which, as will be described below, include both insurance coverage and other managerial and operational actions aimed at further reducing the Company's risk profile.

Indeed, empirical evidence shows negligible repercussions of such risks, as demonstrated by data for the last 5 years. Considering the most relevant events, defined as those with a gross impact >10 million euros, the cumulative value of the gross impact amounts to ~270 million euros, which represents less than 0.14% of the Group's insured values as of 2022, or ~202 billion euros, most of which are recovered through insurance pay-outs.

Enel Group insurance

Every year, the Group defines global insurance programs for its business in the various countries where it operates. The two main programs, in terms of scope of coverage and volumes, are as follows:

 the Property Program for material damage that can be caused to the assets and the resulting interruption in business. Therefore, in addition to the cost for the new reconstruction of the asset (or its parts), also the economic losses due to their shutdown in terms of generation and/ or distribution of electricity are also remunerated according to the limits and conditions defined in the policies; • **the Liability Program**, which covers third party damage following the impacts that extreme events can have on the assets and on the Group's business.

Starting from an effective assessment of the risk, suitable limits and insurance conditions can be defined in the insurance policies and this also applies in the case of natural extreme events related to climate change. In fact, in this latter case, the impacts on business can be considerable but, as shown in cases that occurred in the past and in various areas around the world, the Group has shown absolute resilience thanks to the wide insurance coverage limits, which are also the result of a solid reinsurance structure, as regards the Group's captive company Enel Insurance NV.

Climate change adaptation activities in the Enel Group

The Group adopts solutions for adaptation to weather and climate events in order to manage effectively chronic and acute phenomena of interest for each activity and Business Line.

Adaptation solutions may concern both actions implemented in short-term and long-term decision making, such as the planning of investments in response to climate phenomena. Adaptation activities also include procedures, policies and best practices. For new investments, action can also be taken early in the design and construction phase to reduce the impact of climate risks by through risk and vulnerability assessments at the design stage, and to take any chronic effects into account (e.g. the inclusion of climate scenarios in long-term renewable resource estimates).

Once the weather and climate phenomena of interest have been identified, activities carried out to maximize adaptive capacity can be classified as follows:

- prevention and management of adverse events: procedures to prepare in advance for extreme events (e.g. the acquisition of short-term weather forecast data and training) and procedures to restore normal activities in the shortest possible period of time (e.g. the establishment of operational and organizational procedures to be implemented in case of critical events);
- enhancement of asset resilience: activities and interventions aimed at increasing the resilience of assets, such as the quantitative assessment of potential acute and chronic risks to define better both requirements in the design phase and actions to be taken on existing assets.

The following table shows a high-level summary that represents the type of actions that Enel implements for proper management of adverse events and to increase resilience to weather phenomena and their evolution due to climate change. Several activities are described in greater detail below.

Business Lines	A. Prevention and management of adverse events	B. Enhancement of asset resilience
Enel Green Power and Thermal Generation	 Existing assets 1 - Incident and critical event management 2 - Site-specific emergency management plans and procedures 3 - Specific tools for predicting imminent extreme events 	 Existing assets 1 - Guidelines for risk assessment and design of hydraulic technology 2 - "Lessons learned feedback" processes from O&M towards E&C and BD New constructions In addition to what has been done for existing assets: 1 - Climate Change Risk Assessment (CCRA) included in environmental impact documents (pilot)
Global Infrastructure and Networks	 Existing assets 1 - Strategies and guidelines on Risk Prevention, Readiness, Response, Recovery actions on distribution network 2 - Global Infrastructure and Networks guidelines for emergency and critical event management 3 - Risk prevention and preparedness measures in the event of fire on electrical installations (lines, transformers, etc.) 	Existing assets and new constructions 1 - Guidelines for defining network resilience enhancement plans (e.g. the e-distribuzione "Network Resilience Enhancement Plan")
Enel X	 Existing assets 1 - Enel X Critical Event Management 2 - e-Mobility: guidelines for maintenance and monitoring of assets (repair or replacement of charging infrastructure) 	Existing assets 1 - e-Mobility: Continuous Improvement program

Adaptation activities - generation

With regard to generation, over time the Group has carried out targeted actions on specific sites and established *ad hoc* management activities and processes.

Actions on specific sites in recent years include, for example:

- improving cooling water management systems for certain plants in order to counter the problems caused by the decline in water levels in rivers, such as the Po in Italy;
- installing fogging systems to improve the flow of inlet air and offset the reduction in power output caused by the increase in ambient temperature in CCGTs;
- installing drainage pumps, raising embankments, periodic cleaning of canals and interventions to consolidate land adjacent to plants to prevent landslides in order to mitigate flood risks;
- periodic site-specific reassessment for the hydroelectric plants for flood scenarios using numeric simulations. The processed scenarios are managed with mitigation actions and through interventions on the civil works, dams and intake systems.

The Group performs various control activities to manage the impact of weather events on electricity generation, such as:

- weather forecasting both to monitor renewable resource availability and detect extreme events, with warning systems to ensure the protection of people and assets;
- hydrological simulations, territory surveys (also using drones), monitoring of possible vulnerabilities using digital GIS systems (Geographic Information System) and satellite measurements;
- advanced monitoring of more than 100 thousand parameters (with more than 160 million historical measurements) detected on dams and hydroelectric civil works;
- real-time remote monitoring power plants;
- safe rooms in areas exposed to tornadoes and hurricanes;
- adoption of specific guidelines for carrying out hydrological and hydraulic studies that are targeted, from the first development phases, toward assessing risks inside the plant and toward areas external of the plant, with the application of the principle of hydraulic invariance during the design of the draining and mitigation works;
- check of potential climatic trends for the main project parameters in order to keep the dimensioning of the systems into account for relevant projects (for example, assessments of the temperature of a cold source to guarantee greater flexibility for cooling the new CCGT) and specific civil works (e.g. rainfall assessments for the design of drainage systems in solar plants);

 estimate of extreme wind speed using updated databases containing the registers and historical trajectories of hurricanes and tropical storms, with the resulting selection of the wind turbine technology that is best suited to the conditions that were found.

Adaptation activities - Infrastructure & Networks

In order to deal with extreme climatic events, in the Infrastructure & Networks Business Line, the Enel Group has adopted **an approach called** "4R" which, in a dedicated policy that aims to ensure an innovative strategy for the resilience of distribution networks, defines the measures to be adopted in the phase of preparation for an emergency on the network and to ensure swift restoration of services *ex post*, i.e. once the climatic events have caused damage to assets and/or disconnections. The 4R strategy is divided into four phases:

- 1. Risk Prevention: includes actions that make it possible to reduce the probability of losing grid elements due to an event and/or to minimize its effects, such as interventions able to increase the robustness of the infrastructure and maintenance operations;
- 2. Readiness: comprises all measures that aim to improve the timeliness with which potentially critical events are identified, ensuring coordination with the Civil Protection Department and local officials, as well as to prepare the necessary resources once a grid disconnection has occurred;
- **3. Response**: represents the phase for assessing the operating capacity for facing an emergency when an extreme event occurs, which is directly correlated to the ability to mobilize operating resources in the field and the possibility to perform remote controlled operations to restore service via resilient backup connections;
- **4. Recovery**: the final phase which has the goal of reconnecting the grid as soon as possible with ordinary operating conditions, in the cases in which an extreme weather event cause interruptions in service in spite of the previously adopted measures for increasing resilience.

Following this approach, the Business Line has prepared various policies **on specific actions** aimed at dealing with the various aspects and risks inherent in climate change, in particular:

• Policy for preparation and recovery during emergencies: a policy related to the last three steps of the 4R approach which indicates the guidelines and measures targeted toward improving the preparation strategies, mitigating the impact of total interruptions and, finally, restoring service to the largest number of customers possible as quickly as possible.

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- · Guidelines on the Electricity Grid Resilience Plan: a dedicated policy has the objective of identifying the extraordinary climatic events with the greatest impact on the grid, assessing specific KPIs of the "as-is" grid and improving them on the basis of proposed actions in order to finally assess their order of priority. This makes it possible to select the actions that, when implemented, minimize the impact on the grid of particularly critical extreme events in a certain area/region. The policy is therefore set in the first two phases of the 4R approach, suggesting measures regarding Risk Prevention and Readiness. In Italy, this policy translates into the Resilience Plan that e-distribuzione has prepared every year since 2017, and which represents and addendum to the Development Plan that includes ad hoc investments over a 3 year period that aim to reduce the impact of extreme events belonging to a certain critical cluster: heat waves, ice loads and wind storms (falling of tall trees). Around 520 million euros were invested in the period 2017-2020 and a further 345 million euros will also be used in the following three years, as explained in the addendum to the 2021-2023 Plan. In the face of these risks, investments have been planned such as the targeted replacement of bare conductors with insulated cable, in some cases the burying of cables, or solutions that provide re-powering routes that are not vulnerable to the above-mentioned phenomena. As in Italy, in other countries, too, both in Europe and in Latin America, similar topics are being analyzed so as to prepare a process for planning ad hoc investments;
- Policy on prevention and preparation of fire risk on electrical installations: a policy dedicated to fire risk defines an integrated approach to emergency management applied to forest fires, both in cases in which they are started by events exogenous to the networks and in cases, albeit very minor, in which they are caused by the networks themselves and, in any case, are potentially dangerous for Enel plants.
- Adoption of systems for weather forecasting, grid monitoring and assessing the impact of critical climate phenomena on the grid, preparation of operational plans and organization of special exercises.

