Strategic risks

This section provides disclosure on the following strategic risks:

- Legislative and regulatory developments
- Macroeconomic and geopolitical trends
- Risks and strategic opportunities associated with climate change
- Competitive environment

Legislative and regulatory developments

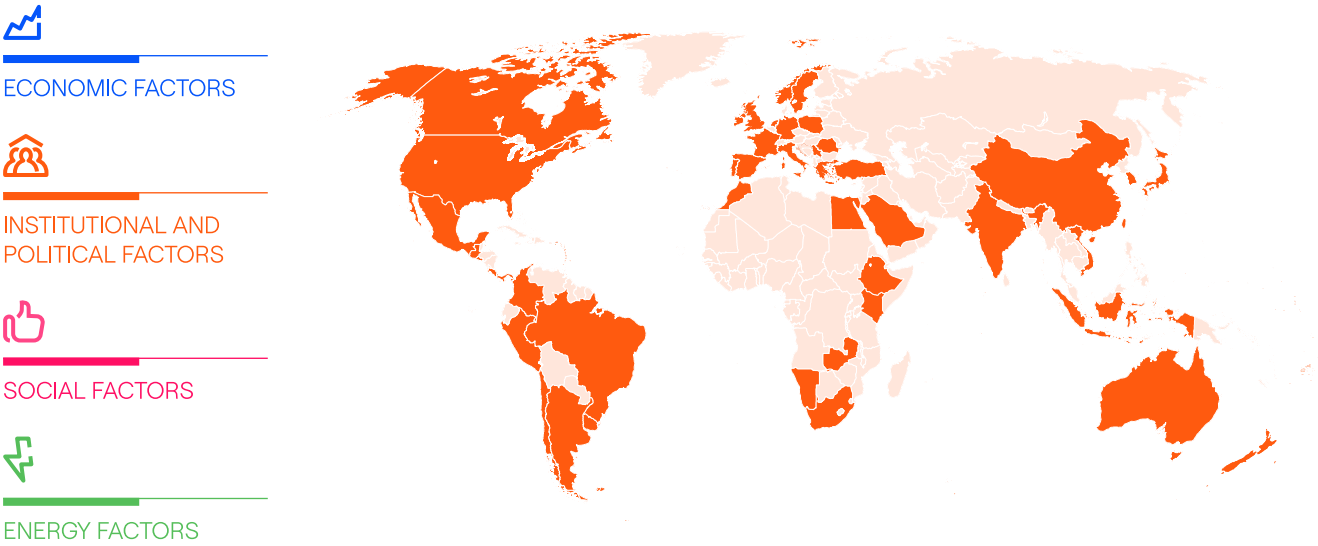
The Group operates in regulated markets and changes in the operating rules of the various systems, as well as the prescriptions and obligations characterizing them, impact the operations and performance of the Group.
Accordingly, Enel closely monitors legislative and regulatory developments, such as:

- periodic revisions of regulation in the distribution segment;
- the liberalization of electricity markets, with special attention being paid to the acceleration provided for in Italy and expected developments in South America;
- developments in capacity payment mechanisms in the generation segment;
- regulatory measures to shield users from impact of price developments.

In order to manage the risks associated with these developments, Enel has intensified its relationships with local governance and regulatory bodies, adopting a transparent, collaborative and proactive approach in addressing and eliminating sources of instability in the legislative and regulatory framework.

Macroeconomic and geopolitical trends

The considerable internationalization of the Group – which has a presence in many regions, including Europe, South America, North America and Africa – requires Enel to consider country risk, i.e. risks of a macroeconomic, financial, institutional or social nature and those specifically associated with the energy sector whose occurrence could have a significant adverse impact on both revenue flows and the value of corporate assets. Enel has adopted a quantitative Open Country Risk assessment model capable of monitoring the riskiness of the countries in which it operates.
The Open Country Risk model seeks to go beyond the more conventional definition of country risk, which focuses on the ability of a government to repay the debt it has issued, to offer a broader view of the risk factors that can impact a country. The model is divided into four risk components: economic, institutional and political, social, and energy factors.



Open Country Risk is a quantitative model that extends the more conventional definition of country risk used in the existing literature by providing a more complete analysis of the risks involved, incorporating economic, financial, political, climate and energy factors.

More specifically, the Open Country Risk model has the ambition to measure the economic resilience of individual countries, defined as the balance of their position with respect to the rest of the world, the effectiveness of internal policies, the vulnerabilities of their banking and corporate system that might portend systemic crises and their attractiveness in terms of economic growth, and finally a quantification of extreme climate events as a cause of stress at the environmental and economic level (economic factors). This is accompanied by an assessment of the robustness of the country's institutions and political context (institutional and political factors), an in-depth analysis of social phenomena, measuring the level of well-being, inclusion and social progress (social factors), and the effectiveness of the energy system and its positioning within the energy transition process, as these are all essential factors for evaluating the sustainability of investments in the medium to long term (energy factors).

Specifically, the introduction of extreme climate events within the Open Country Risk model makes it possible to develop a uniform assessment on the evolution of certain climate hazards at the country level on a global scale.
Finally, with regard to the analysis of the energy transition process, the Open Country Risk model also includes risk and opportunity analyses designed for forecasting purposes, quantifying the actions and the paths taken by the individual countries. For example, the model incorporates various factors reflecting the weight of renewable sources in energy generation, the electrification process and the environmental sustainability of the national energy system, which together are crucial characteristics for evaluating the country's potential growth and attractiveness in the medium to long term.

Risks and strategic opportunities associated with climate change

The identification and management of risks connected with climate change and actions to seize opportunities

As discussed in previous sections, the energy transition and climate change will impact Group activities in a variety of ways.
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 most recent climate-change reporting standards, we have adopted a framework that explicitly represents the main relationships between scenario variables and types of risk and opportunity for Group operations, specifying the strategic and operational approaches to managing them, comprising mitigation and adaptation measures.
There are two main macro-categories of risks/opportunities: those linked to the evolution of the transition scenarios and those connected with developments in physical variables. The framework has been created with a view to ensuring overall consistency, making it possible to analyze and evaluate the impact of transition phenomena (e.g., energy context) and physical phenomena (e.g., climate change) within solid alternative scenarios, constructed using a quantitative and modeling approach combined with ongoing dialogue with both internal stakeholders and external authorities.
The energy transition presents risks and opportunities connected both with changes in the regulatory and legal context and trends in technology development and competition, electrification and customer behavior and the consequent market developments.

