



OPEN POWER FOR A BRIGHTER FUTURE.

WE EMPOWER SUSTAINABLE PROGRESS.

NET-ZERO AMBITION



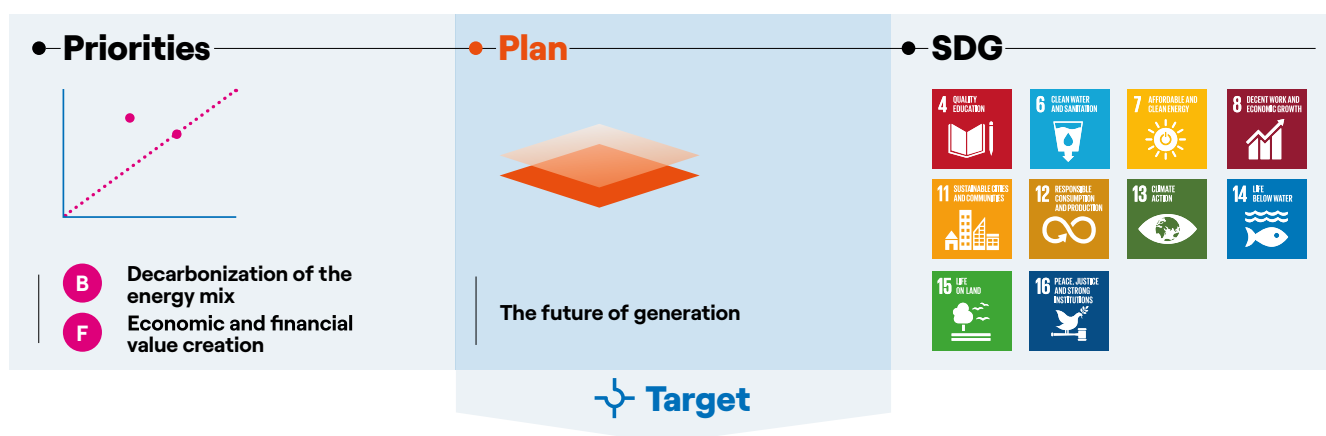





Global Compact
LEAD
2020 PARTICIPANT

**OPEN POWER
FOR A BRIGHTER
FUTURE.**



NET-ZERO AMBITION



Activities	2020-2022 targets	2020 results	Status	2021-2023 targets	Tag	SDG
Reduction of specific emissions Scope 1	-70% in 2030 compared to 2017 (125 gCO _{2eq} /kWh) ¹	-49% compared to 2017 (211 gCO _{2eq} /kWh) ¹	ON-PLAN	-80% in 2030 compared to 2017 (82 gCO _{2eq} /kWh) ²	 E	13
Development of additional renewable capacity and reduction of thermal capacity	+14.1 GW of renewable capacity ³ -6.2 GW of thermal capacity ⁴	3.1 GW of additional renewable capacity ³ -3.3 GW of thermal capacity ⁴	ON-PLAN	Approximately +96 GW additional renewable capacity ³ in 2021-2030 <20% of conventional capacity over total capacity ³	 I E	7 13
Implementation of environmental international best practices to selected coal plants	187 mil euros of environmental investments	6.5 mil euros	OFF-PLAN	Target exceeded in view of the evolution of the Group's strategy	 E	13
MBA-PhD training about resilience in the countries where the Group operates	600 people involved	238 people involved	ON-PLAN	600 people involved	E S G	11 17
Greater use of sustainable financing sources (sustainable finance instruments/total financial instruments)	43% by 2022	33%	ON-PLAN	48% by 2023 ⁵	I E	7 13

- (1) The target included in the 2020-2022 Plan and certified by the Science-Based Targets initiative (SBTi) in September 2019 only referred to CO₂ emissions from thermal generation, which account for around 99% of Scope 1 emissions, under the new target included in the 2021-2023 Plan. In 2020, the value for all Scope 1 emissions is 214 gCO_{2eq}/kWh, down 48% compared to 2017.
- (2) The 2030 Scope 1 emissions reduction target was redefined and certified by SBTi in October 2020. Following this redefinition, Scope 1 specific emissions in 2023 will be 148 gCO_{2eq}/kWh.
- (3) Includes managed capacity. The value of the additional consolidated capacity is 2.9 GW in 2020.
- (4) Includes nuclear.
- (5) The 2030 target is >70%.

Goals



New



Redefined



Outdated

I Industrial **E** Environmental **S** Social **G** Governance **T** Technological

Activities	2020–2022 targets	2020 results	Status	2021–2023 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 ⁶	+	+		48 sites involved in repurposing projects ⁷ , including: <ul style="list-style-type: none"> • 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) 	I E S T	7 13
Sustainable construction site⁸ – promoting the adoption of the sustainable construction model (sustainable construction sites/total new construction sites)	+	+		100% renewable construction sites by 2023 100% thermal generation sites by 2023	I E	4 6 7 8 12 13 14 15
Sustainable construction site⁸ – improving the adoption of the sustainable construction site model (average adoption rate per site ⁹)	+	+		100% by 2023	I E	4 6 7 8 12 13 14 15
Sustainable plant – promoting the adoption of the sustainable plant model (sustainable plants/total eligible plants ¹⁰)	+	+		100% by 2023	I E	4 6 7 8 12 13 14 15
Sustainable plant – improving the adoption of the sustainable planting model (rate of adoption of planned practices ¹¹)	+	+		66.3% in 2021 ¹²	I E	4 6 7 8 12 13 14 15

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

(7) Includes sites already decommissioned, to be decommissioned, in operation and with hybridisation currently ongoing with other technologies.

(8) The perimeter of the sustainable site model also includes sites undergoing renovation and repowering (turbine replacement, gas upgrading, etc.).

(9) The rate of adoption of sustainable construction practices is the ratio between the practices adopted and the catalogue priority practices according to the sites' technical characteristics.

(10) Eligible plants are the sites achieving a positive result in the annual assessment on all sites. Not included are plants with zero planned generation, small plants (<1 MW) with low local impact, plants for sale or being phased out, BSO plants with restrictions due to external partnerships and plants with hand-overs in the second half of 2020.

(11) The adoption rate of sustainable planting practices is the ratio of adopted practices to catalogue planned practices. Planned practices are determined following an assessment of the specific aspects of individual plants.

(12) The KPI only considers practices from the 2020 Sustainable Plant Catalogue as mapped out in the 2020 Feasibility Map.

NET-ZERO AMBITION

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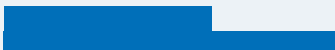
gCO_{2eq}/kWh

SPECIFIC GREENHOUSE GAS EMISSIONS (SCOPE 1)

80

%

REDUCTION OF DIRECT GREENHOUSE GAS EMISSIONS



by 2030 – as compared to 2017

56

%

RENEWABLE NET

efficient power

87

%

EBITDA

for low-carbon products, services and technologies

Enel is committed to developing a **business model in line with the goals of the Paris Agreement (COP 21)** to limit the average increase in global temperature to less than 2 °C above pre-industrial levels (1850-1900) and to continue to limit this increase to 1,5 °C.

For this reason, Enel **has set itself the objective of reaching the decarbonization of its energy mix by 2050**, as announced publicly in 2015 when the United Nations launched its Sustainable Development Goals (SDGs), with particular reference to SDG 13 “Climate action”.

Furthermore, Enel, as a signatory to the Business Ambition for 1,5 °C campaign promoted by the United Nations and other institutions, is committed to fixing a long-term objective for **reaching net zero emissions along the value chain by 2050**, together with intermediate targets in all the pertinent areas and in line with the criteria and recommendations of the Science Based Targets initiative (SBTi). As a result, in October 2020 Enel announced a new **objective of reducing its direct emissions of greenhouse gases per kWh_{eq} 80% by 2030**, in comparison to the year of reference 2017, certified by SBTi and consistent with the purpose of limiting global warming to 1,5 °C. This new commitment requires that by 2030, the Group's direct emissions are equal to 82 gCO_{2eq}/kWh compared to 125 gCO_{2eq}/kWh corresponding to the previous objective of a 70% reduction that was announced in 2019.

Particular attention 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, Enel periodically reports on its related activities in line with the international standards of the **GRI (Global Reporting Initiative)** and the **Sustainability Accounting Standards Board (SASB)**, and is 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. The Group has also integrated the “Guidelines on reporting climate-related information” published by the European Commission in June 2019.

A net-zero economy requires a new way of doing business and finance, a combination that must fully integrate the concept of sustainability and the shared value creation.

Why is it important for our stakeholders?

To accelerate the energy transition means rethinking the way in which we live and progress, for both our and future generations benefit.



Alberto De Paoli

Administration, Finance and Control

Why is it important for Enel?

Progress towards a net-zero model opens up new markets of unimaginable size. Having anticipated this trend in time, Enel can now be the undisputed leader of this transition.

A fair and inclusive transition

Energy transition will represent an important growth and modernization accelerator for the industry thanks to the potential it offers in terms of economical development. The progressive replacement of fossil fuels with renewables will permit a greater use of electricity in the energy system, with positive repercussions in economic, environmental and social terms. To fully benefit from these opportunities, forward-looking policies are required to ensure a **fair and inclusive transition** that does not leave anyone behind and that considers in particular the needs of the social categories most exposed to the change, such as communities that base their economy on coal mining. If in fact energy transition will lead, in some generation sectors, to a reduction in the number of jobs, it is necessary to be ready to create new job and requalification opportunities.

In this context, Enel, as a signatory to the commitment promoted by the United Nations on a fair transition, is committed to accelerating the energy transition, guaranteeing that the new jobs created will be fair, decent and inclusive. In particular, it is committed to:

- > promoting social dialog with workers and union representatives, in compliance with the workers' rights es-

tablished by the International Labour Organization (ILO), encouraging social protection (including pensions and healthcare) and salary guarantees, also in line with ILO directives;

- > 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.

Enel follows the approach of "think globally, act locally", 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 involvement 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 all 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 requalification 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 started in 2015 in Italy, with the purpose of giving new life to the power plants being closed (for a total of 13 GW). The approach, which proved to be successful, was therefore extended to the entire Group and will concern a portfolio of more than 40 sites on a global level.

Given the new energy-industry context, Enel's decarbonization strategy is 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 energy generation sites 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 structures 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), and in the non-energy area by promoting fair energy transition;
- > on the **Iberian Peninsula** with the progressive transition of coal-fired plants located on the peninsula (for example, Andorra in Teruel (closed in June 2020), Compostilla in León (closed in June 2020), As Pontes in La Coruña and Carboneras in Almería;
- > in **South America**, for example, with the power plants of Tarapacá and Bocamina in **Chile**, where Enel is integrat-

ing the approach of fair transition, proceeding with the progressive closure of coal-fired generation (Tarapacá and Bocamina I already closed, Bocamina II with closure planned in 2022).

During 2020, Enel also started a collaboration with CSR Europe in order to promote a high-level dialogue for a fair and inclusive transition, which has involved a wide range of key players, such as: the European Commission, environmental organizations and labor institutions, European think tanks, private sector and youth associations. The initiative is targeted toward exploring the challenges related to the transition toward a low-carbon economy, also in light of the impacts deriving from the Covid-19 pandemic, in order to create a roadmap of concrete actions that can be actually used by companies with regard to work and employment, consumption and life style, as well as finance and investments.

Involvement of the stakeholders in the fight against climate change

Enel promotes the involvement of its main external and internal stakeholders in order to increase their awareness and develop a constructive dialogue 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 2020 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 covered when identifying the main priorities for the stakeholders for sustainability planning;
- > **Enel Focus On:** over the last year, two virtual meetings were held with the main players and influencers to start an open dialogue with Group management on the main challenges of energy transition. Various climate related topics were addressed, such as renewable energies and the green technologies to guide the recovery from the economic crisis related to Covid-19 and the role of the circular economy in the sustainable development of cities;
- > **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 Futur-e project for the coal-fired plant in Andorra, Teruel (Spain)



In line with the commitment made for a fair 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:

- > maintaining the 153 people from the plant in our work force. 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;
- > giving maximum priority to hiring workers coming from existing auxiliary companies to employ in the activities of closing and decommissioning the plant. This could take

between four and six years and create approximately 130 jobs with a maximum of 200 workers employed at peak times. 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;

- > promoting the development of training programs targeted toward local communities in the area, with more than 900 beneficiaries, in order to promote new work opportunities;
- > planning 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.

Group subsidiary operating in Spain, with the objective of encouraging responsible energy consumption by collecting the opinions of experts on energy efficiency through articles, digital meetings and by supporting various sector initiatives;

- > **raising the awareness of local communities:** with the Creating Shared Value (CSV) model, Enel is involving

local communities, making them aware of topics connected 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 involvement in climate change aspects and promote a culture of innovation and business entrepreneurship on a global level to overcome the energy challenges. Enel Days 2020, which are annual company events, promoted discussions and exchanges about topics such as electrification, decarbonization, digitalization and urbanization. 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 its advocacy on climate change the Enel Group is firmly committed to:

- > **ambitious climate and decarbonization targets** consistent with the goals set forth by the Paris Agreement, for instance through initiatives like the "Campaign on Business Ambition for 1.5°" promoted by the UN Global Compact and the global campaign Race To Zero, launched in 2020 from UNFCCC and High Level Champion for Climate Ambition, as a clear sign from the international community to the governments for reaching the Paris Agreement goals in view of the COP 26, in which they will be called to review the agreement conditions;
- > **effective and efficient implementation policy mechanisms** able to harness market dynamics and in doing so it fully supports putting a price on carbon;
- > **wide stakeholder engagement on climate issues** by actively contributing to multi-stakeholder coalitions such as the UN Global Compact and the World Bank's Carbon Pricing Leadership Coalition;
- > **private sector leadership on decarbonization** through its continued participation in private sector initiatives such as WEF CEO Climate Leaders Alliance, IETA (International Emissions Trading Association), WBCSD (World Business Council on Sustainable Development), regional and national trade associations.

Enel's policy advocacy aims to promote the decarbonization strategy of the Group and pursue the Paris Agreement goals, engaging institutional stakeholders, trade associations, non-governmental organizations and academia in order to promote our view on climate and low-carbon policies. The engagement activity with stakeholders contributes to the evolution of the regulatory frameworks towards ambitious climate goals and promotes an economy

where the EU ETS drives long term investment. To do so Enel interacts directly with policy makers, contributes to the positioning of trade association, interacts with a wider set of stakeholder to create consensus and support on specific policy proposals.

According to this policy, the Group has signed the "Uniting Business and Governments to Recover Better" statement in 2020, a call that gathers the signatories from SBTi and Business Ambition for 1.5 to encourage governments to prioritize the climate emergency despite of the economic and health crisis.

As a strong supporter of carbon pricing, Enel advocates for its integration in policy making throughout the countries in which it operates. In doing so it emphasizes the importance of well-functioning carbon tax and emission trading mechanisms able to deliver short to medium term predictability supporting market efficiency as well as strong long term price signals to support long term investments and innovation.