During 2021, we further investigated **heat waves** in other countries where Enel is present, and these already provided the first results for the Italy perimeter in 2020.

This critical event is characterized by the persistence for several days of high temperatures along with the absence of precipitation and, by hindering heat dissipation of underground cable lines, it causes an abnormal increase in the risk of multiple failures on the networks, especially in urban areas and in the centers of summer tourism. In Spain, in particular, despite the increase in the frequency and intensity of the climate phenomenon, especially where the presence of buried cables is relatively low, the analyses conducted to date have not found any significant historical correlation between heat waves and failures. Finally, beginning 2022, evaluations are planned to conduct similar analyses in other countries and regions.

Inclusion of climate change effects in the evaluation of new projects

Many activities related to the evaluation and implementation of new projects can benefit from climate analyses, both general and site-specific, which the Group is beginning to integrate with those already considered in the evaluation of new projects. For example:

- Preliminary studies: in this stage, climate data can offer preliminary screening, through the analysis of specific climate phenomena, such as those shown above in the analysis of physical scenarios, and summary indicators such as the Climate Risk Index, integrated into the Open Country Risk. These data provide a preliminary measure of the most relevant phenomena in the area, among those identified as being of interest for each technology.
- Estimation of potential output: climate scenarios will be progressively integrated to allow for an assessment of how climate change will modify the availability of the renewable resource at the specific site. In the preliminary analysis of the impact of chronic climate change on renewable power generation, the approach applied for the moment on a few pilot sites and then scaled to the entire generation portfolio is described.
- Environmental impact analysis: the Group has begun to integrate the Climate Change Risk Assessment into the set of documentation produced, which contains a representation of the main physical phenomena and their expected change in the area.
- Resilient design: as described above, among the climate change adaptation activities, those aimed at devising resilient assets by design take on great importance. The Group is working to consider progressively analyses based on climate data, for example the increase in frequency and intensity of acute events. These will complement existing analyses based on historical data already in use, in order to increase the resilience of future assets, including any adaptation actions that may be required over the life of the project.

Identification, assessment and management of risks and opportunities related to transition phenomena

As regards the risks and opportunities associated with transition variables, we consider the different reference scenarios in combination with the elements that make up the risk identification process (e.g. competitive context, long-term vision of the industry, materiality analysis, technological evolution etc.) to identify the drivers of potential risks and opportunities, with priority on events with greater relevancy. The key risks and opportunities identified are:

Policy and regulation

- Emissions caps and carbon pricing: the enactment of laws and regulations that introduce more stringent emissions limits for both non-market driven and market-based mechanisms, such as a carbon tax in non-ETS (Emissions Trading System) sectors or an expansion of the ETS into other sectors.
 - Opportunities: Command&Control regulations and market-based mechanisms strengthening CO₂ price signals to foster investment in carbon-free technologies.
 - **Risks**: lack of a coordinated approach among the various actors and policy-makers involved and limited effectiveness of the policy instruments deployed, with an impact on the speed of the trend toward electrification and decarbonization in the various sectors, compared with a decisive group strategy focused on the energy transition.
- Incentives for the energy transition: development incentives and opportunities with a view to the energy transition, consequently guiding the energy system toward the use of low-emission energy resources as the mainstream approach in the energy mixes of countries, greater electrification of energy consumption, energy efficiency, flexibility of the electrical system and upgrading of infrastructure, with a positive impact on the return on investment and new business opportunities.
 - Opportunities: additional volumes and greater margins due to additional investment in the electricity industry, in line with the electrification strategy, decarbonization and the upgrading/digitalization of enabling infrastructure.
 - Risks: obstacles to achieving energy transition targets due to regulatory systems that do not effectively support the energy transition, delays in permitting processes, no upgrading of the electricity grid, etc.

- **Resilience regulation**: improvement of standards or introduction of *ad hoc* mechanisms to regulate investments in resilience in the context of the evolution of climate change.
 - Opportunities: benefits from investments that reduce service quality and continuity risks for the community.
 - Risks: in the case of especially severe extreme events with a greater-than-expected impact, there is a risk of failure to recover within an adequate timeframe and consequently a risk to Enel's reputation.
- Financial measures for the energy transition: incentives for the energy transition through appropriate policy measures and financial instruments, which should be capable of supporting an investment framework and a long-term, credible and stable positioning of policy-makers. Introduction of rules and/or public and private financial instruments (e.g. funds, mechanisms, taxonomies, benchmarks) aimed at integrating sustainability into financial markets and public finance instruments.
 - Opportunities: the creation of new markets and sustainable finance products consistent with the investment framework, activating greater public resources for decarbonization and access to financial resources in line with energy transition objectives and the related impact on costs and on finance charges; introduction of subsidised support tools (funds and calls) for the transition.
 - Risks: actions and instruments not sufficient to provide incentives consistent with an overall positioning tailored to the energy transition, uncertainty or slowdown in the introduction of new instruments and rules due to the deterioration in the public finances or differences in application in the geographic areas in which the Group operates.

Market

- **Market dynamics**: the market dynamics such as those connected with the variability of commodity prices, the increase in electricity consumption due to the energy transition and the penetration of renewables, have an impact on business drivers, with effects on margins and on generation and sales volumes.
 - Opportunities: positive effects associated with the growth in electricity demand and the greater room for renewables and all sources of flexibility.

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 Risks: exposure of "merchant" technologies to the volatility of market prices.

Technology

- Technology penetration to support the transition: gradual penetration of new technologies such as storage, demand response and green hydrogen; digital lever for transforming operating models and "platform" business models.
 - Opportunities: investments in the development of technology solutions, as well as positive impacts from increased electricity demand and increased room for renewables from green hydrogen generation.
 - Risks: slowdowns and interruptions to the raw materials supply chain, including metals for batteries (such as lithium, nickel and cobalt) and semiconductors, could lead to delays in procurement and/or increased costs, such as to slow down the penetration of renewables, storage and electric vehicles.

Products and services

- Electrification of residential consumption: with the gradual electrification of end uses, the penetration of products with lower costs and a smaller impact in terms of residential emissions will expand (for example, the use of heat pumps for heating and cooling).
 - Opportunities: increase in electrical consumption in the context of reducing energy consumption, thanks to the improved efficiency of the electric carrier.
 - **Risks**: additional competition in this market segment.
- **Electric mobility**: use of more efficient and effective modes of transportation from the point of view of climate change, with a special focus on the development of electric mobility and charging infrastructure; electrification of large-scale industrial consumers.
 - Opportunities: positive effects of the increase in electricity demand and greater margins connected with the penetration of electric transportation and the relative beyond commodity services.
 - **Risks**: additional competition in this market segment.

Unlike chronic climate impacts, **developments in the tran**sition scenario could have impacts in the short and medium-long term (by 2030) as well.

To quantify the risks and opportunities deriving from the energy transition in the long term, two transition scenarios, described in the paragraph "Climate scenarios". The effects of Slow Transition and Best Place scenarios have therefore been identified on the variables that can have the greatest impact on the business, in particular electricity demand, influenced by the dynamics of electrification of consumption, and therefore of penetration of electrical technologies and the electricity generation mix.

Enel's reference scenario - the Paris scenario - entails a growing ambition in terms of decarbonization and energy efficiency, supported by greater electrification of final energy consumption and the development of renewable capacity. The dynamics related to the energy transition will bring increasing opportunities to the Group. In particular, in the retail electricity market, the progressive electrification of final consumption - especially for transport and the residential sector - will lead to a considerable increase in electrical consumption to the detriment of other, more high-emissions energy carriers. Similarly, the gradual increase in the proportion of renewable energy in the energy mix is expected to lead to a reduction in the wholesale price of electricity in the medium to long term. However, this impact is limited, given that the market design based on the system marginal price is unchanged in the medium term. Possible alternative market structures could induce different effects.