Physical risks are divided in turn between acute (i.e. extreme events) and chronic, with the former linked to extremely intense meteorological conditions and the latter to more gradual but structural changes in climate conditions.
Extreme events expose the Group to the risk of prolonged unavailability of assets and infrastructure, the cost of restoring service, customer disruptions and so on. Chronic changes in climate conditions expose the Group to other risks or opportunities: for example, structural changes in temperature could cause changes in electricity demand and have an impact on output, while alterations in rainfall or wind conditions could impact the Group's business by increasing or decreasing potential electricity generation.
In general, adapting to the probable changes that will occur in the future also drives activities in the field of innovation and strategic positioning: new businesses and better products could be found to live sustainably in the changed context.

The Enel Group is contributing to realizing the transition and the opportunities that may arise. As discussed previously, our strategic choices, which are already strongly oriented towards the energy transition, with more than 90% of investments directed at improving a number of the Sustainable Development Goals, enable us to incorporate risk mitigation and opportunity maximization "by design", adopting a positioning that takes account of the medium- and long-term phenomena we have identified. The strategic choices are accompanied by the operating best practices adopted by the Group.

Framework of main risks and opportunities

Scenario phenomena	Time horizon	Risk & opportunity driver	Description	Management approach
Transition	Starting with short term (1-3 years)	Policy & Regulation	**Risk/opportunity:** policies on CO_2 prices and emissions, energy transition policies and financial instruments, revision of market design and permitting procedures, and resilience regulation.	The Group is minimizing its exposure to risks through progressive decarbonization and the focus of the business on renewables, grids and customers. The business model is designed to maximize the benefits of our integrated position in the core countries and leveraging partnership and stewardship activities, which enables us to 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 that explore ambitious national decarbonization scenarios in the various countries in which Enel operates.
Transition	Starting with medium term (2027-2034)	Market	**Risk/opportunity:** changes in the prices of commodities, raw materials and energy, evolution of energy mix, changes in retail consumption, changes in competitive environment.	The Group is maximizing opportunities by adopting a strategy founded on the energy transition, focusing on the electrification of energy consumption and the development of renewables and a geographical positioning in countries in which we have an integrated presence. Considering alternative transition scenarios, the Group assesses the impact of different commodity price trends, changes in the share of renewables in the generation mix and the electrification of final consumption.
Transition	Starting with medium term (2027-2034)	Product and Services	**Risk/opportunity:** increase/ decrease in margins and greater scope for investment as a consequence of the transition in terms of greater penetration of electrical mobility, distributed generation and new technologies for the direct and indirect electrification of final consumption.	The Group is maximizing opportunities thanks to its strong positioning in new businesses and "beyond commodity" services. In addition, considering alternative transition scenarios, the Group assesses the impact of different trends in the electrification of consumption.
	Starting with medium term (2027-2034)	Technology		The Group is maximizing opportunities thanks to its strong strategic positioning in new businesses and grids at the global level. With the penetration of direct and indirect electrification technologies, considering alternative scenarios, the Group assesses the potential opportunities for scaling existing and potential businesses and for the development of new solutions linked to digitalization and resilience of power grids.
Acute physical	Starting with short term (1-3 years)	Extreme events	**Risk:** especially extreme weather/climate events, which can damage assets and interrupt operations.	The Group adopts best practices to manage the restoration of service as quickly as possible. We also work to implement investments in resilience (e.g., the Italian case). With regard to risk assessment in insurance, the Group has a loss prevention program for property risk that also assesses the main exposures to natural events, supported by preventive maintenance activities and internal risk management policies. Looking forward, the assessments will also include the potential impacts of long-term trends in the most significant climate variables.
Chronic physical	Medium (2027-2034) and long term (2035-2050)	Market	**Risk/opportunity:** increase or decrease in electricity demand under influence of temperature, whose variations can impact the business. Increase or decrease in renewables output, which may be affected by structural changes in resource availability.	The Group's geographical and technological diversification means that the impact of changes (positive and negative) in a single variable is mitigated at the global level. In order to ensure that operations always take account of weather and climate phenomena, the Group adopts a range of practices such as, for example, weather forecasting, real-time monitoring of generation plants and long-term climate scenarios to identify any chronic changes in renewable source availability.

The framework illustrated above also highlights the relationships that link the physical and transition scenarios with the potential impact on the Group's business.
These effects can be assessed from the perspective of three time horizons: the short term (1-3 years), in which sensitivity analyses based on the Strategic Plan presented to investors in 2023 can be performed; the medium term (until 2027-2034), in which it is possible to assess the effects of the energy transition; and the long term (2035-2050), in which chronic structural changes in the climate should begin to emerge in addition to the most evident transition effects.
In order to facilitate the correct identification and management of the risks and opportunities associated with climate change, a Group policy was adopted in 2021 that describes the common guidelines for assessing these risks and opportunities. The "Climate change risks and opportunities" policy defines a harmonized approach for integrating issues relating to climate change and the energy transition into the Group's processes and activities, thus informing industrial and strategic choices to improve business resilience and long-term sustainable value creation, in line with the adaptation and mitigation strategy. The main steps considered in the policy are described below.

- Prioritization of phenomena and scenario analysis. These activities include the identification of physical and transition phenomena relevant to the Group and the consequent preparation of the scenarios to be considered, which are developed through the analysis and processing of data from internal and external sources. For the phenomena so identified, functions can be developed to connect the scenarios (for example, data on changes in renewable sources) to the operation of the business (for example, changes in expected potential output).
- Evaluation of impacts. This includes all the analyses and activities needed to quantify the effects at an operational, economic and financial level, consistent with the processes in which they are integrated (for example, design of new buildings, evaluation of operational performance, etc.).
- Operational and strategic actions. The information obtained from the previous activities is integrated into processes, informing the decisions of the Group and the business activities. Some examples of activities and processes that benefit from this are capital allocation, such as in the evaluation of investments in existing assets or new projects, the development of resilience plans, risk management and financing activities, engineering and business development.