Global coordination of Enel's global public policy positioning on climate is ensured through the Energy and Low-Carbon Policy Unit. Such unit has the responsibility of developing global outlooks and position papers on climate policies. The latter serve as guidance for Enel's national and local advocacy as well as engagement with institutions and the wider range of stakeholders active within the climate debate. In such respect Enel is also committed at working to ensure continued and full alignment with the goals of the Paris Agreement of any association of which it is a member.

At the national level, Enel's commitment on public advocacy is pursued through specific advocacy activities as well as wider stakeholder engagement on the themes of decarbonization and the energy transition. The approach is **similar to the one adopted at the global level. Advocacy goals include the promotion of greater climate ambition, carbon pricing**, the accelerated penetration of RES technologies, infrastructure development and upgrade through smart grid technologies to support the energy transition, electrification as a mean of decarbonizing final energy uses. Furthermore, through its "Energy Transition Roadmap" engagement platforms Enel engages with a wide range of stakeholders on the actions needed at the national level to pursue the goals of the Paris Agreement. Such platforms assume as a starting point decarbonization in line with the Paris Agreement by 2050, they then proceed in identifying the technological mix necessary to achieve such long term target in 2050 as well as the medium term one of 2030, to then proceed in developing specific policy recommendation aimed at achieving such transformation. All of such activities are supported by a continuous engagement with a wide set of stakeholders.

Enel's positioning on the main climate related policies and frameworks

Several regulatory and legislative events occurred in 2020 are relevant for Enel's business and advocacy actions. In light of the increased streamlining of the climate challenge within wider global, national, regional and local policy and regulation, the number of dossiers within which Enel focuses its climate advocacy has been increasing every year. Enel's positioning on such main dossiers is presented below.

- > **The Enel Group strongly promotes throughout the countries in which it operates an increased climate ambition in line with the Paris Agreement.** Having adopted as a company SBTi targets aligned with the Paris Agreement, Enel supports public policies aimed at upscaling climate action and implementing decarbonization policies within a just transition framework. Enel's advocacy in such area is implemented through *ad hoc* engagement on specific legislative proposals (e.g. the EU Climate Law), but also through a wider stakeholder engagement at the national level through Enel's "Energy Transition Roadmap" platform (see above). Through such platforms, Enel advocates for NDCs fully reflecting the highest possible climate ambition and fully in line with the requirements of the Paris Agreement.
- > **Within the Paris Agreement's debate on international cooperation, Enel strongly supports a swift finalization of Article 6 implementing provisions.** Such position is in line with the fact that Enel supports carbon pricing mechanisms implementation worldwide. The adoption of carbon pricing should involve Cap and Trade system in industrialized economies and in sectors where the economic barriers are relevant and price signals are valued by economic agents. Carbon pricing should take the form of environmental taxation in countries with weaker institutional and sectors characterized by distributed emission sources and where non-economic barriers are relevant. The Enel Group strongly supports carbon pricing as a means to efficiently and effectively decarbonize economic systems around the globe. Enel views on the implementation of carbon pricing have been conveyed directly and through the participation in the activities of IETA, CPLC, Eurelectric and WBCSD (World Business Council on Sustainable Development). In 2020 specific streams of activities have been devoted to analysis and advocacy on carbon pricing, at global, regional

(EU and Latin America), and national levels (EU Member States, Chile, Colombia, and Peru).

- > **Within the EU, the European Green Deal is a unique opportunity to accelerate the EU's journey towards a fully decarbonized and sustainable economy especially if aligned with the mobilization of significant resources to ensure a swift recovery from the ongoing pandemic.** Achieving EU's climate and environmental goals requires a new industrial strategy for reaching climate neutrality and a circular economy action plan, pursuing the decarbonization of each sector. The power sector shall aim to be completely decarbonized and ensure the decarbonization of the other sectors of the economy through direct and indirect electrification. The study "Sustainable paths for EU increased climate and energy ambition" supported by the Enel Foundation and other sources point out the fact that electrification of end uses is necessary for a full decarbonization.
- > **The EU Climate Law should enshrine the climate and other environmental-related challenges at the core of EU vision** and its inclusive and sustainable growth strategy. It should establish the long-term target of carbon neutrality at 2050 as well as the mid-term target of at least 55% reduction of GHG as the guiding objective for all other EU policies. The Law should also set a guiding vision and a governance to ensure that all EU policies, actions and strategies are aligned with the climate objective, including education, financing, R&D, innovation, fiscal policies, labor and social policies. In doing so the Law should set a principle foreseeing that all policies are designed and assessed based on a careful evaluation of their full impact. Such assessment should include the full range of multiple benefits arising including the ones on air quality, circular economy, energy efficiency. Overall, it is critical for EU's sustainable decarbonization, that the Law incorporates in a systematic way the full range of "just transition" principles, establishing that EU national policies should not "leave anyone behind".
- > **Enel supports the reform of the EU ETS that needs to be strengthened to pursue the increased EU climate ambition and supported by a Carbon Border Adjustment Mechanism.** The Linear reduction factor should be increased to deliver the additional emission reductions required to EU ETS sectors and to provide a clear price signal to the market. The Market Stability Reserve should be adjusted to increase price stability balancing the market surplus. Introducing road transport and buildings sectors in the ETS should be approached with caution as it may undermine the reliability of the short to medium term carbon price

signal with significant negative impacts on the just transition. The price uncertainty and volatility may have repercussions on final consumer energy bills, EU industrial competitiveness as well as long term price signals. It may also undermine the effectiveness of existing EU regulation in those sectors such as the Energy Performance of Building Directive and the CO2 standard in transport regulation. Finally, Enel supports the adoption of the Carbon Border Adjustment to provide higher climate ambition while reducing carbon leakage risks. The implementation of the mechanisms should go side by side with intensified discussions over increased climate ambition with EU's main global trading partners.

> **Enel supports a revision of the Effort Sharing Regulation to exploit the decarbonization potential of final uses of energy in the increased EU climate ambition.**

The revision should consider updating upwards the ESR targets by Member State in line with the 2030 increased ambition. Ambition needs to be aligned with 2050 climate neutrality, to avoid lock-in in emitting infrastructure, but price impacts needs to be smoothed. Multiple environmental benefits enable a deviation from cost-efficiency criteria as decarbonization of transport and buildings brings about environmental benefits not accounted in GHG costs. The overall burden sharing should balance cost efficiency and at the same time favor a fair allocation of efforts.

> **Enel welcomes the Commission communication on an EU Methane Strategy and the further proceedings on a legislative proposal to reduce EU-related methane emissions from fossil fuels, as both acknowledge methane as a relevant contributor to GHG emissions.**

Enel emphasizes that the new legislative proposal to reduce methane emissions in the oil, gas and coal sectors should tackle energy-related methane emissions from a structural point of view, taking into account the impact of direct and indirect methane emissions in terms of climate warming and air quality when planning new investments and assessing new energy and climate policies.

> **Enel supports an upwards revision of the 2030 EU energy efficiency headline target of at least 35%, needed to reach the increased GHG emission reduction ambition by 2030.** To achieve the ambition of net zero emissions in 2050, significant gains on energy efficiency are needed. The study "Sustainable paths for EU increased climate and energy ambition" supported by the Enel Foundation and other sources

point to increase the EU energy efficiency headline target to at least 35% from current 32,5% in order to reach a 55% GHG reduction by 2030. The revision of the Directive should consider the potential benefits of setting sectoral targets.

> **Enel welcomes the Commission's initiative to revise the Renewable Energy Directive.**

Enel believes the key contributions to decarbonize in a cost efficient way the energy sector, as well as buildings, heating and cooling, transport and industry will come from the further electrification of final uses (direct electrification and indirect electrification for hard-to-abate sectors via renewable hydrogen). Within such context, low-carbon fuels should be excluded from the scope of this Directive. Enel believes that the EU regulatory framework needs to provide long-term predictability to investors as well as streamlined and harmonized permitting procedures. Finally, Enel supports a technology neutral approach, while creating the conditions for fully sustainable technologies to compete on a level playing field in efficiently delivering the overarching targets of decarbonization, penetration of renewable resources and energy efficiency.

> **Within the EC hydrogen strategy, the Enel Group is actively promoting the renewable hydrogen** (i.e. produced via electrolysis fed by 100% RES power).

Enel believes this to be the only truly sustainable production pathway for hydrogen, at zero greenhouse gas emissions and fed by renewable sources. Hydrogen is best used as a complement to electrification, and not as competitor. It has an efficient role to decarbonize those parts of the economy that cannot be easily or economically electrified, i.e. the hard-to-abate sectors, such as heavy industry, aviation, shipping.

> **Within the smart and sustainable mobility strategy the Enel Group is actively promoting the Electric mobility** as the key factor in reducing emissions from road transport, reaching EU energy efficiency objectives and represent the clear pathway towards zero-emission mobility goal of EU.

The electrification of transport sector will increase European energy independency and unlock flexibility benefits for the grids to better integrate renewable energy sources. The commitment of the European power sector to fully decarbonize electricity "well before 2050" will also contribute to decarbonize the transport sector. To reach the overarching emissions reduction goals of European Union and allow the decarbonization of transport sector it is crucial the rapid and full-deploy-



ment of electromobility at EU level.

- > **Enel fully supports the EU Renovation Strategy and is actively engaging in the discussions preparing the revision of the Energy Performance of Buildings Directive and other EU legislation relating to buildings.**

The building sector is one of the sectors most lagging behind in decarbonization. Critical issues exist in terms of value chain, building efficiency, building smartness, choice of energy source. Enel believes it can contribute substantially to the decarbonization of the building sector with efficient electric technologies such as heat pumps, by improving the building's efficiency through digitalization, by making buildings dynamic elements of energy system providing storage, demand side response, EV charging.

- > **Enel's engaged different stakeholders on The EU Commission's New Circular Economy Action Plan, emphasizing the importance of ensuring the circularity of key supply chains** especially in the areas of EVs, batteries and renewable energy technologies. Furthermore, Enel's advocacy highlighted the methodological need to develop appropriate circular economy metrics on one hand, while on the other focus on the high potential urban environment through the implementation of clear smart city circular visions.
- > **Within the Zero Pollution dossier and other environmental dossiers the Enel Group is actively promoting maximizing the synergies between decarbonization policies and other environmental policies.** Within such context the synergies between climate and air quality policies is maybe the most critical one and electric technologies can play a key role in fighting climate change, improving local air quality and increas-

ing the circularity of the EU economic system. Land and soil management is vital to a circular economy and therefore the new soil strategy should consider the re-purposing of decommissioned industrial sites and reuse of brown fields to avoid further land take and soil pollution.

In addition to the position outlined above on specific issues, the Enel Group actively contributes within the debate of how to best upscale action to address the climate change challenge. Such activities included the following:

- > **Enel has had an active role during several preparatory events toward the next COP 26 of Glasgow**, dealing with different climate change policy issues, such as the climate ambition/net-zero challenge, carbon pricing schemes and international carbon markets.
- > **Enel's GSEP's 2019-20 Presidency focused on exploring electrification partnerships along and across industrial value chains.** The Global Sustainable Electricity Partnership (GSEP) is a unique CEO-led alliance of leading global electricity companies promoting electrification and sustainable energy development. Enel's advocacy activities during the 2019-2020 presidency of the alliance led to the GSEP's annual report "Building the electrification alliance: Bridging along and across value chains" launched through a global virtual event in late November.
- > **Enel supported the IETA in its 2020's action plan focused on exploring how emission trading can facilitate an increase in ambition in both the private and public sector.** The IETA promotes full consistency with the transparency rules and the accounting standards under Articles 5 and 6 of the Paris Agreement, the Carbon Offset and Reduction Scheme for International

Aviation and standards developed within voluntary markets. During 2020 IETA's activities focused on exploring how emission trading can facilitate an increase in ambition in both the private and public sector in order to ensure full consistency with the goals set forth by the Paris Agreement.

- > **In 2020 Enel engaged the Moroccan, Peruvian and EU governments and stakeholders through the development of Energy Transition Roadmaps (ETRs) in order to contribute to the implementation of the Paris Agreement.** ETRs are held with an open approach, sharing technical knowledge and policy views with National and International Stakeholders. The ETRs aim to fully exploit the three key levers of emission free electricity, digitalized grids and electrification, developing consistent, transparent and stable policy and regulatory frameworks needed to trigger the private sector action called upon by the Paris Agreement and promoting up-scaled and streamlined climate financing tools and market mechanisms capable of mobilizing the investments needed to fight climate change.

Enel's participation in associations and organizations

| 102-12 | 102-13 |

The Group plays an active role in various sector associations and organizations with the objective of promoting topics regarding energy transition and climate commitment on a national and global level.

Enel commits to ensure that the various industrial associations and think tanks to which it is a member operate in compliance with the goals of the Paris Agreement. Therefore, Enel systematically checks the consistency of the associations' positions with the climate policies shared at Group level. This process is guaranteed at two stages: (i) before joining the Association, through an in-depth analysis of the entity's statute; (ii) after joining the Association, either by taking positions of responsibility within the Association or by influencing the associations' positioning within the working groups.

Where the association external positioning is not aligned with Enel's own view, the company assesses whether the misalignment might be harmful for the effectiveness of Enel's own advocacy and positioning and might eventually decide to step out of the association. As an example, in the last years, we have withdrawn our participation in some associations whose view on climate policies and on how to deliver the energy transition was persistently different from our own.

For what specifically concerns the European framework, in 2020 Enel engaged in various energy relevant associations (foremost Eurelectric, Wind Europe, Solar Power Europe, EASE, EDSO, SmartEn) and prestigious think tanks (Bruegel, Friends of Europe) as well as in some sustainability policy oriented initiatives, holding also relevant positions in their governance systems. In particular, the most relevant developments over the course of 2020 are:

- > appointment of Enel representative as Chair in the Electrification & Sustainability Committee in Eurelectric and of Enel representative as Chair in the working group on social sustainability;
- > appointment of Enel executive as EASE Chairman;
- > appointment of Enel executive as Chairman within the Executive Committee of ETIP SNET (technology pillar of the EU's energy and climate policy);
- > appointment of Enel Board member in the Battery European Partnership Association (BEPa);
- > appointment of Enel President in Solar Power Europe (solar PV leading association in Europe).

Enel influences the associations' activities on the de-



carbonization policies thanks to the participation of Enel representative in the working groups and through studies and policy papers. As the EU and national governments set out to implement a range of climate policies, Eurelectric and the Enel Foundation launched the flag-ship study, “E-quality”. The study provided an analysis of how some types of policies affect households with different incomes, what can be done to address any disproportionate effects and what will be the impact of Cov-

id-19 crisis in this process. In October 2020, as EU was preparing to launch the Recovery package that aimed to speed up the climate transition to climate neutrality by 2050 while at the same time reigniting the EU economy, Eurelectric advocated for this package to support the digital and climate transition. Some of the international associations with which Enel collaborated actively in 2020 are listed below.