In reference to the economic impacts that may result from the change in the transition scenarios, the Group has performed some analyses regarding impacts in terms of EBIT-DA that the Slow Transition and Best Place scenarios would bring to the 2030 results compared to the baseline Paris scenario.

With reference to the electrification of consumption, the Slow Transition scenario encompasses lower penetration rates of the most efficient electric technologies, in particular electric cars and heat pumps, causing a decrease in electricity demand compared to the Paris scenario, which is estimated to cause limited impacts on the retail commodity business & beyond. At the same time, lower electricity demand results in less development space for renewable capacity, with impacts on the generation business.

With reference to the Best Place scenario, a more rapid reduction in the cost of green hydrogen generation technologies is assumed. This results in a higher penetration of this energy carrier, at the expense of blue and gray hydrogen, with a consequent additional effect on domestic electricity demand and renewable capacity installations compared to the Paris scenario.

For the different countries and regions, all scenarios, but to a greater extent the Paris and Best Place scenarios, will involve a considerable increase in the complexities that will have to be managed by the grids. A significant increase is expected in fact in distributed generation and in other resources, such as storage systems, greater penetration of electric mobility with the relative charging infrastructures, as well as the increasing rate of electrification of consumption and the introduction of new actors with new methods of consumption. This context will involve a decentralization of the extraction/feed-in points, an increase in electric demand and the average requested power, a considerable variation in energy flows, which will require dynamic and flexible grid management. The Group therefore expects that in this scenario incremental investments will be necessary to guarantee the connections and suitable levels of quality and resilience, by promoting the adoption of innovative operating models. These investments must be accompanied by coherent policy and regulation scenarios to guarantee suitable economic returns for the Infrastructure and Networks Business Line.

						Time horizon Short (within 3 yea Medium (until 2030	rs) D)	Upside	Dov	vnside 🛑	
						Long (2030-2050)					
Risk & opportunity category	Time horizon	Scope of analysis	GBL affected	Geographic scope	Description of impact	Quantification - Type of impact		Quan <€100	tification · €100- 300 mn	- range >€300	
Policy & Regulation	Short/ Medium	For any given Paris scenario, the Group has assessed the impact on performance of actions to modify the price of CO_2 .	Enel Green Power and Thermal Generation	Italy and Iberia	Considering the potential impact of regulatory measures to incentivize energy transition, the Group assesses the exposure to changes of $+/-10\%$ in the price of CO ₂ using sensitivity analysis.	EBITDA/year	10% - Upside vs Paris -10% - Downside vs. Paris				
Market		Considering two alternative transition scenarios, the Group assessed the impact of an increase in dium the penetration of renewables on the benchmark power price and on additional capacity at 2030.	Considering two alternative transition scenarios, the Group assessed the impact of an increase in	Enel Green Power and Thermal Generation		Greater room for investment in new renewables capacity associated with a decrease in power prices due to increased penetration of renewables.	EDITDA 2030 Best Place vs. Paris				•
	Medium			Global	Less room for investment in new renewables capacity associated with an increase in power prices due to decreased penetration of renewables.	EDITDA 2030 Slow Transition vs. Paris				•	
Market/ Products & Services		Considering two alternative transition scenarios, the Group assessed the impact of trends in efficiency, the adoption of electric devices and the	Considering two alternative transition scenarios, the Group assessed the impact of trends in efficiency, the adoption of electric devices and the	vo Isition Id the ds Ie ectric e		Increase in margins due to impact of transition in terms of the electrification of energy consumption, mainly linked to forecast increases in green hydrogen.	EDITDA 2030 Best Place vs. Paris			٠	
	Medium	devices and the penetration of EVs to estimate the potential effect on commodity consumption, including the impact on gas customers due to the increase in electrification and on the demand for beyond-commodity		Global	Decrease in margins due to impact of transition in terms of slower electrification of energy consumption mainly in residential and transport sectors, and reduced penetration of new technologies.	EDITDA 2030 Slow 7 Transition vs. Paris				•	

Note: the estimated transition impacts take account of current coverage levels.

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Enel's performance in combating climate change

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The Net-Zero Project

In 2021, Enel internally launched the Net-Zero Project, with two main objectives: to improve further the **mapping of all its direct and indirect emissions**, increasing the degree of accuracy and transparency of reporting, and to **define the pathway for reducing its carbon footprint** until 2040, through the definition of intermediate targets for each source of emissions, **in line with the 1.5 °C pathway**.

As part of the Net-Zero Project, a specific working group has been activated on the **corporate fleet and buildings**, with the ultimate aim of achieving the highest possible degree of electrification and of supplying all the Group's offices and buildings with renewable electricity. Enel's fleet consists of more than 20,000 vehicles worldwide and the process will include a first phase of electrification of cars, and then involve other vehicles,



including heavy vans, excavators and cranes. To support the electrification of the fleet, Enel plans to develop a charging infrastructure composed of 20 thousand charging points, which will be added to the development plan of public charging infrastructure in the country. As regards buildings, Enel has about 1,500 buildings including offices, stores, warehouses and operations centers, which will be electrified mainly through the replacement of boilers and water heating with heat pumps. Efficiency improvement works are also planned to reduce electrification plan of the fleet and buildings with the exclusive use of renewable energy, so as to ensure associated zero emissions.

Enel's carbon footprint

In 2021, Enel's carbon footprint was 125.0 MtCO_{2eq} (up 9% compared to 2020), mainly due to the increased generation of electricity from fossil fuels, divided as follows:

- Scope 1: 51.6 Mt CO_{2eq} (up 13% compared to 2020) representing 41% of total GHG emissions (99% of which are from power generation activity. In addition, ETS-related emissions are 63% of total Scope 1 emissions (compared to 53% in 2020).
- Scope 2: 4.3 Mt CO_{2eq} (up 6% compared to 2020) which represents 4% of total GHG emissions. Furthermore, 69% of the Scope 2 emissions are related to total technical grid losses in the grid;
- Scope 3: 69.1 Mt CO_{2eq} (up 7% compared to 2020) which represents 55% of total GHG emissions. This year, Enel has also calculated and introduced in the Scope 3 perimeter the values related to gas extraction and transport emissions for both its thermoelectric generation plants

and for the market and the share of emissions related to the supply chain, disclosing it in this Sustainability Report for the three-year period 2019–2021.

The GHG inventory statements were audited by DNV GL, one of the main certification bodies world-wide, with a reasonable level of certainty for Scope 1, Scope 2 and Scope 3 emissions, as limited to the sale of natural gas, and with a limited level of certainty for the other Scope 3 emissions included within the scope of application of the inventory. The audit was conducted according to Standard ISO 4064-3 for the compliance of greenhouse gas (GHG) inventories with the WBCSD/WRI Corporate Accounting and Reporting Standard (GHG Protocol).

For more details concerning Enel's carbon footprint, please refer to the 2021 GHG inventory (accessible via the following link: https://www.enel.com/content/dam/enel-com/docu-menti/investitori/sostenibilita/ghg-inventory-2021.pdf).