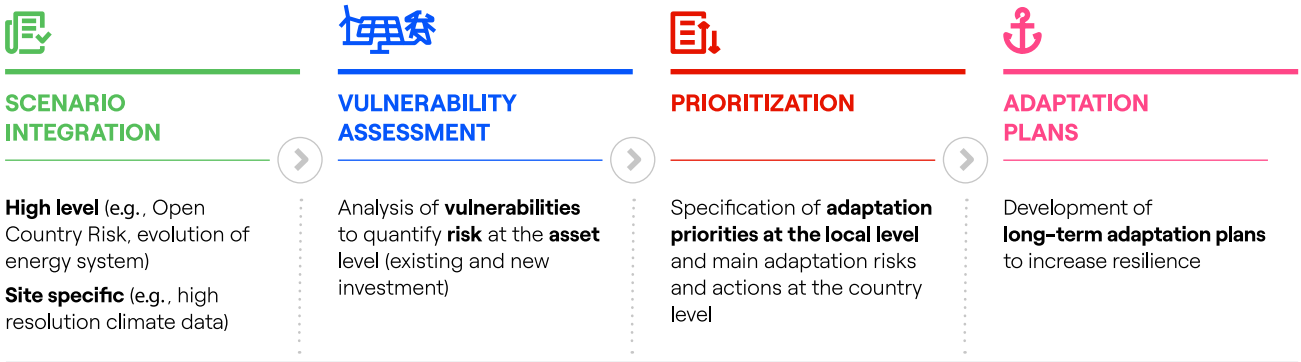
The main sources of risk and opportunity from the evolution of transition scenarios and physical variables, the best practices for the operational management of weather and climate phenomena, and the qualitative and quantitative impact assessments performed to date are discussed below. The above activities are performed on the foundation of an ongoing effort during the year to analyze, assess and manage the information produced. The process of disclosing information on the risks and opportunities connected with climate change will be gradual and incremental from year to year, in line with the recommendations of the most recent climate-change reporting standards.

Enel's resilience to the energy transition and climate change

The impacts of climate change, technological evolution, the evolution of policies and changes in macroeconomic fundamentals and geopolitical and market conditions make it every more important to develop resilient business strategies, i.e. strategies both capable of withstanding external shocks, and therefore of absorbing the causes of potential crises and thriving even when external conditions change, whether slowly or rapidly, and sufficiently flexible to identify new opportunities and transform them into actions. Jointly considering the factors associated with energy transition scenarios and the various climate change scenarios is therefore a prerequisite for long-term planning.
The set of transition and climatic scenarios plays a role in guiding strategic and industrial decisions, taking account, for example, of the future effects of temperature on electricity demand, the investments necessary to support the process of ever greater electrification and decarbonization, the evolution of the market environment and of consumer habits. Given that Enel's Strategic Plan concentrates more than 90% of investment on combatting climate change through the progressive expansion of generation from renewable sources and the development of infrastructure and services to guide energy systems and customers towards progressive electrification, aiming at the same time at significantly reducing the use of fossil fuels and increasing quality and efficiency, the Group's investments and activities delineate, by design, a long-term growth path that is in line with an energy transition consistent with the Paris Agreement.

The application of long-term climate scenarios enables the construction of adaptation plans for the Group's asset and business portfolio. Climate scenarios are developed starting with the identification of the most relevant physical phenomena for each business (such as heat waves, extreme rainfall, fire risk, etc.), to produce analyses that provide both high-level indicators (such as comparable

country risk indices) and high-resolution data, which make it possible to study physical impacts at the single-site level. The approach applies to both the existing portfolio and new investments. More details on new investments are described in the dedicated section "Inclusion of climate change effects in the assessment of new projects".
Asset vulnerability assessment makes it possible to identify priority actions to increase resilience.



Transition phenomena: repercussions on our business, risks and opportunities

With regard to the risks and opportunities associated with transition variables, we use 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. Priority is given to the most material phenomena. The main risks and opportunities identified within this framework are described below.

POLICY & REGULATION

Limits on emissions and carbon pricing

Laws and regulations that introduce more stringent emission limits by government action (non-market driven) and market-based mechanisms.

- **Opportunities**: command & control regulations and market-based mechanisms strengthening CO_2 price signals to foster investment in carbon-free technologies.
- **Risks**: lack of a coordinated approach among the various actors and policymakers involved and limited effectiveness of the policy instruments, with an impact on the speed of the trend towards electrification and decarbonization in the various sectors, compared with a decisive Group strategy focused on the energy transition.

Policies and regulation for accelerating the transition and energy security

Introduction of policies, regulatory frameworks and revision of market design features incentivizing the energy transition, consequently guiding the energy system towards the use of renewable 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.

- **Opportunities**: creation of a more favorable framework for investment in renewable energy, thanks also to the development of long-term markets (PPAs, CfDs) in electricity technologies and distribution grids in line with Group strategy.
- **Risks**: slow administrative authorization processes, and ineffective market design and regulatory frameworks in core countries can reduce asset profitability and limit growth opportunities.

Resilience and adaption regulation	To improve standards or introduce ad hoc mechanisms to incentivize investments in resilience in the context of the evolution of climate change. • **Opportunities**: benefits from investments that reduce the risk of impact on service quality, losses on corporate assets and service continuity for customers and communities. • **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 the energy transition	Development of policies and financial instruments that encourage the energy transition, which should be capable of supporting an investment framework and a long-term, credible and stable positioning of policymakers. 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 are not sufficient to drive an acceleration of energy transition, uncertainty or slowdown in the introduction of new instruments and rules due to the deterioration in the public finances.

MARKET

Commodity prices dynamics	Changes in market dynamics, such as those related to the volatility of commodity prices, can influence the behavior of operators, policymakers and customers. • **Opportunities**: acceleration of clean electrification as a solution to reduce energy costs and exposure to commodity volatility. Increased propensity of customers to switch from conventional fossil fuel technologies to efficient electric technologies. • **Risks**: "disorderly" energy transition caused by the introduction of potentially distortive measures.
Market dynamics	Propensity of final customers to adopt more sustainable technologies, thanks to greater awareness of the risks of climate change and greater regulatory pressure. • **Opportunities**: positive effects associated with the growth in electricity demand and the greater room for renewables, thanks in part to greater demand for long-term contracts (PPAs).