Industry association	Description	Main Climate Policy Positions		Enel's main role in the association	Main actions developed in 2020
		Level of alignment to Enel Climate position	Main actions		
Eurelectric	The Union of the Electricity Industry – Eurelectric is the sector association which represents the common interests of the electricity industry at pan-European level, plus its affiliates and associates on several other continents. The association counts 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 for the industry in public affairs and promotes the role of a low-carbon electricity mix.	Enel is well represented in the association, with over 40 representatives from Group companies in Italy, Spain and Romania, holding key positions within the association (at decision level structures – Committees, such as the Electrification and Sustainability Committee or the Sustainability Working Group.	Co-conduction of studies (e.g. "E-Quality") Support for the studies on grids, consumers and fleet electrification. Supporting positions on the Recovery package definition. Enel chairmanship of the European Social dialogue during 2020 tackling matters like just energy transition and upskilling/reskilling programs in partnership with Trade Unions.
Wind Europe	Wind Europe is the voice of the wind industry, actively promoting wind power in Europe and worldwide, with over 450 members and active in over 40 countries.	High	Through effective communication and its engagement in the political decision-making processes, Wind Europe facilitates national and international policies and initiatives that strengthen the development of European and global wind energy markets.	Enel has been part of the Board and is active in more than 12 working groups and task forces.	Enel has been active specially in the main policy topics like "Inception Impact Assessment for the revision of Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources" through the WG Electrification and WG Market & Regulation.
SolarPower Europe	SolarPower Europe is a member-led association representing organizations active along the whole value chain, aiming to shape the regulatory environment and to enhance business opportunities for solar power in Europe.	High	Some of the objectives of the association refer to successfully positioning solar-based energy solutions with policy-makers at the European level, producing thought leading energy market analysis, ensuring solar-based energy solutions have access to financing and funding.	In March 2020, Enel started to hold the Presidency of SolarPower Europe.	During 2020, Enel had an active role in the Emerging Markets Workstream, in particular in the draft of SolarPower's position paper "The role of solar in the Green Deal Diplomacy", the EU Strategy with Africa and the global green recovery.
The European Association for Storage of Energy (EASE)	EASE is the leading member-supported association representing organizations active across the entire energy storage value chain.	Medium	EASE promotes the role of energy accumulation in a decarbonized energy system.	During 2020 Enel started to hold the Presidency of the association. Enel is also present in the various committees such as Technical and Value Assessment Committee and Strategy Committee and various task forces and working groups.	Contribution to the Association's response on the EC consultation on "sustainability and smart mobility strategy" and "Future EU Strategy for Smart Sector Integration" and worked on many position papers such as "Hydrogen strategy".
Bruegel	Bruegel is the most important European think tank specializing in economics.	Medium	Bruegel carried out some studies and policy papers on energy transition (e.g. "Green industrial policy" blueprint issued in December).	Enel holds a position in the Board, contributing to focus the think tank attention on the Green Deal and overall sustainability topics.	In March, Enel supported Bruegel in organizing an event "Empowering the recovery" where Mr. Starace and Mrs. Kadri Simson – European Commissioner for Energy – attended as speakers.

Industry association	Description	Main Climate Policy Positions		Main actions developed in 2020
		Level of alignment to Enel Climate position	Main actions	
Friends of Europe	Friends of Europe is one of the most influential think tanks in Europe that aims at stimulating discussion on key global and European issues that span political, economic, social and environmental challenges.	Medium	To support energy transition and climate commitment policies, Friends of Europe usually publishes articles on its website and organizes events with industry, institutional representatives and civil society.	Enel is a key member and therefore participates in the State of Europe debate which is the biggest and most high-level event organized by Friends of Europe in Brussels every year. In 2020 Enel participated at high level events: one is "Europe's climate and energy summit 2020" and the other "Shifting investments for a green recovery" where Alberto De Paoli attended talking about the role of private sector in sustainable finance.
SmartEn	SmartEn is the association of market players driving digital and decentralized energy solutions.	High	SmartEn brings about the energy transition by intelligent cooperation between consumption, distribution, transmission and generation, acting as equal partners in an integrated energy system.	Enel takes part in the association, having a representative in the Board and also at working group and task force level. Enel had a relevant contribution in the implementation of the Electricity Market Design to Drive Demand-Side Flexibility report.
RES4Africa	RES4Africa gathers a network of international leaders from across the clean energy value chain and supports the creation of an enabling environment for renewables investments and strategic partnerships. RES4Africa functions as a bridge between members and partners of emerging markets for an exchange of perspectives and expertise.	High	The initiative called "renewAfrica" was officially launched at European level. It is a European multi-stakeholder backed initiative to accelerate Africa's sustainable energy transition. It seeks to catalyze transformational renewable energy investments that will foster the continent's future sustainable development. RES4Africa is a member of the Africa-Europe Foundation, a new platform founded by Friends of Europe and Mo Ibrahim Foundation to facilitate multistakeholder dialog, catalyze collaboration and unlock new opportunities that can transform dialogue into action. In particular, RES4Africa is member of the Africa Europe Strategy Group on Sustainable Energy	Enel Green Power is one of the funding members and holds the presidency of the Association. Enel is well represented within the 4 task forces created, in particular representatives from Enel Brussels office are in the Advocacy task force supporting the organization of meeting with the main European Institutions representatives.
Sustainable Energy for all (SEforAll)	SEforAll is an international non-profit organization - launched as an initiative from former United Nations Secretary General Ban Ki-moon - which collaborates with the private sector, civil society, institutions and governments to support the sustainable development goal on energy (SDG 7).	High	Enel has been a partner of SEforAll since 2011 and the Enel's CEO was appointed chairman of the organization's Administrative Board in 2020, a position he will hold until 2023.	Enel was particularly active in 2020, also in light of the Chairmanship of the CEO on the Board, and collaborated with the organization for the definition of the new 2021-2023 workplan, centered on four pillars: Energy Diplomacy and Advocacy, Energy Access and Closing the Gap, Energy Transitions and Climate and Intersection with Other SDGs. SEforALL supports the progress of SDG 7 and the Paris Agreement. In fact, the organization pursues the targets of SDG 7 aimed at: guaranteeing access to affordable, reliable and modern energy services, increasing the share of renewable energy in total energy consumption by 2030 and doubling the global rate of energy efficiency improvement.

The Enel governance model to tackle climate change

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| 102-30 | 102-31 | 102-35 | 102-36 |

Competences of corporate bodies in relation to climate change

Enel's organizational and corporate governance model defines specific tasks and responsibilities for which the Company's main governance bodies are responsible, guaranteeing that the risks and opportunities related to climate change are suitably taken into consideration during all important company decision-making processes.

The Board of Directors of Enel SpA:

- > is responsible for examining and approving the corporate strategy, including the annual budget and the Industrial Plan, which incorporate the Group's main objectives and actions, also as concerns topics of sustainability, that the Company plans to undertake to lead the energy transition and tackle climate change, promoting a sustainable business model that creates long-term value;
- > performs a guidance role and provides an evaluation regarding the suitability of the Internal Control and Risk Management System ("ICRMS"); defining the type and level of risk compatible with the strategic objectives of the Company and the Group, including risks related to climate change;
- > during 2020, it addressed climate-related matters, reflected in the strategies and company and sustainability operations, in 12 of the 16 meetings held, it also had the possibility to address the following issues in more depth: (i) an in-depth investigation into future climatic scenarios, also in order to define the Group's strategy, in consideration of the relative risks and opportunities, (ii) the management of impacts on the workers of the just transition and decarbonization, with planned upskilling and reskilling programs, (iii) the analysis of the expectations of investors regarding climate change

by means of updates for the relative engagement activities, (iv) the inclusion of the fight against climate change and the reduction in direct and indirect emissions among the parameters taken into consideration for analyzing the Group's positioning with regard to its peers;

- > is supported with regard to climate change mainly by two committees of directors: the Corporate Governance and Sustainability Committee and the Control and Risk Committee.

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;
- > regarding climate change issue it examines, for example, the climate objectives defined in the Sustainability Plan and the structure of the content regarding climate change as reported in the Sustainability Report, issuing their prior opinion to the Board of Directors;
- > held 11 meetings in 2020, in 4 of which they addressed issues connected with climate and their impact on strategies, business operations and sustainability.

The Control and Risk Committee:

- > is responsible for supporting the Board of Directors' assessments and decisions relating to the ICRMS, also as concerns climatic risks and those relating to the approval of periodic financial reports;
- > examines the contents of Sustainability Report, which includes the Consolidated Non-Financial Statement (NFS), relevant for the purposes of the ICRMS and containing the corporate disclosure on climate, issuing a prior opinion to the Board of Directors, called to approve that document;
- > held 12 meetings in 2020, in 5 of which they addressed issues connected with climate and their impact on strategies, business operations and sustainability.

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 2020 specifies that

the short- and long-term variable compensation of the Chief Executive Officer/General Manager and key management personnel is connected, among others, 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 the fight against climate change through decarbonization and the electrification of consumption;
- > during 2020 the Chairman also chaired the Corporate Governance and Sustainability Committee.

The Chief Executive Officer:

- > in exercising all his rights for managing the Company, the CEO has defined a sustainable business model by identifying a strategy targeted toward guiding the energy transition toward a low-carbon model; furthermore, always within the scope of the assigned powers, the CEO manages the business activities connected to Enel's commitment to the fight against climate change;
- > reports to the Board of Directors on the activities carried out when exercising the proxies, also including the business activities in line with Enel's commitment to tackle climate change;
- > is the director in charge of the ICRMS as regards the management of company risks, including those connected to climate change.

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 managing the strategic and financial planning process aimed toward promoting a sustainable business model by putting the fight against climate change at the center of its strategy.

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 the fight against 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 the fight against 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 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.

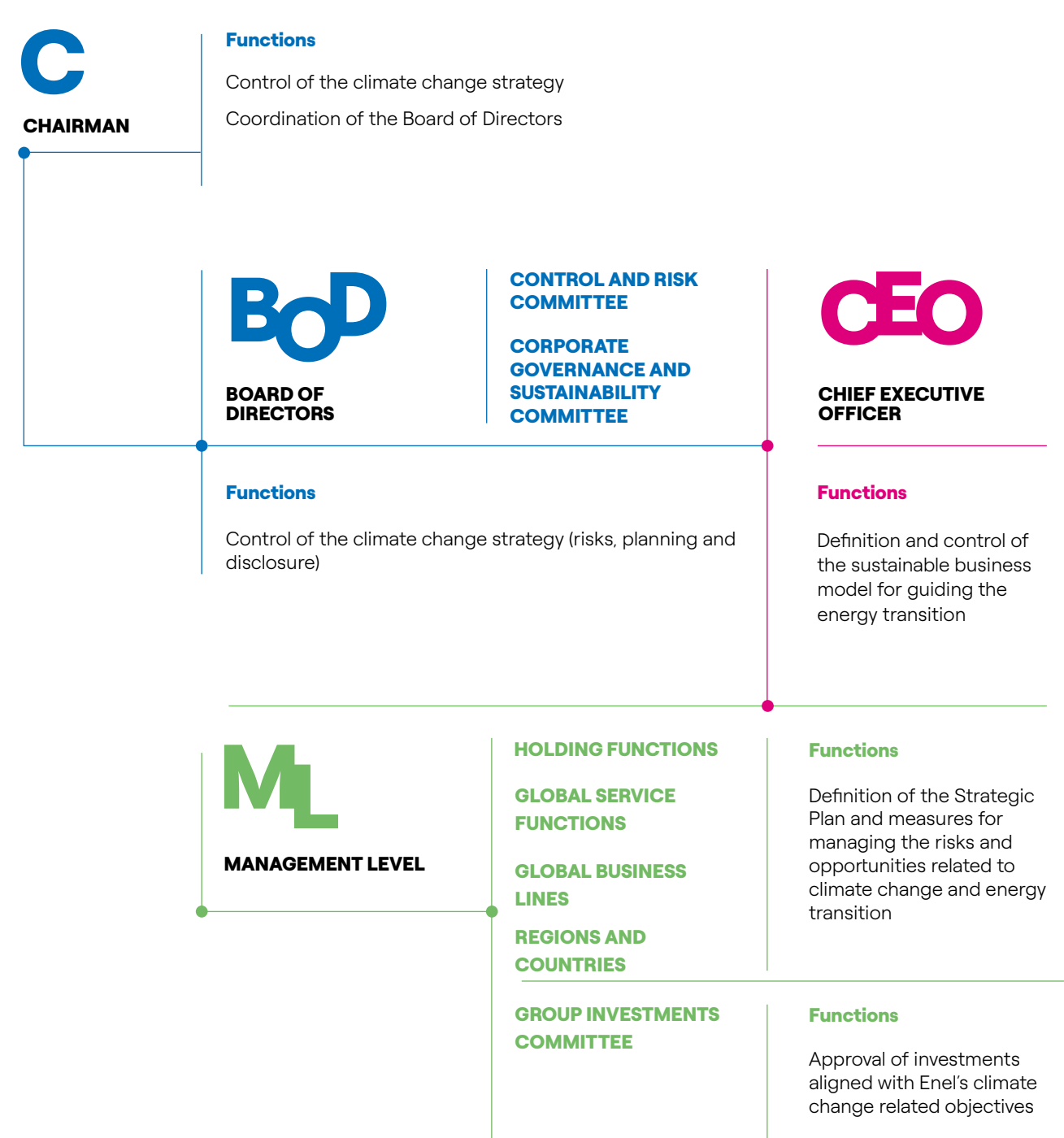
Additionally, the **Group Investments Committee**, chaired by the Chief Executive Officer, grants approval for the expenses for investments related to business development. This committee also has the task of guaranteeing that all investments are fully in line with the Group's commitment to promoting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

Incentives system concerning climate change

The Company's remuneration policy includes different mechanisms in order to progress toward energy transition, in particular:

- > a **variable short-term remuneration** (MBO) that can include objectives relative to the specific company function of each manager. For example, they can include objectives related to the development of renewable energies for the managers in the Global Power Business Line or related to energy transition solutions in the Enel X Global Business Line;
- > a **long-term variable remuneration** that, starting in 2018, includes a quantitative climatic objective, that is, the reduction of Enel Group CO₂ emissions per kWh_{eq} over the next three years, which represents 10% of total long-term variable retribution. Furthermore, the new Long-Term Incentive (LTI) system assigned to the CEO and top management for 2020 includes for the first time a new objective related to the growth of renewable net consolidated installed capacity in comparison

The Enel governance model to tackle climate change



to the total net consolidated installed capacity, which represents 15% of the long-term variable retribution.