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Sour	rce	Description
1	Generation from thermal sources	 Combustion of fossil fuels in generation activities (CCGT, Oil&Gas and coal thermal plants). This includes: CO₂, emissions (50.56 and 44.67 Mt in 2021 and 2020 respectively) CH₄, losses in gas-fired thermal plants (0.002 and 0.003 MtCO_{2eq} in 2021 and 2020 respectively) CH₄ (GWP=28) and N₂O, emissions (GWP=265), expressed in CO_{2eq} (0.14 and 0.11 Mt CO_{2eq} in 2021 and 2020 respectively)
2	Other (from energy generation)	 Combustion of fossil fuels in auxiliary motors as part of power generation activities (nuclear and renewable plants; 0.03 and 0.06 MtCO_{2eq} in 2021 and 2020 respectively) NF₃, losses (GWP=16,100), expressed in CO_{2eq} (0.01 and 0.01 ktCO_{2eq} in 2021 and 2020 respectively) for solar panel production SF₆, losses (GWP=23,500), expressed in CO_{2eq} (0.03 and 0.02 MtCO_{2eq} in 2021 and 2020 respectively) for power generation Use of refrigerant gases in thermoelectric and hydroelectric plants (0.012 and 0.010 MtCO_{2eq} in 2021 and 2020 respectively) Biogenic emissions from hydropower reservoirs (0.32 and 0.32 MtCO_{2eq} in 2021 and 2020 respectively) Transportation of fuel (LNG and coal) on vessels under own operational control (0.06 and 0.05 MtCO_{2eq} in 2021 and 2020 respectively)
3	Energy distribution activities	SF _e , losses (GWP=23,500), expressed in CO _{2eq} (0.11 and 0.13 MtCO _{2eq} in 2021 and 2020 respectively) for power distribution
4	Other (from distribution activities)	Combustion of fossil fuels in auxiliary motors as part of energy distribution activities (0.21 and 0.21 MtCO _{2eq} in 2021 and 2020 respectively)
5	Offices	Diesel and methane combustion for furnaces, heating and canteens in offices, including all properties of all Business Lines and Group offices (0.008 and 0.014 MtCO _{2eq} in 2021 and 2020 respectively)
6	Company fleet	Diesel and gasoline combustion in company fleet vehicles (0.07 and 0.08 MtCO _{2eq} in 2021 and 2020 respectively)
7	Electricity purchased from the grid	Consumption of electricity purchased from the grid for energy generation in power generation plants and for pumping in hydroelectric plants (1.2 and 1.1 MtCO _{2eq} in 2021 and 2020 respectively). The figures shown are calculated using the location-based approach, while the market-based approach gives a figure of 2.4 and 2.0 MtCO _{2eq} for 2021 and 2020 respectively
8	Technical losses from the grid	Energy dissipation due to distribution network losses under Enel's operational control (2.97 and 2.77 MtCO _{2eq} in 2021 and 2020 respectively). The figures shown are calculated using the location-based approach, while the market-based approach gives a figure of 4.8 and 4.7 MtCO _{2eq} for 2021 and 2020 respectively
9	Electricity purchased from the grid	Consumption of electricity purchased from the grid for distribution activities in substations (0.14 and 0.14 MtCO _{2eq} in 2021 and 2020 respectively). The figures shown are calculated using the location-based approach, while the market-based approach gives a figure of 0.2 and 0.2 MtCO _{2eq} for 2021 and 2020 respectively
10	Electricity purchased from the grid	Consumption of electricity purchased from the grid for civilian use (computers, lighting, heating) in offices and commercial offices (Market and Enel X) (0.003 and 0.004 MtCO _{2eq} in 2021 and 2020 respectively). The figures shown are calculated using the location-based approach, while the market-based approach gives a figure of 0.03 and 0.03 MtCO _{2eq} for 2021 and 2020 respectively
11	Coal (upstream)	GHG Protocol, category 3. Fuel and energy activities not included in Scope 1 and 2: fugitive emissions from coal mining used in thermoelectric and coal-fired power plants and transportation on vessels (1.24 and 1.11 MtCO _{2eq} in 2021 and 2020 respectively)
12	Gas (upstream)	GHG Protocol, category 3. Fuel and energy activities not included in Scope 1 and 2: fugitive emissions from the extraction and transport of gas used in thermoelectric plants and sold on the retail market (10.00 and 9.13 MtCO _{2eq} in 2021 and 2020 respectively)
13	Diesel & fuel oil (upstream)	GHG Protocol, category 3. Transportation and distribution of diesel and fuel oil (0.005 and 0.007 MtCO _{2eq} in 2021 and 2020 respectively)
14	Transportation of other raw materials and waste	GHG Protocol, category 4. Transportation and distribution upstream of energy generation: road transportation of fuels, raw materials and waste (0.004 and 0.004 MtCO _{2eq} in 2021 and 2020 respectively)
15	Supply chain emissions	GHG Protocol, category 1. Purchase of goods and services: supply chain emissions (11.69 and 9.53 MtCO _{2eq} in 2021 and 2020 respectively)
16	Sale of electricity	GHG Protocol, category 3. Fuel and energy activities not included in Scope 1 and 2: emissions for the generation of electricity sold to and used by end customers (retail market, 23.96 and 23.19 MtCO _{2eq} in 2021 and 2020 respectively)
17	Sale of gas	GHG Protocol, category 11. Use of goods sold: emissions from the use of gas sold to end customers (retail market, 22.25 and 21.95 MtCO _{2eq} in 2021 and 2020 respectively)

The roadmap and the targets to reduce greenhouse gas emissions

In 2021, Enel further accelerated its decarbonization roadmap, bringing forward its Net-Zero target by 10 years, from 2050 to 2040. New targets have been set for emissions from electricity and gas sales, and the target of reducing Scope 1 emissions by 2030 compared to 2017 has been confirmed. All of these targets meet the 1.5 °C pathway established by the SBTi for the electric utilities sector.





The Net-Zero Commitment

Enel is committed to fixing a long-term objective for reaching Net-Zero emissions along the value chain by 2040 (bringing forward the previous 2050 target), including both direct emissions (Scope 1) and indirect emissions (Scope 2 and 3), together with scientific goals in all pertinent areas and in line with the criteria and recommendations of the Science Based Targets initiative (SBTi).

	GHG goal	Area	Climatic scenario	Main drivers and actions for reaching the goal
	140 gCO _{2eq} /kWh in 2024	100% of Scope 1 GHG emissions ⁽¹⁾	1.5 °C ⁽²⁾	 Gradually phase-out coal-fired capacity during 2022-2024 (percentage weight of coal-fired capacity on consolidated capacity from 7% in 2021 to approximately 4% in 2024) Invest 17.3 billion euros to accelerate the development of renewable energy by installing 17 GW of new renewable capacity during 2022-2024 to reach 67 GW of renewable capacity by 2024
Short term (2024)	21.3 MtCO _{2eq} in 2024	100% of Scope 3 emissions from the sale of natural gas in the end-user market	1.5 °C ⁽²⁾	 Promote the customer passage from gas to electricity (especially residential customers) Optimize the customer's gas portfolio (especially industrial customers)
	≤ 130 gCO _{2eq} / kWh in 2024	100% of Scope 1 and Scope 3 emissions from electricity generation and end-market electricity sales	1.5 °C ⁽²⁾	 Increase the share of renewable energy sold to customers by increasing the Group's renewable generation

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	GHG goal	Area	Climatic scenario	Main drivers and actions for reaching the goal
Medium-long term (2030)	82 gCO _{2eq} /kWh in 2030 (80% reduction compared to baseline year 2017)	100% of Scope 1 GHG emissions ⁽¹⁾	1.5 °C, verified by SBTi	 Exit from coal-fired generation Invest 65 billion euros to accelerate the development of renewable energy by installing 75 GW of renewable capacity during 2021-2030 to reach 120 GW of consolidated renewable capacity by 2030 (3 times the installed renewable capacity in baseline year 2017).
	11.4 MtCO _{2eq} to 2030 (55% reduction compared to baseline year 2017)	100% of Scope 3 emissions from the sale of natural gas in the end-user market	€ 1.5 °C	 Update previous target, corresponding to a 46% reduction from previous 2030 goal Promote the customer's passage from gas to electricity (especially residential customers) Optimize the customer's gas portfolio (especially industrial customers)
	≤ 73 gCO _{2eq} /kWh in 2030 (80% reduction compared to baseline year 2017)	100% of Scope 1 and Scope 3 emissions from electricity generation and end-market electricity sales	1.5 °C ⁽³⁾	 Increase the share of renewable energy sold to customers by increasing the Group's renewable generation
	0 gCO _{2eq} /kWh in 2040	100% of Scope 1 GHG emissions from power generation ⁽¹⁾⁽⁵⁾	1.5 °C ⁽²⁾	 Exit gradually from the thermal capacity and achieve a 100% renewable energy mix No use of carbon removal technologies
	0 MtCO _{2eq} by 2040	100% of Scope 3 emissions from the sale of natural gas in the end-user market	€ 1.5 °C ⁽³⁾	 Exit from the business of gas sales to end customers, through the promotion of electrification of consumption No use of carbon removal technologies
Long term (2040) ⁽⁴⁾	0 gCO _{2eq} /kWh by 2040	100% of Scope 1 and Scope 3 emissions from electricity generation and end-market electricity sales	€ 1.5 °C ⁽³⁾	 Aim to achieve 100% renewable electricity sales to end customers by 2040 No use of carbon removal technologies
	Net-Zero emissions by 2040	All remaining emissions (Scope 1+2+3)	€ 1.5 °C(3)	Possible use of carbon removal technologies

- (1) Even if Enel constantly monitors Scope 2 emissions and is actively committed to their reduction, the Company has not set a specific reduction target, as they represent less than 4% of total Scope 1 and Scope 2 emissions in 2017 (baseline year of the target certified by SBTi). Therefore, they are considered marginal and fall within the criteria of exclusion according to the SBTi methodology, which fixes a margin of 5% of total Scope 1 and Scope 2 emissions.
- (2) The target could not be officially validated by SBTi because "the targets must cover at least 5 years and maximum 15 years from the date in which the target is presented to SBTi for official validation". However, they satisfy the 1.5 °C pathway defined by SBTi for the electric services sector (Sector Decarbonization Approach, SDA).
- (3) It is expected to request SBTi validation of the target in June 2022 and, in any case, depending on the timing agreed by SBTi.
- (4) In compliance with the Group's Net-Zero commitment, which includes both direct and indirect emissions, timely targets will also be considered on the additional Scope 2 and Scope 3 emission components in line with the "Net-Zero Standard" published by SBTi in October 2021.
- (5) Direct emissions related to power generation account for 99% of total Scope 1 GHG emissions.