TECHNOLOGY

Penetration of new technologies supporting the transition	Gradual penetration of new technologies such as electric vehicles, storage, demand response and electrolyzers for the production of green hydrogen. Large-scale adoption of digital technologies to transform operating models and "platform" business models. • **Opportunities**: investments in developing technology solutions supporting the flexibility of the electrical system. Additional boost to renewables for the production of green hydrogen. • **Risks**: slowdowns and interruptions in the supply chain for raw materials and semiconductors could lead to delays in procurement and/or increase costs, potentially slowing the penetration of renewables, storage and electric vehicles.

Electrification of residential energy consumption and industrial processes	With the gradual electrification of end uses, the penetration of products with lower costs and a smaller impact in terms of local emissions and greater efficiency in the residential and industrial sectors will expand (for example, the use of heat pumps). • **Opportunities**: increase in electricity consumption against a background of declining energy consumption thanks to the greater efficiency of electricity. Greater opportunities to provide beyond-commodity services and the opportunity to reduce customers' energy costs and carbon footprint. Greater investments in grids to support the electrification of consumption. • **Risks**: additional competition in this market segment. Dependence on adequate development of electricity grids, which are essential to deliver increasing loads and service continuity.
Electric mobility	Use of more efficient and effective modes of transportation from the point of view of climate change, with a special focus on the development of electric mobility and charging infrastructure. • **Opportunities**: positive effects of the increase in electricity demand and greater margins connected with the penetration of electric transportation and associated beyond-commodity services. • **Risks**: additional competition in this market segment.

The Group has already taken strategic actions to mitigate potential risks and exploit the opportunities offered by the energy transition.
A strategy focused on decarbonization and the energy transition makes the Group resilient to the risks associated with the introduction of more ambitious policies for emissions reductions and maximizes opportunities for the development of renewable generation, infrastructure and enabling technologies, thanks in part to our geographical positioning in countries with an integrated presence.

To quantify the risks and opportunities engendered by the energy transition, the transition scenarios described in the section "Enel's energy transition scenarios" have been considered.
In the Enel Reference scenario, the progressive electrification of final energy consumption, especially in transport and the residential sector, leads to an increase in electricity consumption and therefore to a growth in electricity demand. This dynamic reduces the risk associated with the progressive increase in the share of renewables in the energy mix, which could trigger a reduction in the price of wholesale electricity. Furthermore, revisions of the market design in favor of long-term remuneration would have a positive impact on profitability.
The effects of the Slower Transition and Accelerated Transition on the variables that can most impact the business were then identified, in particular electricity demand influenced by developments in the electrification of consumption – and hence the penetration of electrical technologies – and the power generation mix.

With regard to the electrification of consumption, however, the Slower Transition scenario envisages lower penetration rates for the most efficient electrical technologies, in particular electric vehicles and heat pumps, producing a decrease in electricity demand compared with the Reference scenario, which is expected to have a limited impact on the commodity and beyond-commodity retail business. At the same time, the decline in electricity demand would leave less room for growth in renewables, with an impact on the generation business, partially offset by higher electricity prices than in a scenario with more renewables capacity.
The Accelerated Transition scenario assumes a more rapid reduction in the costs of green hydrogen production technologies compared with the Reference scenario. This translates into greater penetration for green hydrogen, with a consequent additive effect on national electricity demand and the installation of renewables capacity compared with the Reference scenario.
All of the scenarios, but especially the Reference and the Accelerated Transition scenarios, will entail a greater role for grids. In fact, we expect a significant increase in distributed generation and storage systems, the greater penetration of charging infrastructure and a growing rate of electrification of consumption. These developments will lead to the decentralization of power withdrawal/injection points, an increase in electricity demand and the average power required, and strong variability of energy flows, requiring dynamic and flexible management of the grid.

Upside (Accelerated Transition vs Reference)

Downside (Slower Transition vs Reference)