Enel's impact on climate change

| 102-15 | 103-2 | 103-3 | 201-2 |

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 minimize 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 coal and gas) has traditionally represented the main source of greenhouse gas emissions. In particular, in 2020 the direct emissions (Scope 1) related to generation from fossil fuels were equal to about 44.8 mil t_{eq} CO₂, whereas indirect emissions (Scope 3) related to the extraction and transport of fuels were equal to 1.2 mil t_{eq} 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 2020 equal to 2.8 GW compared to 2019. In parallel, the Group is increasing the development of renewable capacity that, together with the contribution of nuclear generation, has avoided 74.8 mil t_{eq} of CO₂ 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 123 MW in 2020. 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, equal to

3.6 mil t_{eq} of CO₂ in 2020 (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.

With regard to the **end customer**, even if Enel does not have a direct impact in terms of greenhouse gas emissions in the retail market, the use of products sold by its own customers generates greenhouse gas emissions that are accounted for as indirect emissions (Scope 3). In particular, the emissions connected to the use of electricity sold to customers equaled approximately 25.0 mil t_{eq} of CO₂, whereas those related to gas sold equaled 21.5 mil t_{eq} of CO₂. Enel regularly monitors these emissions and adopts measures aimed at minimizing 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, with Enel X the Group is promoting the deployment of charging infrastructures for electrical vehicles (186 thousand charging points installed in 2020⁽¹⁾, the development of energy efficiency solutions, distributed generation, consultancy services, smart public lighting and circular cities.

(1) Installed public and private charging stations. Includes interoperability points, net of which there are 105 thousand charging stations installed at the end of 2020

Enel's impact on climate change in 2020



(1) Includes the generation of renewable and nuclear energy.

(2) The GHG Protocol requires considering the consumption of electricity when calculating the Company's carbon footprint as indirect emissions (Scope 2).

(3) Includes the contribution of the "Global Power Generation" Business Line.

(4) SAIFI, System Average Interruption Frequency Index.

(5) Public and private charging points installed. Includes interoperability points, net of which there are 105 thousand charging points installed at the end of 2020.

(6) [Other Scope 1 emissions were indicated in the paragraph "Enel's carbon footprint. See the paragraph "Greenhouse gas emissions" for further details.](#)

(7) [Other Scope 2 emissions were indicated in the paragraph "Enel's carbon footprint. See the paragraph "Greenhouse gas emissions" for further details.](#)

Climatic 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, the evaluation of investments and extraordinary corporate transactions. The role of climate change in these scenarios is increasingly important and produces analyzable effects in terms of:

- > **acute phenomena** (heat waves, flooding, hurricanes, etc.) and their potential impact on industrial assets;
- > **chronic phenomena** related to structural changes in the climate, such as the rising trend in temperatures, rising sea levels, etc., which can cause, for example, changes in the output of generation plants and in electricity consumption profiles in the residential and the commercial sector;
- > **transition** of the various industrial and business sectors toward a green economy characterized by ever lower emissions of climate-altering gases.

The issues connected with future trends in climate variables (in terms of acute and chronic phenomena) define the so-called “**physical scenario**”, while the issues associated with the industrial and economic transition toward solutions to reduce atmospheric concentrations of CO₂ are the characteristic elements of the “**transition scenario**”. The scenarios are created within the scope of a complex framework that ensures coherence between climate projections and the transition assumptions, within which to evaluate the phenomena identified in a short, medium and long-term period.

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 International Centre for Theoretical Physics (ICTP) of 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 the large amount of data underlying the scenarios, and the identification of the methodologies and metrics needed for interpreting complex very high-resolution phenomena require a continuous dialog with both external as well as internal references. For this purpose, the Group is using a platform approach, using 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:

1. **identification of phenomena relevant for business** (for example, the impact on electric demand, heat waves);
2. **development of linking functions between climatic/transition scenarios and operational variables**;
3. **identification of event trends based on scenario data** (for example, intensity and frequency);
4. **impact calculation** (for example, variation in margins, damage, Capex);
5. **strategic actions**: definition and implementation (for example, resilience plans, capital allocation).

The physical climate scenario

The Group has selected three of the climatic projections developed by the “Intergovernmental Panel on Climate Change” (IPCC) on a global scale, characterized by a specific emissions level connected to the so-called “Representative Concentration Pathway” (RCP) as shown in the following table.

In the RCP 8.5 climate projections, the geographical areas of the Mediterranean and Central/South American will suffer an impact in terms of temperature increase and rainfall

SCENARIO	AVERAGE TEMPERATURE INCREASE IN COMPARISON TO PRE-INDUSTRIAL LEVELS (1850-1900)
RCP 2.6	~ +1.5 °C by 2100 (the IPCC estimates a 78% probability of staying below +2 °C ⁽¹⁾ . 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
RCP 4.5	~ +2.4 °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 ⁽²⁾
RCP 8.5	~ +4.3 °C by 2100 . Compatible with a worst case scenario where no particular measures are taken to combat climate change

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

(2) Climate Action Tracker thermometer, global warming estimates for 2100 considering the current “Pledges&Target” (updated as of December 2020).

reduction. These effects will become more pronounced in the second half of the century and the impact increasing up to 2100. In the RCP 2,6 scenario, the effects will be similar but less intense, with the trend slowing in the second half of the century, thereby producing a substantial differential between the two scenarios in 2100.

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 Earth Sciences department of the ICTP of 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 2030–2050. The main variables are temperature, rainfall and snowfall and solar radiation. With respect to the analysis carried out in 2019, the current study is no longer based on the use of only one regional climate model (the one from ICTP) but is based on the combination of three models that are selected as representatives of the ensemble of the climate models currently found in literature. This technique is usually used in the scientific community to obtain a more robust analysis that is free of bias, mediated by the various assumptions that could characterize the single model. In this phase of the study conducted in 2020, the future projections were analyzed for Italy, Spain and Brazil obtaining, also due to the use of the ensemble of models, a more definite representation of the physical scenario.

The analyses performed on the physical scenarios considered both chronic 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 the Natural Hazard map.

This tool provides, with high spatial resolution, the return times for a series of events, such as, for example, storms, hurricanes and floods. The use of this tool, 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.

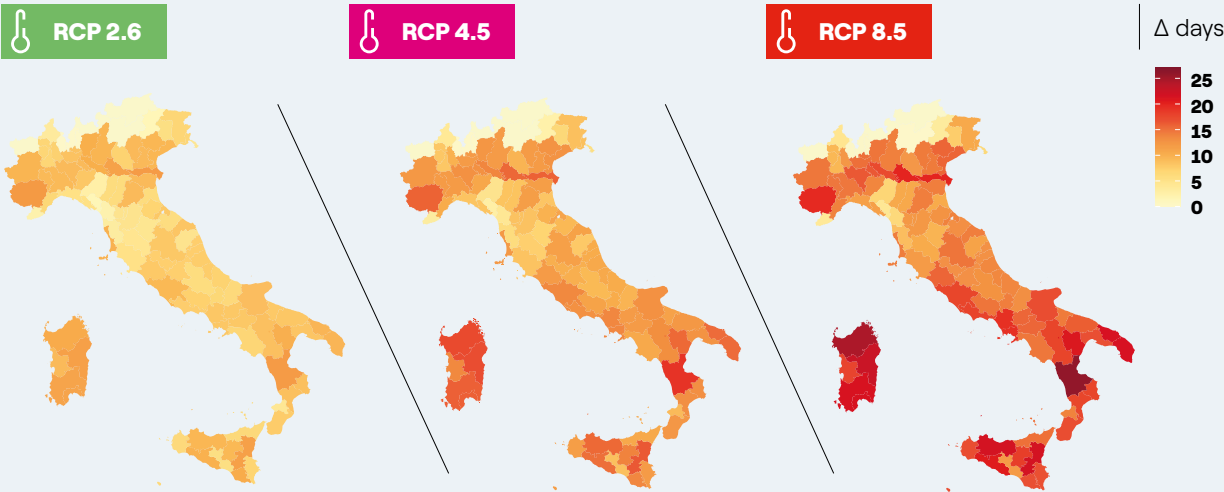
Italy

Acute phenomena: the heat waves were defined in collaboration with the ICTP and Infrastructure and Networks to obtain a description of the climate phenomenon most suitable for characterizing the critical event for business. The identified conditions (at least five straight days of high temperatures without precipitation) were searched for in the 2030–2050 projections supplied by ICTP, finding an increase in this phenomena both in terms of frequency and geographic distribution in all the analyzed scenarios. In particular, a considerable worsening of the RCP 8.5 scenario was found, especially on the islands and in the southern areas of the country.

In these scenarios, the intensity of extreme rain and snowfall events increases, but their frequency declines compared with historic trends.

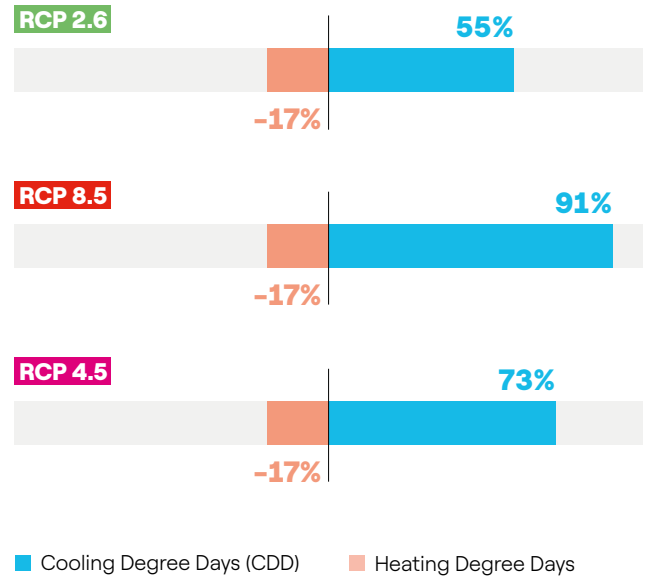
Also the risk of fire can be conditioned by climate change. The Group performed an analysis using the Fire Weather Index (FWI), which takes factors such as relative humidity, precipi-

AVERAGE NUMBER OF HIGH TEMPERATURE DAYS IN THE VARIOUS RCP SCENARIOS COMPARED WITH HISTORIC VALUES (1990–2017)



tation, wind speed and temperature into account. The days at extreme risk were selected during the 2030–2050 period and compared with those during 1990–2010. In all the analyzed scenarios, there was an increase in days at extreme risk compared to historical values, with different intensities on a geographical level. In some regions, the RCP 2.6 scenario shows a slightly higher number of days at extreme risk compared to other scenarios (RCP 4.5 and RCP 8.5), due to factors such as less humidity, which contribute toward the assessment of the fire risk.

Chronic phenomena: the average annual temperature is expected to increase over the 2030–2050 period with increases in all the analyzed scenarios. In particular, for the 2030–2050 period, an average temperature increase, in comparison to the pre-industrial period, of approximately 1.4 °C is expected and within an interval between 1.1 and 2.0 °C for the RCP 8.5 scenario. In the RCP 4.5 scenario, instead, an increase is expected between 1.0 and 1.7 °C with an average value of approximately 1.3 °C, whereas for the RCP 2.6 scenario, the interval is 0.9–1.5 °C with an average value of approximately 1.2 °C. The differential between the RCP 2.6 scenario and the RCP 4.5 and 8.5 scenarios will increase significantly during the second half of the century. Chronic changes in temperature can be analyzed to obtain information on the potential effects on cooling and heating demand in local energy systems. As indicators for the measuring of the heating requirements, Heating Degree Days (HDD) were used, which is the sum, extended to all days of the year with $T_{\text{average}} \leq 15\text{ °C}$, 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 $T_{\text{average}} \geq 24\text{ °C}$, of the differences between the T_{average} and T_{indoor} (assumed as 21 °C), respectively for heating and cooling requirements. During the 2030–2050 period⁽²⁾, there is a 17% reduction in the need for heating compared to 1990–2017, which remains constant in all the scenarios, whereas the CDD always remains higher with respect to historical data, with a growing trend passing from the RCP 2.6 scenario (+55%) to RCP 8.5 (+91%).

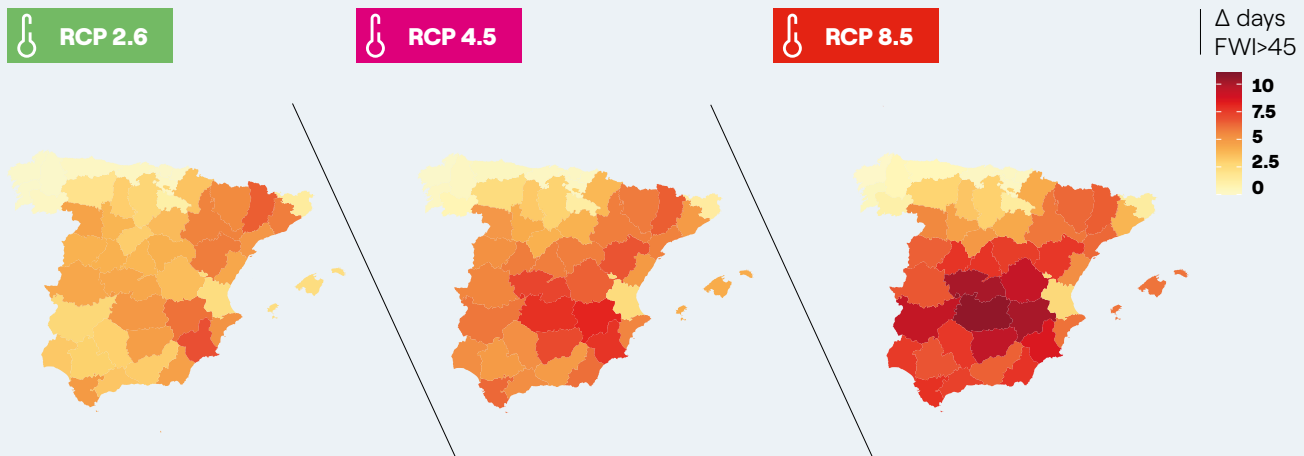


It should be pointed out that, with respect to the analysis performed in 2019, the RCP 4.5 scenario was introduced, and the ensemble of multiple models was used as the database, as previously described. Furthermore, to give more importance to the more populated areas, the HDD and CDD were calculated as an average by country, weighing every geographical node by its population through the use of the Shared Socioeconomic Pathways (SSPs) associated with each scenario.