$\textbf{Scope 1 emissions^{(1)}} (gCO_{_{2eq}}/kWh)$



(1) Includes all direct emissions (GHG Scope 1), 99% of which are due solely to energy generation.



Scope 1 and 3 emissions from electricity generation and sales (gCO $_{\rm 2ec}/\rm kWh)$







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Financial, operational and environmental metrics

The main metrics and financial goals regarding the risks and opportunities connected to climate change, as well as the operational metrics along the entire value chain and the environmental ones, are reported below.

Financial metrics

Financial metric	UM	2021	2020	2021-2020	%
Ordinary EBITDA for low-carbon products, services	bil euros	17.3	15.7	1.6	10.4
and technologies ⁽¹⁾	% of tot EBITDA	90	87	3	-
Capex for low-carbon products, services and	bil euros	12.3	9.6	2.7	28.5
technologies ⁽¹⁾	% of tot Capex	94	94	-	-
	bil euros	1.9	1.6	0.3	16.2
Revenues from coal plants	% of tot Revenues	2.2	2.5	-0.3	-
Devenues from thermal constant	bil euros	13.5	7.5	6.0	79.6
Revenues from mermal generation	% of tot Revenues	15.3	11.4	3.9	-
Devenues from pueles: plants	bil euros	1.4	1.4	-	3.2
Revenues from nuclear plants	% of tot Revenues	1.6	2.1	-0.5	-
Debt ratio with sustainability criteria ⁽²⁾	%	55	33	22	-
CO ₂ reference price	euros	53.2	24.7	28.5	115.4

 The "low-carbon products, services and technologies" category considers the Enel Green Power and Thermal Generation (excluding conventional generation), Infrastructure and Networks, Enel X and Market Business Lines (excluding the sale of gas).

(2) The value was calculated considering the impact of the financial instruments, which include sustainability criteria for the entire gross debt.

In 2021, Enel's ordinary EBITDA associated with low-carbon technologies, services and solutions was 17.3 billion euros, up 1.6% from 2020. The Capex dedicated to low-carbon emission technologies, services and solutions has increased as compared to 2019, reaching 12.3 billion euros 94% of total Capex.

The percentage incidence of revenues from coal plants is down, following the Company's strategic decisions that

have inspired a sustainable business model that pursues, among others, the objectives of fighting climate change and decarbonization. Specifically, in 2021, revenues related to coal-fired plants were 2.2% of total Group revenues, down from 2.5% in 2020.

Enel's strategy of promoting a sustainable financial model has contributed to reaching 55% of debt related to the sustainability objectives.

Operational metrics

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Operational metric	UM	2021	2020	2021-2020	%
Net installed maximum capacity ⁽¹⁾	GW	87.1	84.0	3,1	3.7
- of which renewables	%	57.5	53.6	3.9	-
- of which thermoelectric	%	38.7	42.4	-3.7	-
- of which nuclear	%	3.8	4.0	-0.2	-
Net generation ⁽²⁾	TWh	222.6	207.1	15.5	7.5
- of which renewables	%	48.9	50.9	-2.0	_
- of which thermoelectric	%	39.6	36.6	3.0	-
- of which nuclear	%	11.5	12.5	-1.0	-
Additional indicators					
Average thermoelectric park efficiency (%) ^[3]	%	44.4	44.2	0.2	-
Total direct fuel consumption	Mtep	26.3	23.9	2.4	10
Digitalization					
End users with active smart meters ⁽⁴⁾	no.	44,968,974	44,293,483	675,491	1.5
Smart meters (coverage)	%	60	60	-	-
Electrification, energy efficiency and digitalization					
Charging points for electric mobility ⁽⁵⁾	,000	157	105	52	49.6
Electric buses	,000	3	1	2	216.3
Smart public lighting	mil	2.8	2.8	-	-
New services					
Demand response capacity	MW	7,713	6,038	1,675	27.7
Storage capacity	MW	375	123	252	204.9
	Operational metric Net installed maximum capacity ⁽¹⁾ - of which renewables - of which thermoelectric - of which nuclear Net generation ⁽²⁾ - of which renewables - of which nuclear Additional indicators Average thermoelectric park efficiency (%) ⁽³⁾ Total direct fuel consumption Digitalization End users with active smart meters ⁽⁴⁾ Smart meters (coverage) Electrification, energy efficiency and digitalization Charging points for electric mobility ⁽⁶⁾ Electric buses Smart public lighting New services Demand response capacity Storage capacity	Operational metricUMNet installed maximum capacity ⁽¹⁾ GW- of which renewables%- of which thermoelectric%- of which nuclear%- of which nuclear%- of which renewables%- of which renewables%- of which thermoelectric%- of which nuclear%- of which	Operational metricUM2021Net installed maximum capacity(1)GW87.1- of which renewables%57.5- of which thermoelectric%38.7- of which nuclear%3.8Net generation ¹²¹ TWh222.6- of which renewables%48.9- of which renewables%48.9- of which renewables%39.6- of which nuclear%39.6- of which nuclear%%<	Operational metricUM20212020Net installed maximum capacity ^{III} GW871840- of which renewables%575536- of which thermoelectric%387424- of which nuclear%383400Net generation ^{erg} TW22262071- of which nuclear%48.950.9- of which renewables%48.950.9- of which renewables%48.950.9- of which thermoelectric%39.636.6- of which nuclear%11.512.5Additional indicators31.623.9Poital direct fuel consumptionMtep26.323.9PigitalizationMtep26.360Electrification, energy efficiency and digitalization44.968.97444.293.483Charging points for electric mobility ⁽ⁿ⁾ .000157105Electric buses.0003.1Smart public lighting.000157105Electric buses.0003.1Permand response capacityMW77156.038Storage capacityMW375123	Operational metric UM 2021 2020 2021-2020 Net installed maximum capacity ^{III} GW 871 840 3.1 - of which renewables % 575 5.36 3.9 - of which thermoelectric % 3.87 4.24 -3.7 - of which thermoelectric % 3.83 4.00 -0.2 Net generation ⁶⁹ TWh 2226 2071 1.55 - of which renewables % 48.9 50.9 -2.0 - of which renewables % 48.9 50.9 -2.0 - of which nuclear % 3.96 3.00 -2.0 - of which nuclear % 3.95 3.01 -2.0 Additional indicators 3.93 2.4 -0.2 Pigitalization

(1) Does not include managed capacity of 3.3 GW in 2021 and 3.6 GW in 2020.

(2) Does not include generation from managed capacity of 9.6 TWh in 2021 and 9.9 TWh in 2020.

(3) The values do not include consumption and generation for the cogeneration related to the Russian thermoelectric park. The average efficiency value is calculated based on the plants in the park and weighed based on generation values.

(4) Of which second-generation smart meters 23.5 million in 2021 and 18.2 million in 2020.

(5) The 2020 figures include a more specific determination thereof.

The **generation of electricity** in 2021 increased by 15.5 TWh (+7.5%) compared to the value recorded in 2020. Specifically, the increase was due to higher generation from thermoelectric sources (+12.4 TWh), primarily from natural gas (+8.4 TWh), and higher generation from renewable sources (+3.5 TWh).

The electricity generated by Enel in 2021 from zero-emission sources amounted to over 60% of total consolidated generation (in 2020 it was over 63%), while it was 62% when including generation from capacity managed according to the Stewardship model (9.6 TWh in 2021).

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Net electricity generation by source (2021)



In order to contribute to the decarbonization of its energy mix, in 2021 Enel **increased its installed renewable capacity by 5.2 GW, while reducing its coal-fired capacity by 2.0 GW**. As a result, consolidated installed capacity from zero emissions sources was approximately 61% (58% considering only renewable sources) of Enel's total consolidated installed capacity in 2021, whereas it was greater than 63% (59% considering only renewable sources) when including capacity managed according to the Stewardship model (3.3 GW in 2021).



Net installed maximum capacity (2021)

In 2021, Enel maintained a key role in the development of new solutions to accelerate the energy transition process through the development of 252 MW of storage capacity, corresponding to a growth of about 205% compared to 2020, and increasing the current 7.7 GW of demand response by 27.7% compared to 2020.