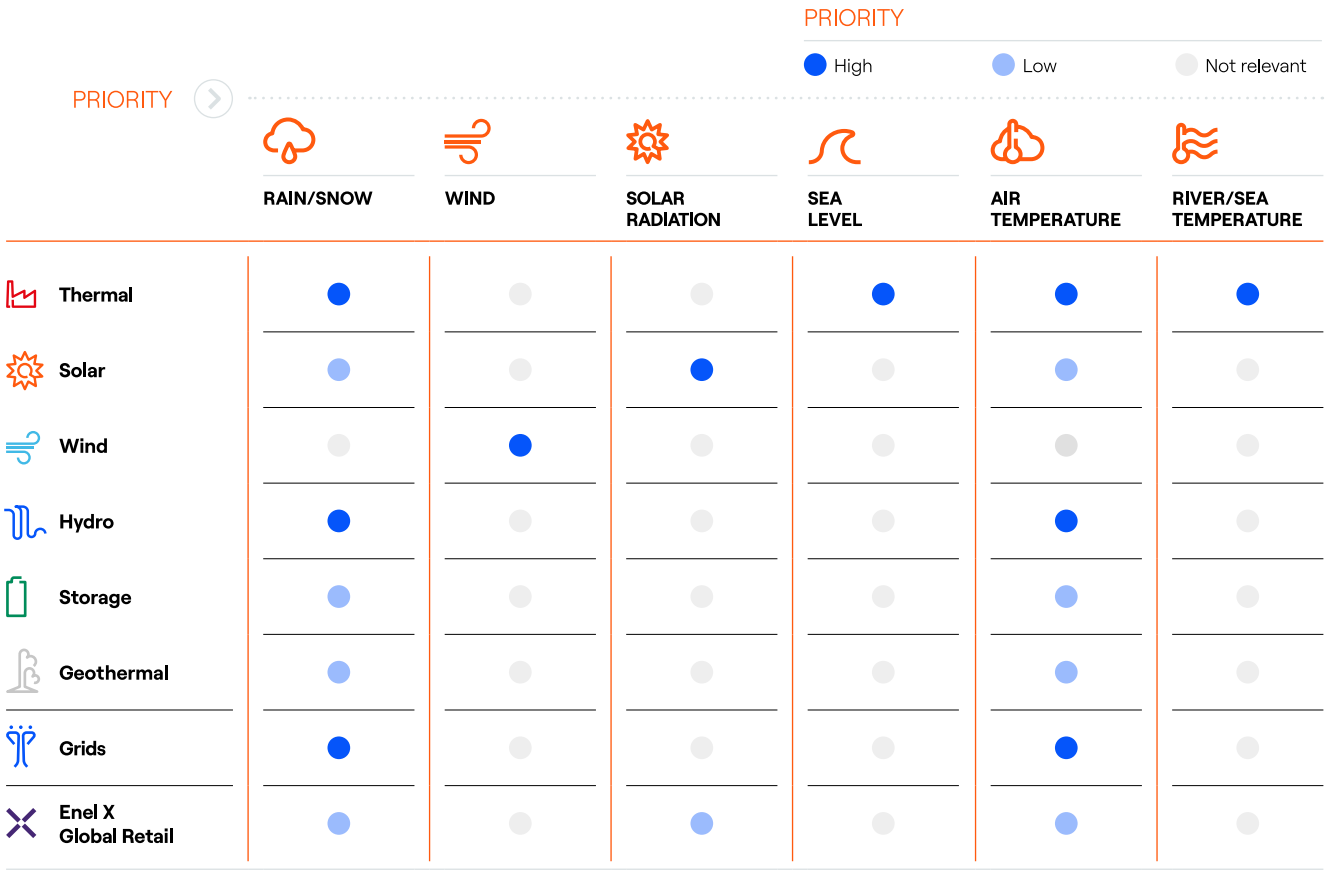
Scenario phenomena	Risk/ opportunity category	Description	Time horizon	Description of impact	GBL involved	Scope	Quantification – Impact type	Upside/ Downside	Quantification – range <€100 mil	€100–300 mil	>€300 mil	
Transition	Market	**Risk/opportunity**: more/less scope for investment in new renewables capacity and power price changes corresponding to different degrees of renewables penetration	Medium term(1)	Two alternative transition scenarios to the Reference scenario are considered, with respect to which the Group has evaluated the impact of different degrees of renewables penetration on the reference power price and additional capacity	Global Generation Global Enel X Retail	Enel Group	EBITDA/year	Upside		●		
								Downside		●		Adoption of measures to increase Customer Base in order to compensate for the negative impact on margins
Transition	Market	**Risk/opportunity**: smaller/ larger margins depending on degree of electrification of consumption	Medium term(1)	Considering two alternative transition scenarios to the Reference scenario, the Group has evaluated the effects of a change in average unit consumption and electricity demand as a result of greater/ lesser electrification of energy consumption	Global Enel X Retail Global Grids	Enel Group	EBITDA/year	Upside	●			
								Downside		●		Adoption of measures to increase Customer Base in order to compensate for the negative impact on margins
Transition	Product and Services	**Risk/opportunity**: larger/smaller margins and more/less scope for investment depending on the effects of the transition in terms of penetration of new technologies and electric transport	Medium term(1)	Considering two alternative transition scenarios to the Reference scenario, the Group has evaluated the effects of different trends in the electrification of transport and the electrification of domestic consumption	Global Enel X Retail	Enel Group	EBITDA/year	Upside	●			
								Downside	●			

(1) 2030 benchmark.

The Group therefore expects that in this scenario incremental investments will be needed to ensure connections and adequate levels of quality and resilience, encouraging the adoption of innovative operating models. These investments must be accompanied by consistent policy and regulatory scenarios to ensure adequate financial returns within the Enel Grids Business Line.

Chronic and acute physical phenomena: possible impacts on our business, risks and opportunities

Taking the scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) as our reference point, developments in the following physical variables and the associated operational and industrial impacts connected with potential risks and opportunities are assessed.



Chronic physical changes creating risks and opportunities

The climate scenarios developed with the International Centre for Theoretical Physics (ICTP) in Trieste show material changes beginning to emerge between 2030 and 2050. In practice, while significant meteorological variations have been recorded, it is still a challenge to establish in the short term whether certain phenomena are changing structurally, or whether the average benchmark values are already changing. Instead, it is established on the longer time horizon with probability intervals.

The main impacts of chronic physical changes are expected to be reflected in the following variables:

Variables impacted by chronic physical changes

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

As part of the assessment of the effects of long-term climate change, we have identified chronic events relevant to each technology and began the analysis of the related impacts. The following matrix identifies the chronic climate phenomena to which each of the Group's assets and technologies was found to be most vulnerable, differentiating by the priority of the phenomenon.
In particular, the Group works to effectively estimate the relationships between the changes in the physical variables reported in the matrix and the change in producibility relating to individual plants for the different technologies.

Analysis of the impact of chronic climate change on renewable generation

To calculate the impact of the chronic effects of climate change on the production of our assets, a series of ad hoc functions have been created for each renewable technology (wind, solar and hydroelectric) and plant, which associate, with each change in climatic variables (e.g., temperature, radiation, wind speed, rainfall), probable changes in terms of electrical producibility of the plants in our portfolio.
To calibrate these "link" functions, we started from the historical data of the weather-climate variables[33] and from the internal references of the observed producible energy of our plants. In this way, link functions have been obtained which respond to the specific characteristics of each renewable plant and technology.
It was therefore possible to study the chronic climate impacts for possible future projections of climate variables (RCP 2.6, 4.5 and 8.5 scenarios).
Together with the chronic phenomena, which involve average structural changes, it is necessary to study the typical volatility of the weather and therefore more short-term. Both the information derived from the variation ranges of the chronic trends projected by the climatic scenarios and the historical volatilities of the meteorological data were taken as input for the strategic planning, through analysis of the variations in electricity production (TWh) over the last 10 years.
All fluctuations, both weather and climatic, can lead to adjustments, since the production of the plants feeds the sourcing for the sale of energy to customers. In essence, reductions in terms of energy for renewable production can lead to imbalances on the sourcing side which can lead to the purchase of the missing volumes on the market to feed the commercial strategy. Conversely, greater renewable production leads to a possible reduction in the purchase of volumes on the market (or possibly higher sales).
Chronic structural changes in the recent trends of physical variables will manifest themselves gradually over long time scales. In order to obtain an indicative projection of the potential impacts, and include a possible acceleration of the manifestation of chronic effects, we can perform a stress test of the Business Plan with regard to the factors potentially influenced by the physical scenario, taking account of historical weather variability and the climate changes that are expected to emerge in the long term. The current Business Plan was constructed using the information contained in the median scenarios for chronic phenomena, so as to consider the possible effects of trends in climate variables. The following chart reports the findings of this analysis.