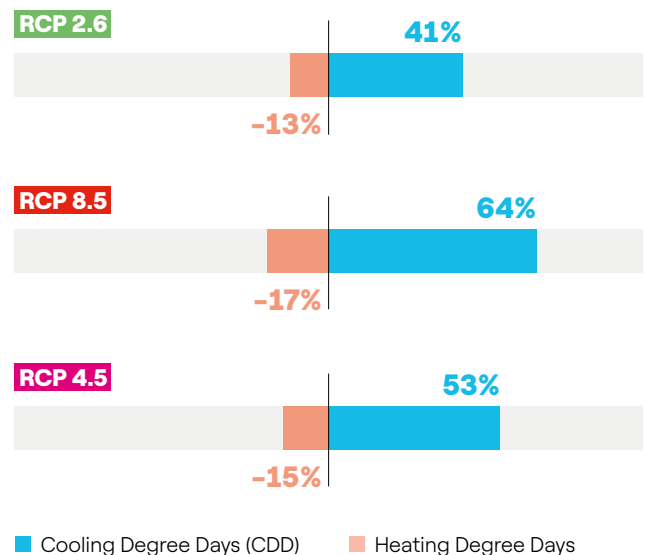
(2) The value of the FWI index considered for identifying the days at extreme risk is based on the analysis of historical data and on references supplied by the European Forest Fire Information System (EEFIS).

AVERAGE NUMBER OF EXTREME RISK DAYS: DIFFERENCES BETWEEN RCP SCENARIOS AND HISTORICAL VALUES



Acute phenomena: over the 2030-2050 period, heat waves are expected to increase appreciably in frequency, with their geographical spread expected to expand, especially in the southern area of the country. Extreme rainfall will increase in intensity but its frequency will decline. At the same time, extreme snowfalls will largely remain located in the current geographical areas but their frequency and intensity could decline sharply. As regards the fire risk, the number of days at extreme risk is higher in the RCP 8.5 scenario compared to the RCP 2.6 scenario, and always with an increase in comparison to the historical average.

Chronic phenomena: the average annual temperature is expected to increase over the 2030-2050 period with increases in all the considered RCP scenarios. In particular, for the 2030-2050 period, an average temperature increase, in comparison to the pre-industrial period, of approximately 1.4 °C is expected (in an interval between min +1.2 and max +1.8 °C) for the RCP 8.5 scenario. In the RCP 4.5 scenario, instead, an average increase of approximately 1.2 °C is expected (min 1.0 °C and max 1.5 °C), whereas for the RCP 2.6 scenario, an average increase of approximately 1.0 °C is expected, with an interval between 0.8 °C and 1.3 °C. The differential between the RCP 2.6 scenario and the RCP 4.5 and 8.5 scenarios will increase significantly during the second half of the century. In terms of HDD and CDD, for the 2030-2050 period, compared to the 1990-2017 period, we estimate a reduction in HDD (-13%) and an increase in CDD (+41%) in the RCP 2.6 scenario, and a variation in HDD and CDD respectively equal to -17% and +64% in the RCP 8.5 scenario.

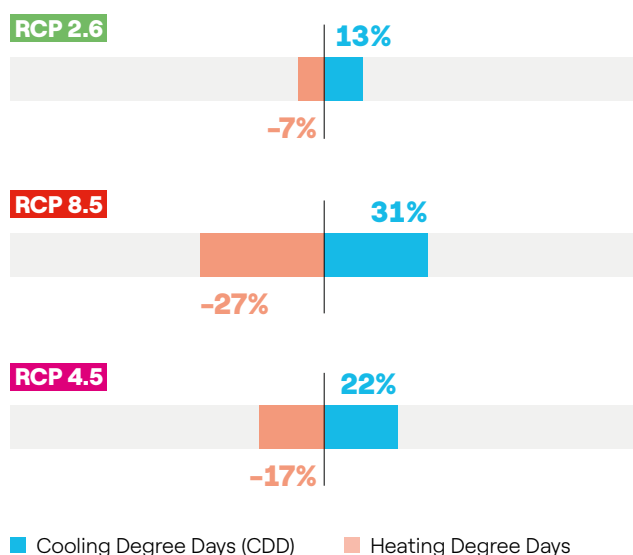


Brazil

Acute phenomena: the trend of acute phenomena in countries very large such as Brazil, can show significantly different trends in the various areas. Our analyses focus on the areas of interest for the Group. For example, the first studies carried out for the State of São Paulo show an increase in heat waves. In Brazil, the climate projections estimate a larger average reduction in precipitations in the north, with extreme phenomena to be analyzed on a local scale. From the first analyses, the number of days with an extreme fire risk seems to be projected with an increase both in the RCP 8.5 scenario and with respect to the RCP 2.6 scenario in comparison to the historical average, with greater criticality in the central-west and north-east areas of the country. As for precipitation, also the fire risk will be analyzed in more depth on a local scale based on the needs

of the Group. Keep in mind that these considerations are the result of analyses performed based only on one climate model and not on an ensemble of multiple models, as was done for Italy and Spain.

Chronic phenomena: the average annual temperature during 2030–2050 is expected to increase with respect to pre-industrial levels in every scenario. In particular, for the 2030–2050 period, an average temperature increase, in comparison with the 1850–1900, of approximately 1.6 °C is expected (min +1.2, max +2.1 °C) for the RCP 8.5 scenario. The RCP 4.5 scenario instead foresees an average increase of approximately 1.3 °C (min +1.0, max +1.7 °C), whereas the RCP 2.6 scenario foresees finally an average increase of approximately 1.1 °C with an interval between +0.8 and 1.4 °C. In terms of HDD and CDD, during 2030–2050, in comparison to 1990–2017, there is a reduction in HDD (–7%) and an increase in CDD (+13%) in the RCP 2.6 scenario, passing to HDD and CDD values that arrive respectively to –27% and +31% in the RCP 8.5 scenario.



The transition scenario

The transition scenario refers to the description of how the generation and consumption of energy evolves in various sectors in an economic, social 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, increasing energy efficiency, the decarbonization of the electricity sector and the reduction in oil consumption;
- > **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), and others. 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;
- > **the evolution of technologies for generation**, conversion and energy consumption, in terms of both technical operating parameters and costs.

Based on the described context, the transition scenario framework the Group used as a basis for the impact analysis regarding the risks and opportunities inherent to climate change considers **two scenarios**: one “**inertial**” (**Reference**), established mainly based on current or announced policies as well as specific internal assumptions regarding the evolution of individual variables of interest, and a more ambitious one (**Brighter Future**), in line with reaching the Paris goals, which presupposes stricter objectives in terms of reductions in carbon dioxide emissions and increases in energy efficiency, as well as the possible acceleration in the reduction in cost of some technologies. This second case involves an incremental growth in electric generation from renewable sources and a greater demand in electricity due to the increased electrification of final consumption, guided mainly by more ambitious objectives in terms of energy efficiency and decarbonization.

If the countries with greatest emissions do not adopt effective decarbonization policies, instead pursuing policies that produce no change or actually worsen conditions, any particularly ambitious transition trajectories defined on a local level could co-exist with worsening climate change scenarios with respect to the Paris goals. In fact, the ambitions of individual countries regarding mitigation actions

are not sufficient on their own to determine long-term trajectories of emissions and the resulting RCP pathways.

To process the transition scenarios related to the countries included in the analysis, the Group has equipped itself with quantitative tools that incorporate assumptions regarding the evolution of policies, technologies and other context variables to produce corresponding projections for energy demand, electricity demand, electricity generation, the penetration of renewables and electric vehicles, etc. In short, all the variables that characterize a national energy system relevant to the Group's activities.

Once the medium-long term transition scenarios have been determined, the adopted scenario framework will make it possible to analyze the longer-term chronic physical effects determined on a local level by the considered climatic pathways. An example is the analysis of the impact the change in temperature has on electric demand. For this purpose, the two scenarios Reference and Brighter Future for Italy and Spain, as previously described, were integrated with the HDD and CDD of RCP 4.5 and RCP 2.6 respectively. This made it possible to quantify the effect that temperature change has on energy demand (total, not just electric) for cooling and heating in residential and commercial sectors. The time period on which the analysis concentrates refers to the period from 2030 to 2050, during which the current European Union policy regarding the goal of carbon neutrality, in both scenarios Reference and Brighter Future, converge in 2050 toward decarbonized and electrified energy systems.

Through the use of integrated energy system models, it is possible to quantify the individual service demands for a country. This level of detail makes it possible to distinguish the specific effects that temperature change can have on energy requirements. Considering the entire time period that was analyzed, the scenario of reaching carbon neutrality faster provided by Brighter Future is more efficient and electrified in comparison to Reference. This difference in the speed of transition involves an average increase in electric demand in the Brighter Future scenario as compared to Reference during 2030-2050 of between 3% and 4%. When also considering the effect of temperature and analyzing the differences between the two scenarios associated with the two different RCP 4.5 and 2.6, there is an average increase in electric demand of less than 1% both for the Reference scenario and for Brighter Future. In the later years, this impact can reach 2%. Considering the coherent view, the potential effect of more ambitious transition scenarios has a more significant impact on electric demand than the increase in temperature resulting from climate change.

With the purpose of further analyzing what effect temperature has on the transition scenarios, and at the same

time expand the range of assumptions concerning climate change, a sensitivity analysis was performed associating the Reference scenario with RCP 8.5, as well as RCP 4.5. Assuming such an additional increase in temperature, with the same energy transition, leads to an increase of less than 1% in demand in the Reference RCP 8.5 with respect to the one with RCP 4.5.

If on the one hand the trends regarding day degrees are similar, the substantial difference between Italy and Spain concerns the energy system at 2030. For the latter, in fact, the Reference scenario is very similar to Brighter Future, in line with the national energy plan that already appears very challenging. As a result, the effect of the temperature between RCP 2.6 and 4.5 remains, as for Italy, less than 1% and in the same direction, and the effect relative to transition remains negligible³.

If for Italy and Spain the role of temperature is contained, Brazil, which is another country of particular interest for the Group, could have a more considerable increase in demand due to the increase in temperature, equal to a few percentage points of total demand. This is caused by the greater demand for cooling expected in the country. These estimates are in any case subject to a considerable degree of uncertainty, given the significant volatility of Brazil's economic growth.

(3) It should be pointed out how the considerable electrification of the heating service in the residential sector in future years could change the direction and the order of magnitude of the effect related to climate change, both for Italy and for Spain.

The strategy for facing 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. Capital employment is in fact centered on decarbonization, through the development of generation assets from renewable sources, in 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 this context, it becomes fundamentally important to extend the strategic vision to the medium-long term. Guided by this need, in November 2020 Enel presented the new Strategic Plan with a vision that arrives up to 2030, with its strategy focusing on the acceleration of the energy transition together with sustainable and remunerative growth to create a significant share value for customers, society and the environment, in addition to an interesting profit for shareholders over time.

Thanks to platform-based models, during this decade utilities will reinforce their guiding role at the vertex of increasingly complex systems, which will include a growing number of distributed generation assets, with an increasingly active role of end customers. A digital platform-based and multi-layer model that connects data and solutions will be of fundamental importance for going through and successfully completing this transformation phase.

As a “platform-based” operator, the Group will be able to take advantage of new opportunities to create value using two complementary business models:

- > the **Ownership business model**, in which the platforms are promoters of business to support the profitability of direct investments in renewables, grids and customers and that supports sustainable long-term growth, in which the operative platform-based models also perform an important enabling role;
- > the **Stewardship business model**, in which the Group offers services with high added value, products or



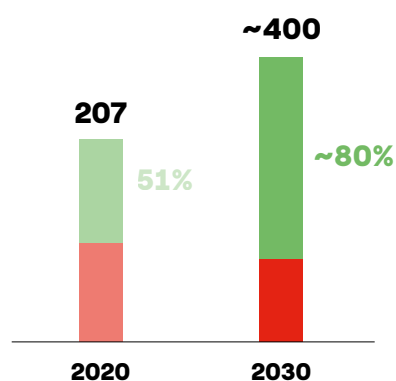
know-how, by means of platforms that mobilize investments by third parties to maximize the creation of value. In this way, the Group intends to mobilize 190 billion euros in investments during 2021-2030, promoting decarbonization, the electrification of consumption and the development of platforms for creating shared and sustainable value for all stakeholders and medium- and long-term profitability. The Group intends to directly invest approximately 160 billion euros, of which more than 150 billion euros by means of the Ownership business model and approximately 10 billion euros through the Stewardship model, mobilizing at the same time an additional 30 billion euros from third parties.

2030 vision

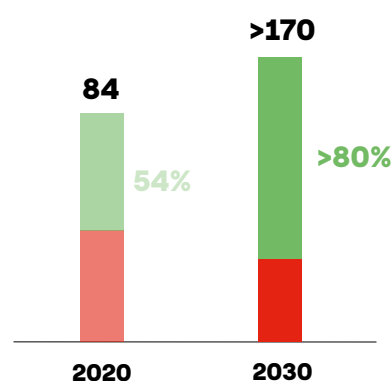
Within the scope of **energy generation**, the increase in renewable capacity with the simultaneous reduction in thermal capacity, which includes the early closure of the coal-fired plants by 2027, represent the two main strategic levers that the Group intends to use to reach the decarbonization of its generation mix.

The investments planned for the energy generation activity in the Ownership business model for 2021-2030 include a

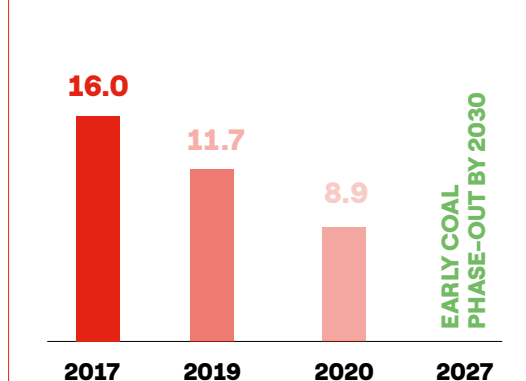
GENERATION TREND
(TWh)



CAPACITY TREND
(GW)



COAL CAPACITY TREND
(GW)



Renewables (including capacity and managed generation)



Conventional generation (coal, CCGT, oil/gas, nuclear)

total of approximately 65 billion euros for renewable energies, which will make it possible for the Group to add an additional 75 GW of renewable capacity, which will be well balanced between solar and wind, to the actual consolidated 45 GW, for a total of approximately 120 GW of installed capacity in 2030 (2.7 times greater than current levels). The investments mainly concern countries with the integrated presence of the Group, but the various Countries and Regions involved will permit a natural derisking with respect to the volatility of renewable resources. In order to achieve this result, the Group will use the largest pipeline of renewable projects worldwide, around 206 GW at December 2020, together with a global platform-based model for Business Development, Engineering and Construction and Operation and Maintenance activities. Furthermore, Enel is planning to invest an additional 5 billion euros in hybridization of renewable sources and storage stems, whose potential will reach approximately 20 TWh in 2030. Significant opportunities will also arrive from the segment of green hydrogen, for which Enel intends to integrate the electrolyzer in renewable plants that produce electricity for direct sale or for dispatching services, selling green hydrogen also to industrial customers. The Group plans to increase its green hydrogen capacity to more than 2 GW by 2030.