The digitalization of the electricity grid, which has been identified as a key enabler able to positively influence climate change through levers such as the integration of more renewable energy or an increase in energy efficiency, continued being a priority for Enel also in 2021. In particular, in 2021 the total number of end users with active smart meters grew 1.5% as compared to the previous year, reaching 45 million in 2021.

Enel has also continued defining solutions for promoting the decarbonization of other sectors, such as transport. The Company is in fact committed to developing electrical mobility initiatives and promoting sustainable transport, reaching more than 157 thousand installed charging points at the end of 2021, an approximately 50% increase in comparison to 2020.

Environmental metrics

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The following table presents the environmental metrics related to climate change, in addition to the greenhouse

gas emissions previously described in the dedicated paragraph of this chapter.

Environmental metric	UM	2021	2020	2021-2020	%
Specific water withdrawal for total generation ⁽¹⁾	l/kWh _{eq}	0.21	0.20	0.01	5
Withdrawal of water in water stressed areas ⁽¹⁾⁽²⁾	%	27	23	4	_
Generation with water withdrawal in water stressed areas ⁽²⁾	%	14	14	_	_

(1) Based on the classification provided by the WRI "Aqueduct Water Risk Atlas", the water stressed areas are those where the ratio between the total annual withdrawal of surface water or groundwater for different uses (civil, industrial, agricultural and livestock) and the total annual renewable water supply available ("base water stress", understood, therefore, as the level of competition between all users) is high (40-80%) or extremely high (>80%). By way of greater environmental protection, we have also considered as located in water stressed areas those plants falling in zones classified by the WRI as "arid".

(2) Values for 2020 data have been recalculated following an expansion of the scope of facilities in water stressed areas.



Targets

The table below shows the main operational objectives included in the 2022-2024 Strategic Plan and the 2030 vision, which reflect Enel's role in combating climate change along the entire electricity value chain, in addition to the GHG emission reduction targets described in the previous section.

Segment of the electricity value chain	Description of the goal	UM	2024	2030
GENERATION	Net installed maximum capacity $^{\!\!\!\!\!^{(1)}}$	GW	102	~160
	- of which renewables	%	67	>80
	- of which thermoelectric	%	30	-
	- of which nuclear	%	3	-
	Net generation ⁽²⁾	TWh	257	~340 ⁽³⁾
	- of which renewables	%	65	>85
	- of which thermoelectric	%	25	-
	- of which nuclear	%	10	-
	Digitalization			
	Smart meter	mil	48.4	~81
	Smart meters (coverage)	%	63	100
RETAIL	Electrification, energy efficiency and digitalization			
	Charging points for electric mobility	mil	1.1	>5
	Electric buses	,000	12.6	100
	Smart public lighting	mil	3.6	-
	New services			
	Demand response capacity	GW	13	>20
	Storage capacity	MW	476	>600

(1) Does not include managed capacity of 7.6 GW in 2024. Includes BESS capacity.

(2) Does not include generation from managed capacity of 21.2 TWh in 2024.
 (3) Does not include the effect of M&A transactions.

Furthermore, the following assumptions were defined:

- EBITDA incidence for low-carbon products, services and technologies of approximately 92% in 2024;
- Capex incidence for low-carbon products, services and technologies on the total, approximately 95% in 2022-2024:
- incidence of sustainable financial mechanisms of approximately 55% in 2024 and above 70% in 2030.

Finally, Enel is committed to improving its performance in other environmental aspects concerning climate change, fixing increasingly ambitious goals, such as the 65% reduction in water requirements for the electricity generation process by 2030. For further details on Enel's environmental performance, please refer to the chapter "Towards a nature-based model" in this document.

Enel's commitment to a just and inclusive transition and the action plan

The achievement of the goals set by the 2015 Paris Agreement has led governments around the world to intensify their efforts to fight climate change and adopt strategies to transform energy consumption and power generation patterns. The entire world is committed to an ambitious path of decarbonizing the economy, and all of the most recently published scenarios are unanimous in saying that achieving ambitious climate goals requires accelerating the electrification of energy consumption, along with massive use of energy generated from zero-emission sources. The change in customer consumption habits, in terms of greater awareness and efficiency in energy use and in terms of adopting technologies powered by electricity will be a key element along this path. In order to take full advantage of the opportunities offered by this transformation and find the balance between the right to a safe, clean, healthy and sustainable environment and respect for the rights of the stakeholders involved, forward-looking policies will be required that take into account the fact that the transition to a decarbonized economy can be an important accelerator of growth and technological advancement in the energy sector, with positive environmental, social and economic impacts. If, on the one hand, the transition entails a reduction of jobs in some generation sectors, on the other it will open up new opportunities for employment and retraining of people and local communities. This will only be possible by taking into account the needs and priorities of all stakeholders involved, so that the transition is just and inclusive and pays particular attention to the most exposed social groups, of which communities that have based their economy on coal mining are an example.

In this context, Enel fully supports the principles of a just transition, so that

In addition, Enel plays an active role in the

no one is left behind even in the short term, and recognizes the relevance for its business of the social impacts arising from its climate strategy, aimed at the progressive reduction of greenhouse gas emissions, in line with the Paris Agreement. Therefore, Enel's action in this sense is not only related to the energy transition but reflects a broader commitment, which is part of the Group's approach to respect human rights along the entire value chain, as also defined by the Human Rights Policy.

In 2019, Enel signed the UNSG Summit Pledge Letter in which the United Nations

asked companies around the world to commit to a just transition and the creation of decent green jobs. The commitments in the letter define the conditions necessary for the transformation: the transition must be just, jobs must be sustainable and decent, greenhouse gas emissions must be zeroed out, poverty must be eliminated, and communities must thrive and be resilient. In fact, companies committed to the decarbonisation process will be the first to combine good growth in economic results with better social inclusion and will be the first to seize the opportunities offered by the new economic model aimed at a zeroemission world through the creation of new jobs and employee training. By signing this letter, the Group has committed in particular to.

- promoting negotiations with workers and union representatives, in compliance with workers' rights, encouraging social protection (including pensions and healthcare) and salary guarantees, as established by the International Labour Organization (ILO);
- collaborating with suppliers who respect these standards, at the same time contributing toward the social-economic development of the local communities most exposed to the passage from fossil fuels to renewables.

Sectoral Social Dialog Committees, in which



it participates as a representative of the Italian employers' association (Elettricità Futura) and of which it held the chair in 2020, which will also hold for 2022. In this context, in November 2021, the European social partners-Eurelectric, IndustriALL and EPSU-officially signed a **joint statement on just energy transition**, which includes concrete demands, including adequate funding and better authorization procedures for coal phase-out programs and to meet the growing demand for electricity, as well as consistent social policies that ensure that no one is left behind, in line with the principles of the **ILO's Just Transition Guidelines**. Enel also maintains a high-profile social dialog through the

European Works Council, a worker representation body introduced by European Directive 94/45/EC and implemented in Enel most recently with the union agreement of July 13, 2016 for the purpose of transnational "information and consultation" of workers in European-sized companies and groups.

In this regard, a plenary meeting was held on March 15 and 16, 2022, attended by several representatives of Enel's management, sharing the Group's positioning on the issue and the various initiatives under way in the Company to ensure a just energy transition and a workforce increasingly prepared for change.

Stakeholder engagement

Enel promotes a broad engagement of stakeholders, internal and external, with a fully Open Power approach, in order to increase their awareness and develop a constructive dialog that can provide a valuable contribution to the fair transition. The most relevant actions carried out in 2021 include:

- materiality analysis: among the topics addressed during the identification of the main priorities for stakeholders in sustainability planning there are: climate change, engaging local communities, management, development and motivation of people and a sustainable supply chain, in terms of priorities for stakeholders and performance of the Company in the different countries where it operates;
- **social media**: Enel continued to raise awareness of climate change and just transition issues through social media;
- raising the awareness of local communities: with the Creating Shared Value (CSV) model, Enel is involving local communities, making them aware of issues related to climate change and explaining how renewables are an extremely effective solution, with benefits not only for the environment but also for the creation of new jobs and for social-economic development;
- raising the awareness of our people: Enel aims to achieve an ever-increasing engagement of the people who work in the Company through awareness campaigns on the topic. The Company's annual events, debates and discussions on topics related to a just transition were promoted during the Enel Digital Days 2021.