● Upside scenario ● Downside scenario

Scenario phenomena	Risk/ opportunity category	Description	Time horizon	Description of impact	GBL involved	Scope	Quantification - Impact type	Upside/ Downside	Quantification - range <€100 mil	€100-300 mil	>€300 mil
Chronic physical	Market	**Risk/ opportunity**: increased or decreased **electricity demand**	Medium/ long term	Electricity demand is also influenced by temperature, fluctuations in which can impact the business. Although structural changes should not emerge in the short term, sensitivity analyses of variations in electricity demand are used, in line with the climate scenarios analyzed	Global Generation Global Grids	Enel Group	EBITDA/year	Upside		●	
								Downside		●	
Chronic physical	Market	**Risk/ opportunity**: increase or decrease in **renewable generation**	Medium/ long term	Renewable generation is influenced by the availability of resources, fluctuations in which can impact the business. Although structural changes should not emerge in the short term, the sensitivity of the Group's results was assessed using sensitivity analyses considering historical meteorological volatility and variations in generation potential in the different climate scenarios	Global Generation	Enel Group	EBITDA/year	Upside		●	
								Downside		●	

(33) Historical data from ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale) e ERA5 data from ECMWF (European Centre for Medium-Range Weather Forecasts).

Acute physical changes creating risks and opportunities

With regard to acute physical phenomena (extreme events), the intensity and frequency of extreme physical phenomena can cause significant and unexpected physical damage to assets and generate negative externalities associated with the interruption of service.

Acute physical phenomena, in different cases such as windstorms, floods, heat waves, cold snaps, etc., are characterized by considerable intensity and a frequency of occurrence that, while not high in the short term, is clearly trending upwards in medium- and long-term climate scenarios.

Therefore, the Group is already managing the risk associated with extreme events in the short term. At the same time, the methodology is also being extended to longer time horizons (up to 2050) in accordance with the climate change scenarios that have been developed (RCP 8.5, 4.5 and 2.6).

In the case of the vulnerability of assets in the portfolio, a table of the main extreme events relevant to the different technologies was defined in collaboration with the Group's relevant global business lines, in order of priority, as was done for chronic phenomena.

PRIORITY

High Low Not relevant

PRIORITY	HEAT WAVES	FLOODING / HEAVY PRECIPITATION	HEAVY SNOW/ICING	HAIL	WINDSTORMS	WILDFIRES	LIGHTNING
Thermal	●	●	○	○	◐	◐	Under assessment
Solar	●	●	●	●	●	◐	Under assessment
Wind	●	◐	●	◐	●	◐	Under assessment
Hydro	◐	●	◐	○	◐	○	◐
Storage	○	◐	○	○	○	◐	○
Geothermal	○	○	○	○	○	◐	Under assessment
Grids	●	●	●	◐	●	●	●
Enel X Global Retail	●	◐	◐	◐	◐	◐	Under assessment

In order to understand the impacts on our business, this matrix was considered for conducting possible ad hoc analyses in order of priority.

Acute event risk assessment methodology

In order to quantify the risk deriving from extreme events, the Group uses a consolidated catastrophic risk analysis approach, which is adopted in the insurance sector and in the IPCC reports.[34] This methodology is used both in assessing risks to support industrial and strategic decision-making and to hedge the risk through its insurance business units and the captive insurance company Enel

(34) L. Wilson, "Industrial Safety and Risk Management", University of Alberta Press, Alberta, 2003.
T. Bernold, "Industrial Risk Management", Elsevier Science Ltd, Amsterdam, 1990.
H. Kumamoto and E.J. Henley, "Probabilistic Risk Assessment and Management for Engineers and Scientists", IEEE Press, 1996.
Nasim Uddin, Alfredo H.S. Ang (eds.), "Quantitative risk assessment (QRA) for natural hazards", ASCE, Germany, 2012.
UNISDR, "Global Assessment Report on Disaster Risk Reduction: Revealing Risk, Redefining Development", United Nations International Strategy for Disaster Reduction. Geneva, 2011.
IPCC, "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation - A Special Report of Working Groups I-II of the Intergovernmental Panel on Climate Change (IPCC)", Cambridge University Press, Cambridge, 2012.

Insurance NV. The Group manages the various phases of assessing the risks connected with natural disasters: from assessment and quantification to the corresponding insurance coverage to minimize impacts.

In all of these types of natural disasters, three independent factors can be identified, as briefly described below.

- The event probability (hazard), i.e. the theoretical frequency of the event over a specific time frame, which can also be expressed as the recurrence interval or return period. A hazard that has a specific geographical distribution is analyzed in the areas where the Group assets involved are located.

  For this purpose, the Group adopts the hazard map tool, which associates the estimated hazard for the different types of natural disasters with each geographical point. This information, organized in geo-referenced databases, is obtained from global reinsurance companies or developed on the basis of data from weather consulting firms or academic institutions.

- Vulnerability, which indicates in percentage terms how much value would be lost upon the occurrence of a given catastrophic event. In more specific terms, reference can be made to the damage to material assets, the impact on the continuity of electricity generation and/or distribution or the provision of electrical services to end users.

  The Group, especially in the case of damage to its assets, conducts and promotes specific vulnerability analyses for each technology in its portfolio, for example solar, wind and hydroelectric generation plants, transmission and distribution grids, primary and secondary substations, etc.

- Exposure, i.e. the set of economic values present in the Group's portfolio that could be materially impacted in the presence of catastrophic natural events. Again, the dimensions of the analyses are specific for the different production technologies, distribution assets and services to end users.

  The three factors described above (hazard, vulnerability and exposure) constitute the fundamental elements of any assessment of the risk associated with extreme events. In this sense, the Group, with respect to climate change scenarios, differentiates its risk analyses in accordance with the specificities of the various associated time horizons. The following table summarizes the scheme adopted for the assessment of the impacts deriving from acute physical phenomena.

Time horizon	Hazard	Vulnerability	Exposure
Short term	Hazard maps based on historical data and meteorological models	Vulnerability, being linked to the type of extreme event, to the specifics of the type of damage and to the technical requirements of the technology in question, is essentially independent of time horizons	Group values in the short term
Medium and long term	Hazard maps and specific studies for the different RCP climate scenarios of the IPCC		Group values in the long term

Managing the risk of extreme events in the short term

Over the short term (1-3 years) the Group, in addition to risk assessment and quantification, takes actions to reduce the impacts that the business may suffer following catastrophic extreme events. Two main types of action can be distinguished: obtaining effective insurance coverage and climate adaptation activities, preventing losses that could be caused by extreme events.