Furthermore, the **distribution grid** plays a central role in the energy transition process as an enabler in the transformation of the electricity market toward renewable sources. Therefore, it is estimated that approximately 46% of the investments as of 2030 regarding the Ownership business model will be dedicated to the Infrastructure and Networks business, with the goal of obtaining im-

provements in terms of service quality and grid resilience, of increasing the number of connections and improving the level of infrastructure digitalization. Thanks to these initiatives, Enel expects to expand the number of final users to more than 90 million, all of which will have smart meters, from the current 74 million, of which 60% have smart meters.

The remaining part of investments concerning the Ownership business model, approximately 5%, will be dedicated to customers. The Group will have an enabling role in the electrification process by accelerating the customer's path toward sustainability and energy efficiency, combining a traditional offer with "beyond commodity" services. These activities will benefit from the largest customer base on a global level, from digital platforms and a growing integrated portfolio of offers. The Group's strategy will include all segments: B2C (Business to Customer), B2B (Business to Business) and B2G (Business to Government). As regards the Stewardship business model, during 2021-2030 Enel expects to directly invest 10 billion euros, while mobilizing at the same time approximately 30 billion euros from third parties, for a total investment of approximately 40 billion euros, mainly in renewable energies, in fiber, in electric mobility and in flexibility services.

2021-2023 Strategic Plan

During 2021-2023, Enel plans to directly invest approximately 40 billion euros, of which 38 billion euros through the Ownership business model, mainly in the growth of grids and renewables, and approximately 2 billion euros in the Stewardship model, while mobilizing at the same time 8 billion euros from third parties.

With reference to the **business of renewable energies**, both business models will allow Enel to construct approximately 19.5 GW of new renewable capacity during the three years of the plan:

- > within the framework of the Ownership business model, Enel plans to invest a total of 16.8 billion euros, of which 15.7 billion euros for the development of more than 15.4 GW of new capacity, mainly in countries with an integrated presence;
- > within the framework of the Stewardship business model, Enel plans to mobilize a total of 3.8 billion euros, of which 500 million euros in direct investments and 3.3 billion euros from third parties. This investment will lead to 4.1 GW of new capacity.

Ordinary EBITDA connected to energy generation is expected to reach approximately 7.7 billion euros in 2023, an increase of 11.6% compared to 7.0 billion euros in 2020. This growth will be driven by the business of renewables, whose ordinary EBITDA is expected around 6.5 billion euros in 2023 (+1.8 billion euros compared to approximately 4.7 billion euros in 2020), but with a drop in ordinary EBITDA for thermal generation to approximately 1.2 billion euros in 2023, from approximately 2.2 billion euros in 2020.

In the **Infrastructure and Networks business**, Enel expects to invest 16.2 billion euros in the three-year period, increasing the average annual investment to approximately 5.4 billion euros. 65% of this amount will be used for improving service quality and grid resilience, approximately 23% for new connections and approximately 12% for digitalization. The ordinary EBITDA of Infrastructure and Networks is expected to be approximately 9.5 billion euros at the end of 2023, with an increase of 23.4% as compared to approximately 7.7 billion euros in 2020.

The remaining amount is associated with the **Customer business**, where the value of residential customers (B2C) is expected to increase approximately 30% in comparison to an increase of approximately 45% for business customers (B2B) as a result of the expansion in the free market customer portfolio and the electrification trends of energy consumption that promote demand for “beyond commodity” services. Finally, in the B2G segment, the Group expects to continue supporting the progress cities are marking toward

electric mobility, by adding approximately 200 thousand public charging stations in 2021-2023 and contributing, with direct and indirect investments, to put approximately 5,500 electric buses into service (a 6-fold increase in comparison to 2020).

At the end of the period of the plan, Enel X aims to reach approximately 780 thousand public and private charging points made available on a global level, from 186 thousand in 2020⁴ (+6 times), approximately 10.6 GW of demand response capacity from the 6 GW offered in 2020 (+1.8 times), in addition to the 500 MW of stored capacity, from 123 MW in 2020.

The ordinary EBITDA associated with the customer business is expected to reach 4.5 billion euros at the end of 2023, compared with 3.4 billion euros in 2020, with a contribution of approximately 500 million euros of B2C, approximately 400 million euros of B2B, and approximately 100 million euros of B2G.

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 the fight against climate change (SDG 13). Enel expects in fact that approximately 90% of the consolidated investments during 2021-2023 will directly contribute toward this goal. Furthermore, it is estimated that these investments will be aligned with the criteria of European taxonomy, with a percentage between 80% and 90%, considering the substantial contribution toward the mitigation of climate change.

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 ex-

(4) Installed public and private charging stations. Includes interoperability points, net of which there are 105 thousand charging stations installed at the end of 2020

amines 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-climatic events.

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 specific **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 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

FRAMEWORK OF MAIN RISKS AND OPPORTUNITIES

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 (Italy 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. 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.	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.
Transition	Starting with medium term (2024-2029)	Policy & Regulation	Risk/opportunity: policies on CO ₂ prices and emissions, energy transition incentives, greater scope for investment in renewables and resilience regulation.	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, networks 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.

Scenario phenomena	Time horizon	Risk & opportunity category	Description	Impact	Management approach
Transition	Starting with medium term (2024-2029)	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 trends in the proportion of renewable sources in the energy mix, electrification and the penetration of EVs to estimate their potential impacts.	The Group is maximizing opportunities by adopting a strategy founded on the energy transition and the rapid expansion of renewable generation and the electrification of energy consumption .
Transition	Starting with medium term (2024-2029)	Product & Services	Opportunity: increase in margins and greater scope for investment as a consequence of the transition in terms of greater penetration of new electrical technologies for residential consumption and electric transportation .	Trends in the electrification of transportation and residential consumption will potentially have an impact on our business.	The Group is maximizing opportunities thanks to its strong positioning in new businesses and "beyond commodity" services .
	Starting with medium term (2024-2029)	Technology		Considering two alternative transition scenarios, the Group assesses the potential opportunities to scale up current businesses in response to trends in the electrification of transportation.	The Group is maximizing opportunities thanks to its strong positioning in global networks.

physical and transition scenarios with the potential impact on the Group's business. These effects can be assessed from the perspective of three time horizons: short-medium term (1-3 years), in which sensitivity analyses based on the Strategic Plan presented to investors in 2020 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 can potentially begin to emerge.

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 hydro generation;
- > **solar generation:** variation in the average level of solar radiation, temperature and rainfall with a potential increase and/or reduction in solar generation;
- > **wind generation:** variation in the average wind level with a potential increase and/or reduction in wind generation.

As regards the effects of chronic physical changes, 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.

Scenario analysis has shown that chronic structural changes in the 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, 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 are: 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.

Scenario phenomena	Risk & opportunity category	Time horizon ⁽¹⁾	Description of impact	GBL affected	Scope	Quantification - Type of impact	Quantification - range		
							<100 €mil	100- 300 €mil	>300 €mil
Chronic physical	Market	Short term	Risk/opportunity: Increase or decrease in electricity demand. Electricity demand is also affected by temperature, whose fluctuations can have an impact on our business. Although structural changes should not emerge in the short/medium-term, in order to assess the sensitivity of Group performance to potential temperature variations, we have performed an analysis of sensitivity to changes of +/- 1% in electricity demand for the Group as a whole.	Global Power Generation and Global Infrastructure and Networks 	Group	EBITDA/ year	+1%		
							-1%		
						Group Potential hydroelectric output	+10%		
							-10%		
Chronic physical	Market	Short term	Risk/opportunity: Increase or decrease in renewables generation. Renewables generation is also affected by the availability of resources, whose fluctuations can have an impact on our business. Although structural changes should not emerge in the short/medium-term, in order to assess the sensitivity of Group performance to potential temperature variations, we have performed an analysis of sensitivity to changes of +/- 10% in potential electricity output by technology.	Global Power Generation 	Group Potential wind output	EBITDA/ year	+10%		
							-10%		
					Group Potential solar output	EBITDA/ year	+10%		
							-10%		

(1) Time horizon : short (2020-2022); medium (up to 2030); long (2030-2050).

 Upside scenario current policies  Downside scenario current policies

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.

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. 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 so-called "return time". 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 point 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.

- > The **vulnerability**, that, in percentage terms, indicates 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 represents 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** – provides 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. In the case of the vulnerability of assets in the portfolio, the priorities of the impact of the various extreme events have on the various technologies have been defined.

EVENT TYPE		Estimated Impact					
		Lower		Higher			
		Heatwave	Floods	Heavy snow	Hailstorm	Windstorm	Wildfire
	Thermal						
	Solar						
	Wind						
	Hydro						
	Lines						
	Demand						

Managing the risk of extreme events

Over the short term (1–3 years) the Group, in addition to what was illustrated above in terms of risk assessment and qualification, 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.

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:

- > **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;
- > **Liability Program**, this 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 in-

surance 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.

Management of acute physical risks regarding the generation of electricity

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);
- > **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.

Furthermore, the Group has performed work for **improving the physical resilience** of its electric generation plants, including:

- > 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.

Management of acute physical risks regarding infrastructures and the electricity grid

The Group has prepared **specific policies and actions** targeted toward facing the various aspects and various risks inherent to climate change within the scope of the infrastructures and the electricity grid. In particular:

- > **policy for preparation and recovery during emergencies:** 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;
- > **Guidelines for the Resilience Plan of the electricity grid:** their objective is to identify the extraordinary climatic events that will have the greatest impact on the grid. 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. In Italy, this policy is reflected in the Resil-

ience Plan that e-distribuzione has prepared every year since 2017, and which represents an 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). During 2017-2019, approximately 400 million euros were invested and a similar amount will also be used in the following three-year period (approximately 130 million euros per year), concerning approximately 3 million customers and up to 4,000 km of medium voltage lines. Also in other countries, both in Europe and in South America, similar topics are being analyzed to be able to prepare a process for the planning of *ad hoc* investments;

- > **policy on the prevention and preparation of the risk of fire for electrical installations:** an integrated approach for managing emergencies applied to the phenomenon of forest fires, both if they are caused by the grid themselves or if they originated from external phenomena and, in any case, when they are potentially dangerous for Enel's assets;
- > **systems for weather forecasting, grid monitoring** and assessing the impact of critical climatic phenomena on the grid.

During 2020, the phenomena of **heat waves** was further analyzed. In light of the climatic scenarios prepared *ad hoc* to assess the extreme event-cost historical correlation, using a particularly critical year as the reference year (2017, selected both due to the intensity of the phenomenon and for its extension through the entire national territory), an initial **estimate was obtained of the possible costs** associated with an increase in the heat waves during 2030-2050. These **estimates of the potential future extra annual** cost were evaluated in the three RCP scenarios (for 2030-2050), demonstrating how in a RCP 2.6 scenario they **do not represent more than 3%** of the annual value of the work planned **in the current 2020-2022 Resilience Plan** described above, just as they do not exceed **5%** in the RCP 8.5 scenario.

The 4R approach for improving the resilience of the electricity grid

Over recent years, in order to deal with extreme climatic events, the Enel Group has adopted **an approach called “4R”** which uses a specific policy to define the measures to adopt, both when preparing for an emergency on the grid, and to quickly restore service *ex post*, that is when the climatic events cause damage to the 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. The first, in particular, do not aim to improve the service quality, rather to reduce the risk of prolonged and extended interruptions in the care of rare critical events with a large impact, according to a probabilistic approach;
- 2) **“Readiness”**: includes 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”**: is the last 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.

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 main identified risks and opportunities are illustrated below:

Policy and regulation

- > **Limits on emissions and carbon pricing**: the enactment of laws and regulations that introduce more stringent emissions limits by government action (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 in 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 that recovery could be slower than planned, with an associated reputational risk.
- > **Financial measures for 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 subsidized 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.
 - **Risks:** exposure of “merchant” technologies to the volatility of market prices.

Technology

- > **Penetration of new technologies:** 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 developing technology solutions.

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 and electrification of industrial consumption:** 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.

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

To instead quantify the risks and opportunities deriving from the energy transition in the long term, two transition scenarios, described in the “Transition scenario” paragraph have been considered for Italy and Spain. The effects on the variables most relevant for business have been identified, in particular in the Brighter Future scenarios, that is the electricity demand (driven by increased electrification of consumption) and the generation energy mix. These considerations offer a basis for determining the Group’s strategic positioning in terms of resource allocation. A greater ambition in terms of decarbonization and energy efficiency involves the dynamics related to energy transition that can provide greater opportunities for 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 energy vectors.

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 Brighter Future scenario would have on 2030

results compared to the Reference scenario.

Considering the level of ambition defined in the national plan, the two scenarios in Iberia do not foresee substantial increases in the penetration of renewable energies, and therefore no considerable impacts are estimated resulting from variations in the price of energy.





In Italy, on the other hand, the Brighter Future scenario enables greater penetration of renewable energies, with additional effects on installed capacity, which is partially balanced by a possible reduction in energy prices. Similar effects are highly probably in other Countries and Regions, such as in North America.

In reference to the electrification of consumption, instead, the Brighter Future scenario shows higher penetration rates for the most efficient electrical technologies. In particular, the considerable increase in electrical vehicles and heating/cooling systems that use heat pumps will cause a 5% increase in demand as compared to the Reference scenario, which is estimated to determine positive impacts both on the retail business and on the services offered by Enel X. The greater penetration of heat pumps could also generate a reduction in the sales of gas in the retail area, due to the gradual transition toward the electric carrier; the overall effect is however estimated as being positive from the point of view of EBITDA results, together with a reduction in CO₂ emissions connected to the Scope 3 SBTi goals. The Brighter Future scenario, as previously seen, will involve a considerable increase in complexities that must be man-


aged by the grids in various countries and regions.


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.

Risk & opportunity category	Time horizon ⁽¹⁾	Description and impact	GBL affected	Scope	Quantification - Type of impact	Quantification - range		
						<100 € mil	100- 300 € mil	>300 € mil
Policy & Regulation	Short/medium term	Risk: Impact on margin due to measures affecting CO ₂ price.	Global Power Generation	Italy and Iberia	EBITDA/year			
		Considering the potential impact of regulatory measures to incentivize energy transition, the Group assesses the exposure to changes of +/- 10% in the price of CO₂ using sensitivity analysis.				+10%		
Global Power Generation	Medium term	Opportunity: Greater room for investment in new renewables capacity. Risk: Decrease in power prices due to increased penetration of renewables.	Global Power Generation	Italy and Iberia	EDITDA 2030/ Brighter vs Reference			
		Considering the two alternative transition scenarios, the Group assessed the impact of an increase in the penetration of renewables on the benchmark power price and on additional capacity at 2030.						