Enel's advocacy activities

The Group acts at different institutional levels to support a green, digital and just transition. Public policies can have positive impacts on workers, industries and end customers. There are four areas that Enel actively promotes, also through advocacy activities:

- safeguard industrial competitiveness, taking into account the possible risk of "carbon leakage", i.e. the risk of relocation outside national borders of generation activities, to countries that do not apply a price to emissions (so-called "carbon pricing mechanisms") or that apply a low price to emissions. The transition will create new jobs and industries while gradually eliminating others;
- safeguard employment by focusing on upskilling and reskilling. Social security measures should be in place for workers who cannot be reintegrated into the labor

Participation in just and inclusive transition initiatives

In the last two years, Enel has been a promoter, together with CSR Europe, of multi-stakeholder initiatives and negotiation on a just and inclusive transition and the future of work, which has seen a wide engagement of key stakeholders such as: the European Commission, environmental organizations and labor institutions, European think tanks, private sector and youth associations.

During 2021, the Group also contributed to various debates of the European Round Table on Climate Change and Sustainable Transition on the need for a just transition and the market;

- manage impacts on utility bills: policies, laws and regulations should avoid inequitable redistribution of costs and safeguard customers, with particular attention to low-income customers;
- **empower customers**: customers should be aware of both the costs and opportunities associated with the energy transition and can be guided to identify and implement consumption policies that aim at energy efficiency and cost optimization through a process of progressive electrification.

For climate change advocacy activities, please refer to the section of the chapter "Enel's advocacy activities for the climate".

evolution and prospects of international climate change negotiations, and participated in the working group on just transition of the WBCSD's "Business Commission to Tackle Inequality" platform, which brings together business leaders and key stakeholders with the overall objective of building a new common narrative on the role of business in tackling inequality.

For further discussion, see the chapters "Our Strategy for Sustainable Progress", "Enel People," and "The Path to Net-Zero".

The strategy towards Net-Zero and the approach and action plan for a just transition

The strategy developed in recent years has enabled the Group to set out a **vision of the future and progress centered on sustainability**, as a key and essential element to face the global challenges of the transition to a decarbonized economy. **The Group's strategy is articulated around the core concept of contributing to building a fairer and more inclusive society throughout the entire value chain, protecting the environment in which we live and creating opportunities for the future for the Company and for stakeholders, without leaving anyone behind**.

Taking into account the results of the materiality analysis and in synergy with the Strategic Plan, our **Sustainability Plan** was set out, divided into specific objectives in the short, medium and long term, to make our journey towards sustainable progress more transparent and verifiable (**see the Sustainability Plan 2022-2024**).

Just Transition plans are, therefore, developed consistently with the principles of the ILO's Just Transition Guidelines and with the Group's strategy aimed at the decarbonization of its power generation capacity, in line with the objectives of the Paris Agreement, involving, where necessary, the various stakeholders, such as employees, trade unions, local communities, suppliers, institutional stakeholders, trade associations, non-governmental organizations and investors.

The Group is also committed to managing the transition at an individual country level by activating solid periodic



negotiations with trade unions in order to put into practice the principles of a just transition with all the players most directly involved in the process, particularly in the conversion of sites and coal-fired power plants.

The Group follows the "think globally, act locally" approach, based on which the **Futur-e initiative has been developed**, which promotes an inclusive transition in the areas surrounding the power plants that are undergoing this energy transition. Futur-e is the first example in the world of requalification on a large scale of an industrial area that uses an approach based on the circular economy; a vast and unique program designed to find new uses for obsolete power plants. New, innovative and sustainable uses that reuse existing structures, infrastructures and connections, with the engagement of local stakeholders to create value for local communities through sustainable economic growth and the creation of jobs.

A strategy is being prepared for the in line regeneration of over 40 sites to be reconverted, in compliance with the following fundamental principles:

- integrating site personnel through a process of reassignment within the Group in order to avoid redundancies and any loss of know-how, also involving trade unions to make sure that the various expectations of employees are satisfied;
- promote requalification projects to write new stories of energy conversion, sustainable growth and development of innovative ideas that improve creative thought and promote business initiatives;
- collaborate with local communities through a multi-stakeholder approach for favoring the creation of shared value along the entire project, from the preliminary interviews with the stakeholders, up to the decision regarding which regualification projects to follow;
- guarantee the protection of the environment: soil remediation must be carried out according to the highest standards possible;
- maximize the reuse of divested structures, such as roads, infrastructures, connections to the high-voltage network, buildings, etc. in line with the principles of the circular economy;
- **contribute to the objectives of the Enel Group** collaborating with the other Business Lines for the completion of projects such as BESS (Battery Energy Storage System), electric mobility, digitalization or stability of the electricity grid.

The Futur-e initiative was launched in 2015 in Italy and subsequently extended to the Group's other countries, with the aim of giving new life to thermoelectric power plants that are no longer competitive on the market, totalling 13 GW. Since 2019, the project has evolved by combining the requalification of third parties in non-energy areas with the development of opportunities to replace thermoelectric plants with new hybrid and/or renewable generation, in line with the Enel Group's objective.

In a perspective of circular economy and sustainability, the development of new generation capacity has therefore started with the reuse of existing plant spaces, infrastructures and connections, as well as investing in the areas hosting plants undergoing decommissioning, actively involving the local areas and stakeholders and creating value for local communities through sustainable economic growth and job creation.

Given the new energy-industry context, and Enel's decarbonization strategy – in line with the national, European and global strategies that orient energy development toward sustainable technologies – **the Group has expanded the requalification opportunities thanks to the possibility of replacing the thermal power generation plants mainly with new renewable or hybrid power plants, integrating new business projects with complementary sustainable investments** that satisfy the needs of the communities where the facilities are located. These projects are located, in particular:

- In Italy, with energy requalification in line with the transition objectives and the Integrated National Energy and Climate Plan (INECP). With a view to circular economy and sustainability, the development of new generation capacity is achieved through the reuse of plant spaces, infrastructure and connections already in place, as well as by investing in the areas hosting the decommissioned plants, actively involving the local areas and stakeholders and creating value for local communities through sustainable economic growth and job creation;
- on the Iberian Peninsula with the progressive transition of coal-fired plants located on the peninsula, for example, Andorra in Teruel and Compostilla in León (closed in June 2020), and Carboneras in Almería (closed in December 2021);
- in Latin America, for example, with the power plants of Tarapacá and Bocamina in Chile, where Enel is proceeding with the progressive closure of coal-fired generation (Tarapacá and Bocamina I already closed, and Bocamina II scheduled for closure in May 2022), with employees, contractors, suppliers and communities integrated into the transition process. In the case of employees, a plan has been agreed to transfer people from coal-fired plants to other areas of the Company. Specifically, for the Tarapacá power plant out of a total of 50 employees it has been possible to relocate 26 people internally in thermal generation, 9 people in renewable energy (of which 2 in wind, 2 in solar, 2 in geothermal, 1 in Engineering and Construction, 1 in Business Development and 1 in technical support), 2 people in sales, 1 person in Infrastructure and Networks

and, finally, 12 people have opted for a voluntary resignation by taking advantage of the economic, training and health insurance package offered by the Group. For the Bocamina I Plant, out of a total of 28 employees, 17 were relocated internally to various areas including Engineering and Construction, Renewable Energy, Health and Safety, Environment and Quality (HSEQ); 9 people took advantage of retirement plans and the remaining 2 people decided to leave the Company. Regarding the Bocamina II Plant, in 2021 the negotiations with unions and workers continued in order to elaborate the options for people working at this plant, which will be presented during 2022, the date on which the Company has committed to providing an internal relocation plan for employees.

The Futur-e project for the coal-fired plant in Andorra, Teruel (Spain)

In line with the commitment made for a just and inclusive transition, **Enel is promoting the Futur-e initiative at the coal-fired power plant in Andorra, Teruel** (1,101 MW). The project represents an investment of more than 1,487 million euros and has the final objective of installing 1,725 MW of renewable energy, of which 1,585 MW from solar power, constructing the largest plant for this technology in Europe, and 140 MW from wind power. The project also includes a large-scale energy storage system of up to 160 MW. The Futur-e project for Andorra includes:

- creation of new jobs: by the end of 2021, 449 jobs had been created, 153 of which local (34%), specifically in the municipalities of Alcañiz, Alcorisa, Alloza, Andorra, Calanda, Utrillas, Albalate del Arzobispo, Ariño and Mas de las Matas. Since the beginning, the Company has involved trade unions to guarantee that the expectations of personnel are satisfied; therefore together with the trade unions, a decision was reached that those who are interested can be transferred to other company functions, based on existing open positions and their professional category. These agreements also include economic incentives and requalification opportunities;
- the hiring of new recruits from existing auxiliary companies for employment in the closing and decommissioning of the plant, as a top priority. In the following phase, the renewable plants will create approximately 4,000 jobs during construction, and 138 positions for 25 years in operational and maintenance areas;
- the development of training programs targeted toward local communities in the area, with more than 900 beneficiaries, in order to promote new work



opportunities. Specifically, 4 health and safety courses already finalized for 200 beneficiaries and 18 technical courses for over 700 beneficiaries are to be conducted in 2022;

• the planning of actions for promoting energy efficiency and sustainability of consumption in the towns surrounding the plant.