The general characteristics of these actions are illustrated below and, naturally, in the case of adaptation activities for damage prevention and mitigation, specific reference will be made to the Group's Generation and Enel Grids Global Business Lines.

Impact of acute physical events on the Group

The Enel Group has a well-diversified portfolio in terms of its generation technologies, geographical distribution and asset scale and, consequently, the portfolio's exposure to natural risks is also diversified. The Group implements various risk mitigation measures, which, as described below, include both insurance coverage and other management and operational arrangements to further lower the Company's risk profile.

The empirical evidence indicates negligible repercussions from these risks, as shown by the data for the last five years. Considering the most significant events, defined as events with a gross impact of more than €10 million, the cumulative gross impact amounts to about €130 million, which represents less than 0.06% of the value of the Group's insured assets as at 2023 (about €220 billion).

Acute Events Risk Index (AERI)

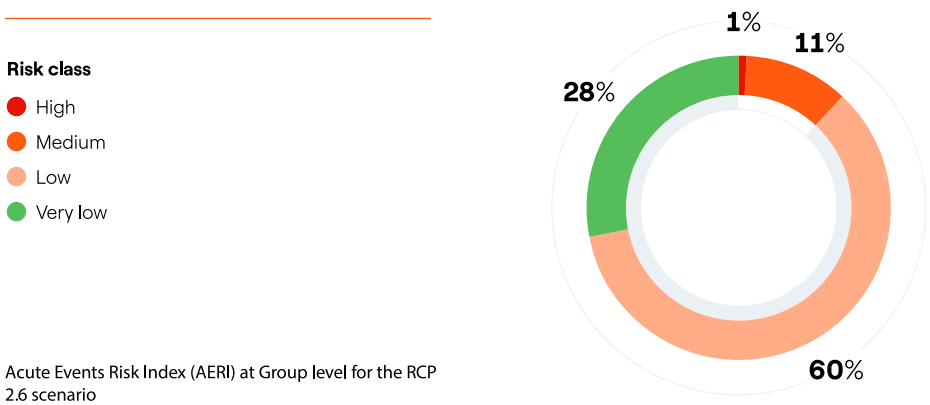
As reported in previous publications, the Group has developed a climate change index called Acute Events Risk Index (AERI)[35] to provide a high-level indication of changes in risk to renewable generation plants attributable to climate change for acute phenomena. In particular, the results show the share of installed capacity that, based on climate projections (RCP 2.6), will be located in areas characterized by a risk class that will vary depending on the expected increase in the hazard attributable to climate change in the 2030-2050 period compared with the historical period.

The AERI considers the Group's hydroelectric, solar and wind plants (Enel Green Power and Enel X) and in 2023 it was updated to include COD 2022 plants.[36] The index uses climate metrics and the approach followed for the preliminary screening, which will also be described later, in order to identify assets that will be exposed to more intense climate change effects. The objective of this evaluation is to define the priorities for the detailed analyses necessary for the identification of adaptation actions. This offers a summary representation of a screening performed for each plant and relevant physical phenomenon, against which priorities will be evaluated for more detailed analyses.

In particular, the relevant physical phenomena are considered for each plant, with respect to which the level of future climate change is calculated and a risk class (high, medium, low, very low) is assigned to each asset using an appropriate weighting system. At this point it is possible to aggregate the results and arrive at the Group AERI value broken down by each risk category.

As shown in the figure below, in the RCP 2.6 scenario, just over 1% of the total analyzed capacity of the Enel Group is located in areas classified as at high risk from climate change: for these plants, a detailed analysis is a priority in order to identify possible adaptation measures. By comparison, about 11% will be located in medium-risk areas. This means that the asset situation must be analyzed on a rolling basis to evaluate whether to proceed with more in-depth analyses using higher resolution data in order to determine the need for adaptation with respect to specific phenomena. Finally, the remaining installed capacity (88%) is associated with a low or very low risk: plants in these categories are not expected to be exposed to substantial climate change impacts in the RCP 2.6 scenario. For these, therefore, the criteria and actions already implemented remain adequate and any detailed studies will have a lower priority. The analyses will in any case be updated and refined on an ongoing basis to ensure monitoring of expected climate change effects on all plants.

BREAKDOWN OF GROUP CAPACITY (%) BY CLIMATE CHANGE RISK CATEGORY (RCP 2.6 SCENARIO)



Acute Events Risk Index (AERI) at Group level for the RCP 2.6 scenario

(35) The AERI evaluates the percentage of capacity at risk in the long term (2030-2050) compared with the historical period. It is thereby assumed that the Group's plants are resilient to phenomena observed in the recent past.
(36) Plants in Peru are not included in the estimation of the index. In 2023, the index calculation methodology was also refined to take better account of the intrinsic uncertainty of climate data.

The Group is also working to extend the analysis to the distribution grids and thus also obtain qualitative and quantitative information for Enel Grids on the climate risks associated with that business line's assets.

Insurance in the Enel Group

Each year, the Group develops global insurance programs for its businesses in the various countries in which it operates. The two main programs, in terms of coverage and volumes, are the following:

- the Property Program ("Property Damage and Business Interruption Insurance Program") for material damage to assets and the resulting business interruption. Accordingly, in addition to the costs of rebuilding assets (or parts thereof), the financial losses due to the stoppage of electricity generation and/or distribution are also covered, within the limits and conditions defined in the policies;
- the Liability Program ("General & Environmental Liability Insurance Program"), which insures against losses caused to third parties, including the impact that extreme events may have on the Group's assets and business.

Based on effective risk assessment, it is possible to specify appropriate limits and insurance conditions within the policies, and this also applies in the case of extreme natural events linked to climate change. In fact, in the latter case, the impacts on the business can be significant but, as has happened in the past in various locations around the world, the Group has demonstrated a high degree of resilience, thanks to the ample insurance coverage limits, thanks in part to the Group's solid reinsurance capabilities through the captive company.