Risk & opportunity category	Time horizon ⁽¹⁾	Description and impact	GBL affected	Scope	Quantification - Type of impact	Quantification - range		
						<100 €mil	100- 300 €mil	>300 €mil
Market	Medium term	<p>Opportunity: Increase in margins due to impact of transition on electrification of energy consumption. Risk: Increase in competition and possible decrease in market share.</p> <p>Considering two alternative transition scenarios, the Group assesses the impact of trends in efficiency, the adoption of electric devices and the penetration of EVs to estimate its potential effect on electricity demand, including the effect on gas customers associated with the increase in electrification.</p>	End-user Markets 	Italy and Iberia	EBITDA 2030 Brighter vs Reference			
Product & Services	Medium term	<p>Opportunity: Increase in margins and greater scope for investment due to impact of transition in terms of penetration of new technologies and electric transportation.</p> <p>Considering two alternative transition scenarios, the Group has assessed the impact of trends in the electrification of transportation and residential consumption to assess the potential effects.</p>	Enel X 	Italy and Iberia	EBITDA 2030 Brighter vs Reference			

(1) Time horizon : short (2020-2022); medium (up to 2030); long (2030-2050).

 Upside scenario current policies

 Downside scenario current policies

Enel's performance in the fight against climate

| 103-2 | 103-3 | 305-1 | 305-2 | 305-3 | 305-4 |

Enel's carbon footprint

In 2020, Enel's carbon footprint was equal to 98.0 MtCO_{2eq} (26% lower than 2019), mainly due to the reduced generation of electricity from fossil fuels, divided as follows:

- > **Scope 1:** 45.3 MtCO_{2eq} (35.3% decrease compared to 2019) which represents 46% of total GHG emissions. 99% of these emissions is produced by thermal power. Furthermore, the percentage of emissions related to EU ETS is equal to 53% of the total Scope 1 (compared to 49.5% in 2019);
- > **Scope 2:** 5.0 MtCO_{2eq} (7% decrease compared to 2019) which represents 5% of total GHG emissions. Furthermore, 71% of the Scope 2 emissions are related to the

technical grid losses in the distribution grid;




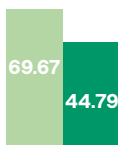








- > **Scope 3:** 47.7 MtCO_{2eq} (16% decrease compared to 2019) which represents 49% of total GHG emissions. The use of sold assets (electricity and gas retail market) represented 98% of the footprint of these emissions.

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).

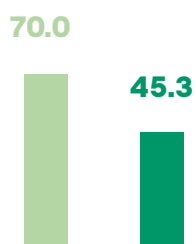
For more details concerning Enel's carbon footprint, refer to the 2020 GHG inventory (accessible in the web site in the Sustainability section)

Our carbon footprint

■ 2019 ■ 2020

VALUE CHAIN	Electricity generation		Electricity distribution		End customer		Other	
GLOBAL BUSINESS LINE							Real Estate	
GHG SCOPE 1 direct emissions (MtCO _{2eq})	1 Thermal generation 	2 Other 	3 SF ₆ losses 	4 Auxiliary motors 	Including in source "5"		5 Sites and offices 	6 Company fleet 
GHG SCOPE 2 indirect emissions (MtCO _{2eq}) (location based)	7 Electricity purchase 		8 Technical losses from the grid 	9 Electricity purchase 	Including in source "10"		10 Electricity purchase 	
GHG SCOPE 3 indirect emissions (MtCO _{2eq})	11 Coal (upstream) 	12 Diesel & fuel oil (upstream) 	-		14 Sale of electricity 			
	13 Transportation of other raw materials and waste (upstream) 				15 Sale of natural gas 			

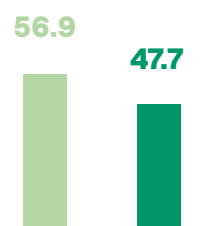
**TOTAL DIRECT EMISSIONS
GHG SCOPE 1**
(MtCO_{2eq})



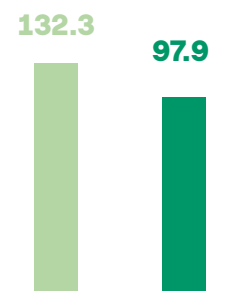
**TOTAL INDIRECT EMISSIONS
GHG SCOPE 2**
(MtCO_{2eq}) (location based)¹



**TOTAL INDIRECT EMISSIONS
GHG SCOPE 3**
(MtCO_{2eq})



**TOTAL EMISSIONS
GHG**
(MtCO_{2eq})



(1) Market based: 2019 = 8.3; 2020 = 785.

Source	Description
1	<p>Generation from thermal sources</p> <p>Combustion of fossil fuels in generation activities (CCGT, oil & gas and coal thermal plants). Including:</p> <ul style="list-style-type: none"> > CO₂ emissions (44.67 and 69.39 Mt in 2020 and 2019 respectively) > CH₄ emissions (GWP = 28), expressed in CO_{2eq} (0.02 and 0.04 MtCO_{2eq} in 2020 and 2019 respectively) > N₂O emissions (GWP = 265), expressed in CO_{2eq} (0.09 and 0.24 MtCO_{2eq} in 2020 and 2019 respectively)
2	<p>Other</p> <ul style="list-style-type: none"> > Fossil fuel combustion in auxiliary motors of nuclear and renewable plants (0.08 and 0.01 MtCO_{2eq} in 2020 and 2019 respectively) > NF₃ losses (GWP = 16,100), expressed in CO_{2eq} (0.01 and 0.01 ktCO_{2eq} in 2020 and 2019 respectively) for solar panel generation > SF₆ losses (GWP = 23,500), expressed in CO_{2eq} (0.02 and 0.03 MtCO_{2eq} in 2020 and 2019 respectively) for energy generation > Use of refrigerant gases in thermal and hydroelectric plants (0.01 MtCO_{2eq} in 2020 and marginal in 2019)
3	<p>SF₆ losses</p> <p>SF₆ losses (GWP= 23,500), expressed in CO_{2eq} (0.13 and 0.16 MtCO_{2eq} in 2020 and 2019 respectively) for energy distribution</p>
4	<p>Auxiliary motors</p> <p>Combustion of fossil fuels in auxiliary motors as part of energy distribution activities (0.02 and 0.01 MtCO_{2eq} in 2020 and 2019 respectively)</p>
5	<p>Offices</p> <p>Diesel and methane combustion for heating and canteens in offices, and use of refrigerant gases, including all properties of all Business Lines (Generation, Infrastructure & Networks, Market and Enel X) and Group offices (0.07 and 0.02 MtCO_{2eq} in 2020 and 2019 respectively)</p>
6	<p>Company fleet</p> <p>Diesel and gasoline combustion in company fleet vehicles (0.14 and 0.09 MtCO_{2eq} in 2020 and 2019 respectively)</p>
7	<p>Electricity purchased from the grid</p> <p>Consumption of electricity purchased from the grid for energy generation in thermal power plants and for pumping in hydroelectric plants (1.47 and 1.32 MtCO_{2eq} in 2020 and 2019 respectively). The figures shown are calculated using the location-based approach, while the market-based approach gives a figure of 2.26 and 1.99 MtCO_{2eq} for 2020 and 2019 respectively</p>
8	<p>Technical losses from the grid</p> <ul style="list-style-type: none"> > Energy dissipation due to transmission network losses (not owned) for the share of energy sold to the end customer (0.39 and 0.46 MtCO_{2eq} in 2020 and 2019 respectively). The figures shown are calculated using the location-based approach, while the market-based approach produces a figure of 0.58 and 0.71 for 2020 and 2019 respectively > Energy dissipation due to distribution network losses under Enel's operational control (3.17 and 3.36 MtCO_{2eq} in 2020 and 2019 respectively). The figures shown are calculated using the location-based approach, while the market-based approach produces a figure of 4.99 and 5.29 for 2020 and 2019 respectively
9	<p>Electricity purchased from the grid</p> <p>Consumption of electricity purchased from the grid for distribution activities in substations (0.15 MtCO_{2eq} in both 2020 and 2019). The figures shown are calculated using the location based approach, while the market based approach gives a figure of 0.24 MtCO_{2eq} for both 2020 and 2019</p>
10	<p>Electricity purchased from the grid</p> <p>Consumption of electricity purchased from the grid for civilian use (technological devices, lighting, heating) in the sites and commercial offices (Mercato and Enel X) (0.06 and 0.08 MtCO_{2eq} in 2020 and 2019 respectively). The figures shown are calculated using the location-based approach, while the market-based approach produces a figure of 0.05 and 0.07 for 2020 and 2019 respectively</p>
11	<p>Coal (upstream)</p> <p>Including:</p> <ul style="list-style-type: none"> > GHG Protocol Scope 3, category 3 (fuel and energy activities not included in Scope 1 and 2): fugitive emissions from coal mining used in coal-fired power plants (1.06 and 3.30 MtCO_{2eq} in 2020 and 2019 respectively) > GHG Protocol Scope 3, category 4 (transport and distribution upstream of power generation): transportation of coal by ship/air (0.05 and 0.45 MtCO_{2eq} in 2020 and 2019 respectively) and by rail (0.21 MtCO_{2eq} in 2019 only)
12	<p>Diesel & fuel oil (upstream)</p> <p>GHG Protocol Scope 3, category 4 (transport and distribution upstream of energy generation): transportation of diesel and fuel oil on wheels (0.011 and 0.01 MtCO_{2eq} in 2020 and 2019 respectively)</p>
13	<p>Transportation of other raw materials and waste (upstream)</p> <p>GHG Protocol Scope 3, category 4 (transport and distribution upstream of energy generation): transportation of other raw materials and waste on wheels linked to thermal and renewable generation (0.01 and 0.01 MtCO_{2eq} in 2020 and 2019 respectively)</p>
14	<p>Sale of electricity</p> <p>GHG Protocol Scope 3, category 11 (use of goods sold): emissions from the use of electricity sold to end customers (retail market) (25.04 and 28.98 MtCO_{2eq} in 2020 and 2019 respectively)</p>
15	<p>Sale of gas</p> <p>GHG Protocol Scope 3, category 11 (use of goods sold): emissions from the use of gas sold to end customers (retail market) (21.48 and 23.92 MtCO_{2eq} in 2020 and 2019 respectively)</p>





The roadmap and the targets for the reduction of greenhouse gas

In 2020, Enel's decarbonization roadmap has been updated to include the acceleration in the development of renewables and the reduction in thermal capacity defined in the

new 2021-2023 Strategic Plan and in the 2030 ambitions presented on the Capital Markets Day 2020. New goals in line with the Paris Agreement have been defined, in particular the percentage of reduction in Scope 1 emissions at 2030 was increased from 70% to 80% compared to 2017. This target is in line with a 1.5 °C pathway, as certified by SBTi.

The Net-Zero commitment

Furthermore, Enel, as a signatory to the Business Ambition for 1.5 °C campaign promoted by the United Nations and other institutions, is committed to fixing a long-term objective for reaching net-zero emissions along the value chain by 2050, 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
Short term (2023)	148 gCO_{2eq}/kWh in 2023	100% of Scope 1 GHG emissions ⁽¹⁾	 1.5 °C ⁽²⁾	<ul style="list-style-type: none"> > Gradual phase-out of 90% of coal-fired capacity during 2021-2023 (percentage weight of coal-fired capacity on consolidated capacity from 10.6% in 2020 to approximately 1% in 2023). > Investments equal to 16.8 billion euros to accelerate the development of renewable energy by installing 15.4 GW of new renewable capacity during 2021-2023 to reach 60 GW of renewable capacity by 2023.
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, certified by SBTi	<ul style="list-style-type: none"> > Acceleration of the abandonment of coal from 2030 until 2027 (gradual elimination of 16 GW of coal-fired capacity during the period 2017-2027). > Investments equal to 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).
	21.2 mil tCO_{2eq} (16% reduction compared to baseline year 2017)	100% of Scope 3 emissions related to the sale of natural gas in the end-user market (Scope 3, category "use of sold products")	 2 °C, certified by SBTi	<ul style="list-style-type: none"> > Promotion of the customer passage from gas to electricity (especially residential customers). > Optimization of the customer's gas portfolio (especially industrial customers).residential customers).
Long term (2050)	~0 gCO_{2eq}/kWh by 2050	100% of Scope 1 GHG emissions ⁽¹⁾⁽³⁾	 1.5 °C ⁽²⁾	<ul style="list-style-type: none"> > Goal of gradually eliminating thermal capacity and of reaching a 100% renewable energy mix.

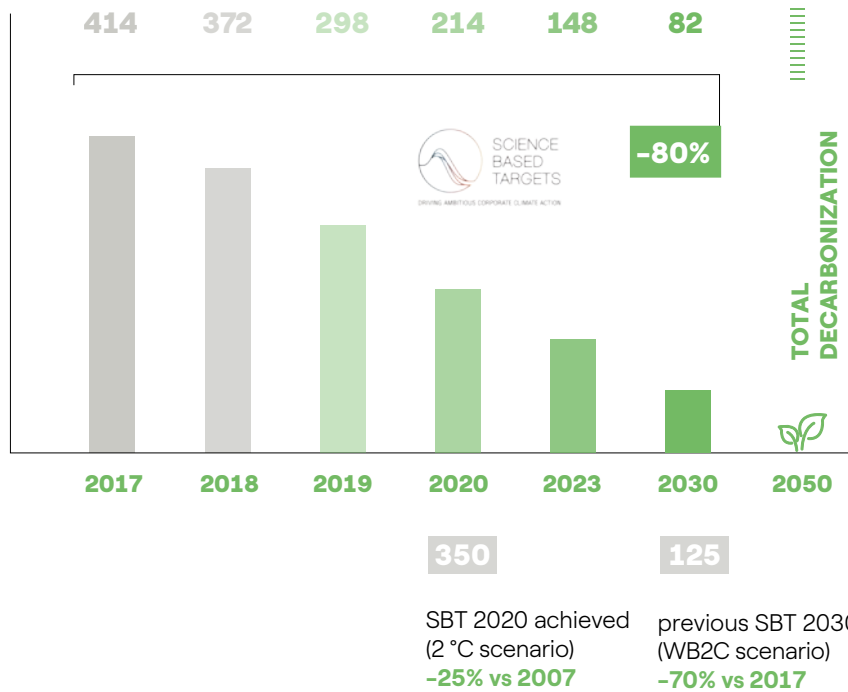
(1) Even if Enel constantly monitors Scope 2 emissions and is actively committed to their reduction, the Company has not set a specific reduction target, as they represent less than 4% of total Scope 1 and Scope 2 emissions in 2017 (baseline year of the target certified by SBTi). Therefore, they are 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).