The project for Andorra will also include an investment of 294 million euros for the installation of a 60 MW electrolyzer that generates renewable hydrogen. This project is included in the 23 initiatives presented to the Ministry of Ecological Transition for the development of this technology in Spain. A part of the renewable capacity that will be placed in operation in Teruel could therefore be dedicated to the generation of hydrogen, which would involve the creation of 144 jobs during the construction of the electrolyzer and 65 permanent positions for operation and maintenance.

For more information and updates on the project see: **Futur-e in Teruel-Endesa** (<u>endesa.com</u>).

Respect for labor rights

(for further information see the chapter "Progress starts with people – Enel people")

As stated in the Group's Human Rights Policy, everyone who works with Enel is entitled to conditions that respect health, safety, welfare and dignity, a cap on working hours, rest periods during the day and week, and paid vacations. The remuneration of the Group's employees takes into consideration the principle of **fair pay** for work and **equal pay** between male and female labor for work of equal value, based on an objective assessment of the work to be performed. The minimum payment made to Group employees cannot be lower than the level established by the collective bargaining agreements and legislative and regulatory texts in force in the various countries, in line with the provisions of the ILO Conventions.

The transition to a Net-Zero economy will bring about a shift in sectors and jobs, and thus in the skills and competencies of the workforce. In addition to the creation of new types of jobs, e.g. climate change experts, Big Data, digital transformation and artificial intelligence specialists, the transition to a Net-Zero economy will likely result in the gradual disappearance of some types of jobs (such as technical skills in the thermoelectric sector) and changes in the content of most others. It is therefore necessary to have company programs aimed both at developing existing professional skills to improve the performance of one's current role (upskilling) and at learning new ones (reskilling).

Enel believes that professional guidance and training are important for the development of people and their skills, particularly in situations affected by the energy transition, and is committed to implementing requalification programs for workers affected by the ongoing decarbonization process. Both for plants closed during 2021 and in previous years, and for those that will be progressively affected by the path towards decarbonization in the coming years, Enel's commitment with all its employees affected, without distinction of job title, level of responsibility or gender, is to support them, including with the initial engagement of the unions, in the development of new skills and/or retraining of technical competencies, through:

- redeployment and upskilling/reskilling processes of people working in coal-fired power generation plants;
- voluntary early retirement plans;
- upskilling/reskilling programs to acquire new skills and support generational mixing and knowledge sharing.

Upskilling/reskilling programs are developed based on the timeline of the plant closure plan and redeployment

plan and are broken down into several phases:

- 1. identification of training needs and mapping of resources;
- design of a training plan to reduce the skills gap compared to the required job profile;
- execution of the training plan and monitoring of activities;
- rotation in the new position.

2021

The programs are generically structured by a portion of "traditional technical training" (classroom and online) and a portion of "on-the-job training", more targeted to the specific nature of the role. In cases in which the persons concerned already possess advanced technical knowl-edge on topics that are part of the programs (educational qualifications, training plans after joining Enel and/or previous experience), the courses are not assigned, since no skill gap is detected.

In the last two years, the pandemic has put a strain on programs already started and to be started, although online training has not negatively impacted the achievement of goals.

> • ~55% of people who left coal-fired plants in 2021 have been redeployed and have attended upskilling and reskilling programs (110 hours *per capita*)

• Coal employees redeployed:

→90% within the Enel Green Power and Thermal Generation perimeter

~10% in other Enel business areas

2022-2024

50% of people leaving coal-fired plants will be redeployed, participating in upskilling and reskilling programs.
 The remaining 50% will be offered early retirement plans

- Overall training dedicated to the total employees up to 40% reskilling and upskilling
- Reinforcement of the "internal training" approach



In December 2020 in Italy, Enel signed an agreement with trade unions to implement an upskilling and reskilling training plan, involving more than 20 thousand people. Initiatives range from digital transformation of operational and commercial staff to retraining activities involving technical-professional and cultural skills.

Customer centricity

(for further details see the chapter "The decade of electrification and customer centricity")

The next decade will be characterized by increasing interventions in favor of electrification, through which customers will gradually convert their energy consumption to electricity, with improvements in spending, efficiency, emissions and price stability: already by 2024 it is expected that in Tier 1 countries the electricity from renewable sources sold to Enel customers will grow as a result of: i) the increase in the percentage of generation from renewables on the total and ii) the increase in the share of electricity generated directly by the Group on total sales to end customers.

The aim of the Group is to be close to customers, improving and maintaining access to electricity in the most disadvantaged areas and among people on lower incomes. Indeed, to facilitate equal access to energy, in all countries in which the Group operates forms of support are available for certain segments of the population to assist them in the payment of utility bills, as well as a wide range of products with high energy performance to ensure savings in terms of both consumption and emissions. In addition, with the aim of promoting social inclusion, in Colombia Enel has developed a financial product aimed at the most vulnerable categories of the population who do not have access to credit through traditional banking channels: hence the Codensa Easy Credit credit card, aimed at Enel customers in the city of Bogotá and the department of Cundinamarca. At the end of 2021, the beneficiaries of this option exceeded 75,000, over 50% of whom were women.

Engaging local communities

(for more detailed analysis see the chapter "Progress starts with people - Local and global communities")

Enel promotes the engagement of local communities in order to gather their needs related to the transition from thermal generation to generation from renewable sources, as well as to raise their awareness on issues related to climate change, explaining to them how the development of renewables provides benefits not only for the environment but also for the creation of new jobs and for the socio-economic development of the communities involved.

The Group contributes to the achievement of various types of intervention, ranging from the expansion of infrastructure to education and training programs, from initiatives targeting social inclusion initiatives to projects supporting local cultural life. For example, several projects have been implemented, such as "Access to electricity", as well as specific initiatives dedicated to communities close to the power plants. In 2021, the overall contribution of Enel to the communities in which the Group operates was 91 million euros, of which about 5 million euros for in-kind giving activities. The model includes the development and use of quantitative KPIs, such as the number of beneficiaries, which in the period 2015-2030 is estimated to be:

- 5 million beneficiaries of quality education (SDG 4);
- 20 million beneficiaries of clean and affordable energy (SDG 7.1);
- 8 million beneficiaries of decent work and sustained, long-lasting, inclusive, and sustainable economic growth (SDG 8).

Engaging suppliers

(for more details see the chapter "Progress starts with people – Suppliers")

In order to make the supply chain increasingly resilient, Enel has launched several initiatives.

Specifically, in Italy the process of supplier growth is assisted by the Supplier Development Program. Through signing agreements with the main players, **Enel guarantees favourable conditions compared to those of the market** and a contribution to cover partially the services offered within the framework of the program, including financial instruments that can facilitate access to liquidity and managerial and technical training programs to encourage business reconversion. Particular attention is paid to initiatives to **support the reconversion and diversification of business** such as the "Sportello imprese" (business desk), which consists of periodic meetings with individual traditional power generation companies aimed at accompanying them in processes of growth and requalification towards areas in expansion, such as renewables or new services related to energy efficiency.

Furthermore, in 2021 Enel applied in Italy the social clause beyond the limits of the law (*extra legem*), allowing more than 1,900 workers to keep their jobs despite the change of contract.

With the aim of contributing to the reskilling and/or upskilling of workers with professional skills that risk becoming obsolete, to the creation of entrepreneurship and to the strengthening of Italy's productive and economic fabric, **Enel has also created the following professionalizing courses, involving its supply chain**:

- for photovoltaic panel installers, designed with the Sostenibile CNA of Viterbo, local employers' associations and the Municipality, with the aim of reskilling workers in the Civitavecchia and Montalto di Castro supply chain by training 120 technicians to be employed on worksites for the construction of solar photovoltaic plants. This is a concrete contribution to companies that, as part of the path of energy transition taking place in northern Lazio, have decided to convert to the renewables business. In 2022, the course will be repeated in Brindisi.
- for welders, designed with colleagues from the Civitavecchia plant and in partnership with the employment agency Umana Forma, Unindustria and a local company that has provided the workshop and teaching staff;
- for fiber technicians, a project aimed at 150 unemployed Abruzzo residents, identified in collaboration with the Abruzzo Regional Authority, to enable them to find employment thanks to what is now a highly sought after professional training.

In the early months of 2022, "Energie per Crescere" (Energy for Growth) was launched, a program devised in conjunction with the ELIS training body, to include about 5,500 young people onto the labour market within the next two years and create, in the various local communities, a pool of professionals available for Enel's network of supplier companies.







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