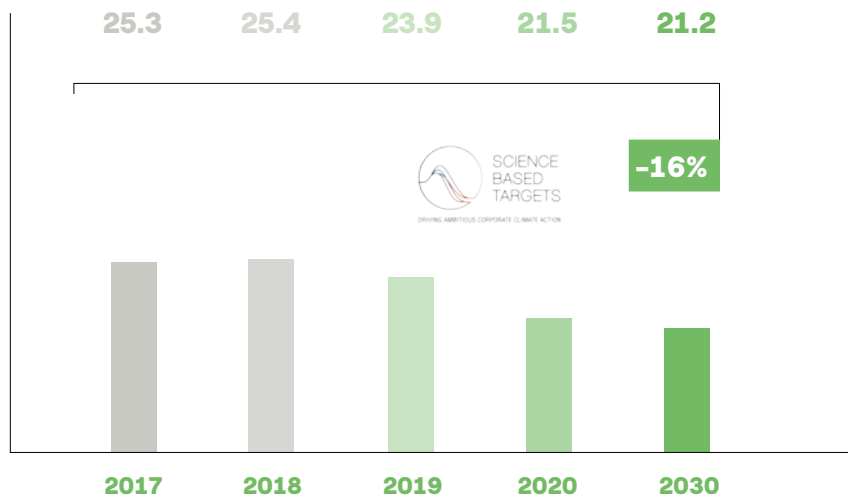
(3) With respect to the Group's net-zero commitment, which includes both direct and indirect emissions, precise targets will be defined for Scope 2 and Scope 3 emissions that are in line with the "Net Zero Standard" being developed by SBTi.

Decarbonization roadmap in line with the 1.5 °C pathway, SBTi certified

SCOPE 1¹ (gCO_{2eq}/kWh)



SCOPE 3 GAS RETAIL² (tCO_{2eq})



- (1) Includes all direct emissions (GHG Scope 1), 99% of which are due solely to energy generation, in line with the 1.5 °C pathway of the Science Based Targets initiative.
- (2) Includes all indirect emissions (GHG Scope 3 - Use of Sold Products) relating to gas sales in the retail market by 2030, in line with the 2 °C pathway of the Science Based Targets initiative.

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	2020	2019	2020-2019	%
Ordinary EBITDA for low-carbon products, services and technologies ^{(1) (2)}	bil euros	15.6	16.2	-0.6	-3.8
	% of tot EBITDA	87	91	-4	-
Capex for low-carbon products, services and technologies ⁽¹⁾	bil euros	9.6	9.1	0.5	4.9
	% of tot Capex	94	92	2	-
Revenues from coal plants	bil euros	1.6	2.8	-1.2	-42.0
	% of tot Revenues	2.5	3.5	-1.0	-
Revenues from thermal generation	bil euros	7.5	10.3	-2.8	-27.1
	% of tot Revenues	11.6	12.8	-1.2	-
Revenues from nuclear plants	bil euros	1.4	1.3	0.1	4.9
	% of tot Revenues	2.1	1.6	0.5	-
Debt ratio with sustainability criteria ⁽³⁾	%	33	22	11	-
CO ₂ reference price	euros	24.7	24.8	-0.1	-0.3

- (1) The "low-carbon products, services and technologies" category considers the Global Power Generation (excluding conventional generation), Infrastructure and Networks, Enel X and Market Business Lines (excluding the sale of gas).
 (2) The 2019 value was redefined to account for the fact that in Latin America and North America (Mexico), the values concerning large customers managed by the generation companies were reallocated to the Market Business Line.
 (3) The value was calculated considering the impact of the financial instruments, which include sustainability criteria for the entire gross debt.

In 2020, Enel's ordinary EBITDA associated with low-carbon emission technologies, services and solutions equals 15.6 billion euros, with a 3.9% reduction compared to 2019, mainly due to the impact of the Covid-19 emergency on the sale of energy to end users, which was partially compensated by greater generation of renewables. The Capex dedicated to low-carbon emission technologies, services and solutions has increased as compared to 2019, reaching 9.5 billion euros, equal to 94% of total Capex. Revenues from coal plants, following the Company's strategic decisions that have inspired a sustainable business model that pursues, among others, the objectives of fight-

ing climate change and decarbonization, are continuing to decrease. In particular, in 2020 revenues related to coal plants amounted to 1.6 billion euros (a 42.0% decrease as compared to 2019), equal to 2.5% of the Group's total revenues. Furthermore, total revenues from thermal generation (coal, oil & gas and CCGT) represent 11.6% of total revenues, equaling 7.5 billion euros (a 27.1% decrease as compared to 2019).

Enel's strategy of promoting a sustainable financial model has contributed to reaching 33% of the debt related to the sustainability objectives.

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Operational metrics

| 302-1 | EU1 | EU2 | EU3 | EU11 | EU30 |

Segmento della catena del valore dell'elettricità	Operational metric	UM	2020	2019	2020-2019	%
GENERATION	Net installed maximum capacity ⁽¹⁾	GW	84.0	84.3	-0.3	-0.4
	- of which renewables	%	53.6	50.0	3.6	-
	- of which thermoelectric	%	42.4	46.1	-3.7	-
	- of which nuclear	%	4.0	3.9	0.1	-
	Net generation ⁽²⁾	TWh	207.1	229.1	-22.0	-9.6
	- of which renewables	%	50.9	43.4	7.5	-
	- of which thermoelectric	%	36.6	45.1	-8.5	-
	- of which nuclear	%	12.5	11.5	1.0	-
	Additional indicators					
	Average thermoelectric park efficiency (%) ⁽³⁾	%	44.2	42.0	2.2	-
DISTRIBUTION	Total direct fuel consumption	Mtep	23.9	30.1	-6.2	-20.6
	Digitalization					
	End users with active smart meters ⁽⁴⁾	no.	44,292,794	43,821,596	471,198	1.1
RETAIL	Smart meters (coverage)	%	60	59	1	-
	Electrification, energy efficiency and digitalization					
	Charging points for electric mobility ⁽⁵⁾	.000	105	80	25	32.3
	Electric buses	.000	0.9	0.3	0.6	220
	Smart public lighting	mil	2.7	2.4	0.3	12
	New services					
	Demand response capacity	MW	6,038	6,297	-259	-4.1
	Storage capacity	MW	123	110	13	11.8

(1) Does not include managed capacity, equal to 3.6 GW in 2020 and 3.7 GW in 2019.

(2) Does not include generation from managed capacity, equal to 9.9 TWh in 2020 and 10.2 TWh in 2019.

(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) The 2019 data has been redefined following an update to the reporting method.

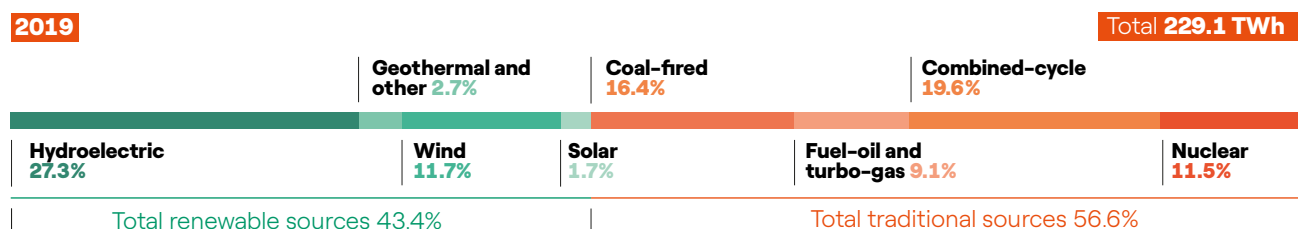
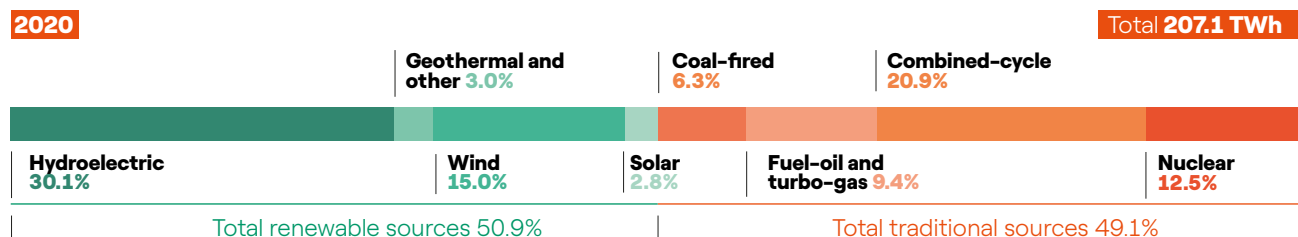
(5) Installed public and private charging stations. Including interoperability points, the value is equal to 186 thousand in 2020.

The **generation of electricity** in 2020 has a decrease of 22 TWh (-9.6%) compared to the value recorded in 2019. In particular, this decrease results from the reduced generation from thermal power (-27.5 TWh), mainly due to reduced coal-fired generation (-24.4 TWh), which was partially compensated by greater generation from renewable sources (+6.0 TWh).

The energy Enel produced in 2020 from zero emissions sources amounts to more than 63% of total consolidated generation (a significant increase in comparison to 2019, equal to 55%), whereas it is equal to 65% including the generation of capacity managed according to the Stewardship model (equal to 9.9 TWh in 2020).



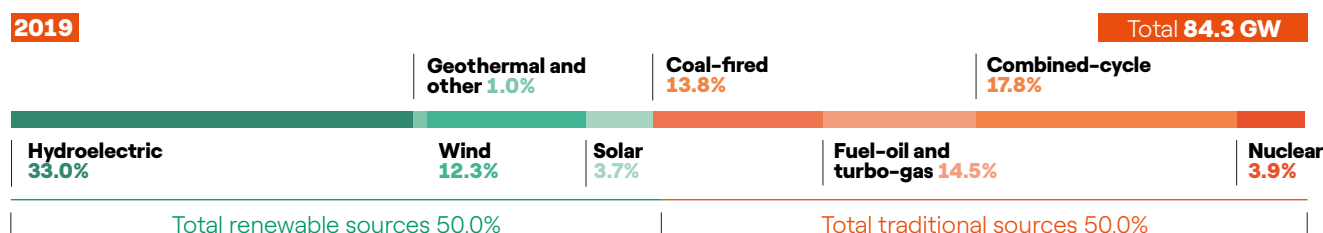
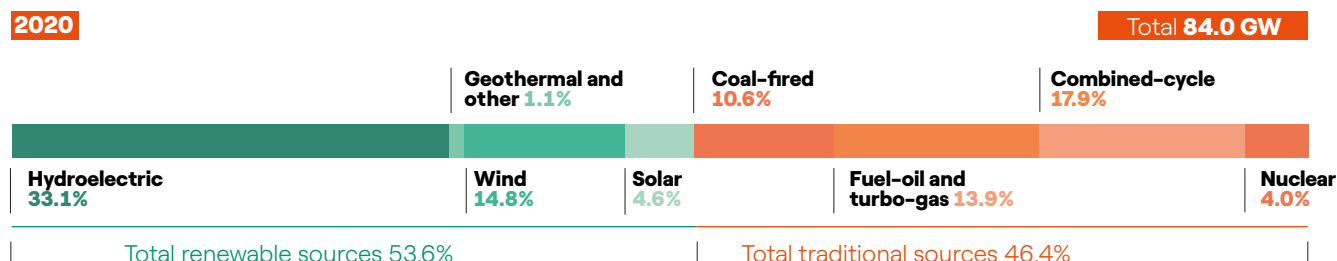
NET ELECTRICITY GENERATION BY SOURCE (%)



In order to contribute toward the decarbonization of its energy mix, in 2020 Enel **increased its renewable installed capacity by 2.9 GW, while reducing its coal-fired capacity by 2.8 GW**. As a result, consolidated installed capacity from zero emissions sources is approximately 58% (54% consid-

ering only renewable sources) of Enel's total consolidated installed capacity in 2020, whereas it is greater than 59% (56% considering only renewable sources) when including capacity managed according to the Stewardship model (equal to 3.6 GW in 2020).

NET EFFICIENT INSTALLED CAPACITY BY SOURCE (%)



In 2020, Enel played a fundamental role in developing new solutions for accelerating the process of energy transition through the development of 13 MW of storage capacity, corresponding to a growth of 12% in comparison to 2019, and maintaining the approximate 6 GW of demand response basically unvaried compared to 2019. The digitalization of the electricity grid, which has been identified as a key enabler able to positively influence cli-

mate 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 2020. In particular, in 2020 the total number of end users with active smart meters grew 1.1% as compared to the previous year, reaching 44.3 million in 2020.

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 105 thousand installed charging points at the end of 2020, a 32.3% increase in comparison to 2019.

Environmental metrics

| 303-3 |

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	2020	2019	2020-2019	%
Specific water withdrawal for total generation ⁽¹⁾	l/kWh	0.20	0.33	-0.13	-39.4
Water withdrawal in water stressed areas ⁽¹⁾⁽²⁾	%	23	25	2	-
Generation with water withdrawal in water stressed areas ⁽²⁾	%	11	8	3	-




(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 placed in water stressed areas those plants falling in areas classified by the WRI as "arid".

(2) Even if the indicator shows an increased percentage of withdrawals and consumption in water stressed areas, the absolute values show a decrease compared to the previous year, due to reduced generation of the relative plants.



Targets

The following table shows the main operational goals included in the 2021-2023 Strategic Plan and in the 2030 vision that reflect Enel's role in the fight against climate change along the entire electricity value chain, in addition to the goals of reducing greenhouse gas emissions as described in the previous section.

Segment of the electricity value chain	Target description	UM	2023	2030
GENERATION 	Net installed maximum capacity ⁽¹⁾	GW	>90	>170
	- of which renewables	%	65	>80
	- of which thermoelectric	%	31	-
	- of which nuclear	%	4	-
	Net generation ⁽²⁾	TWh	245	~400
	- of which renewables	%	65	~80
	- of which thermoelectric	%	24	-
	- of which nuclear	%	11	-
	New services			
	Generation with storage system (BESS)	TWh	-	20
	New hybrid renewable plants with storage (BESS)	%	-	30
	Generation of green hydrogen	.000 t	5	>90
	Installed green hydrogen capacity	GW	0.12	>2
	New hybrid renewable plants with hydrogen	%	-	8
DISTRIBUTION	Digitalization			
	Smart meter	mil	49	>90
	Smart meters (coverage)	%	64	100
 MARKET 	Electrification, energy efficiency and digitalization			
	Charging points for electric mobility	mil	0.78	>4
	Electric buses	.000	5.5	>10
	Smart public lighting	mil	3.4	>4
	New services			
	Demand response capacity	GW	10.6	20
	Storage capacity	MW	527	-

(1) Does not include managed capacity, equal to 7.6 GW in 2023.

(2) Does not include generation from managed capacity, equal to 20 TWh in 2023.

Furthermore, the following assumptions were defined:

- > EBITDA incidence for low-carbon products, services and technologies equal to 91% in 2023;
- > Capex incidence for low-carbon products, services and technologies on the total equal to approximately 90% in 2021 -2023;
- > incidence of sustainable financial mechanisms equal to approximately 48% in 2023 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 more information about Enel's environmental performance, refer to the "Environmental sustainability" chapter of the Sustainability Report 2020 (available on the site's Sustainability section: <https://www.enel.com/investors/biodiversity>).



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