The presence of this effective insurance coverage does not make the actions that the Group takes in the preventive maintenance of its generation and distribution assets any less important. In fact, while on the one hand the effects of these activities are immediately reflected in the mitigation of the impacts of extreme events, on the other hand they are a necessary prerequisite for optimizing risk financing and minimizing the cost of the Group's global insurance coverage programs, including the risk associated with catastrophic natural events. This adaptive strategy takes the form of management strategies and actions that go beyond insurance alone and change with the surrounding conditions. For example, the Group has managed to sterilize much of the strong upward trend in premiums on the insurance markets through changes to its risk retention policies for assets, as well as through internal risk transfer policies that reward the business lines that are most virtuous in terms of risk mitigation. From this perspective, the method and the information extracted from the ex-post analysis of events play a crucial role in determining the processes and practices to be deployed in mitigating such events in the future.

Climate change adaptation in the Enel Group

The Group implements climate change adaptation solutions using an overall approach that, as described in the "Climate change strategy" section, assesses potential impacts in order to appropriately calibrate the necessary adaptation measures to enhance our ability to respond to adverse events (Response Management) and to enhance the resilience of the business (Resiliency Measures), thereby reducing the risk of future negative impacts of adverse events. Furthermore, the skills and tools developed to analyze the effects of climate change can be used to create value, for example through the conception of new business options that offer solutions to facilitate the adaptation of communities and all stakeholders.

The adaptation solutions can involve both policy actions and best practices implemented in the short term, and long-term decisions.

For new investments, in line with the general approach, it is also possible to take early action in the design and construction phase to reduce the impact of climate risks "by design", for example by taking account in the design stage of climate scenarios and asset vulnerability analyses for specific phenomena in order to implement resilient solutions.

The following table provides a high-level summary of the type of actions that Enel implements to effectively manage adverse events and to increase resilience to weather phenomena and their evolution under the impetus of climate change. In the following sections, certain activities are described in greater detail.

Business lines	A. Resiliency Measures – Enhancing asset resilience	B. Response Management – Adverse event management
Enel Green Power and Thermal Generation 	**Existing assets** 1. Guidelines for hydraulic risk assessment and design 2. Lessons-learned feedback from O&M to E&C and BD **New construction** In addition to actions for existing assets: 1. Climate change risk assessments (CCRA) included in environmental impact documentation (pilot)	**Existing assets** 1. Critical incident and event management 2. Site-specific emergency management plans and procedures 3. Specific tools for forecasting imminent extreme events and weather alerts
Enel Grids 	**Existing assets and new construction** 1. Guidelines for developing grid resilience enhancement plans (e.g., the "Network Resilience Enhancement Plan" of e-distribuzione) 2. Strategies and guidelines for Risk Prevention on distribution grid 3. Resilience Plan for Italy and Network Strength in Colombia	**Existing assets** 1. Strategies and guidelines for Readiness, Response and Recovery actions for the distribution grid 2. Global guidelines for emergency and critical event management 3. Risk prevention and preparation measures for fires involving electrical installations (lines, transformers, etc.)
Enel X Global Retail 	**Existing assets** 1. Preliminary analysis of the impacts of medium/long-term climate change	**Existing assets** 1. Enel X Critical Event Management

Enel has also completed a project involving the construction of a catalog of practical intervention actions intended to enhance the resilience of assets and their ability to respond to possible climate change effects.
The catalog includes targeted actions for each of the relevant events reported in the matrices of relevant phenomena (see previous sections), for each geographical area of interest of the Group, differentiated by the different asset technologies adopted in these areas.
The catalog of possible adaptation actions, which is maintained and updated on a cyclical basis in response to emerging needs and the refinement of the analyses conducted prior to their development, comprises more than 100 actions, including:

- weather alerting (which includes the use of various tools to monitor and manage assets and natural resources);
- automation (for example, implementation on medium-voltage grids to reduce the impact of faults on customers as measured in terms of SAIDI and SAIFI);
- structural reinforcement across the entire asset base with a special focus on critical components;
- continuous staff training;
- maintenance of vegetation and care of the environment immediately surrounding assets.

The catalog is an important collection of possible adaptation options that can be used to generate estimates of cost and risk avoided for applications at specific sites. This information makes it possible to select the most appropriate action on the basis of a cost-benefit analysis that takes account of the expected risks in each specific situation.

How Enel ensures the resilience of generation

With regard to generation, over time the Group has implemented targeted measures at specific sites and established ad hoc management activities and processes.
Measures implemented for specific sites in recent years include:

- improving cooling water management systems for certain plants in order to counter the problems caused by the decline in water levels on rivers, such as the Po River 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 reassessments for hydro plants of flood scenarios using numerical simulations. The scenarios developed are managed with mitigation actions and interventions for civil works, dams and water inlets.

The Group adopts a series of best practices to manage the impact of weather events on power generation, such as:

Group practices for managing weather events in generation operations

Main areas:

Maintenance

O&M Operation

Dams and Hydraulic Infrastructure Safety

Critical Event Management

- 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, land surveys (including with the use of drones), monitoring any vulnerabilities through digital GISs (Geographic Information Systems) and satellite measurements.
- Advanced monitoring of over 100,000 parameters (with over 160 million historical measurements) for dams and hydroelectric works.
- Real-time remote monitoring of generation plants.
- Safe rooms in plants in areas exposed to tornadoes and hurricanes, such as the wind farms in Oklahoma in the United States.
- Adoption of specific guidelines for performing hydrological and hydraulic studies from the earliest development stages, aimed at assessing the risks inside plants and in the areas outside plants, with application in the design phase of drainage and mitigation systems in compliance with the principle of hydraulic invariance.
- Verification of potential climate trends for the main project parameters in order to take them into account in the sizing of systems for relevant projects (for example, assessments of the temperature of the coolant source in order to ensure greater flexibility in cooling in new CCGTs) and civil engineering works (for example, rainfall assessments for designs of drainage systems at solar plants).
- Estimation of extreme wind speeds using updated databases containing the logs and historical trajectories of hurricanes and tropical storms, enabling the selection of the wind turbine technology best suited to the emerging conditions.

In addition, in order to ensure rapid response to adverse events, the Group has adopted specific emergency management procedures with protocols for real-time communication and management of all activities to restore operations rapidly and standard checklists for damage assessment and the safe return to service for all plants as rapidly as possible. One solution to minimize the impacts of climate phenomena is represented by the lessons-learned feedback process, which is implemented by the technical functions. It is governed by the existing operating model and influences future projects.

Analyzing future climate impacts to identify adaptation needs

In the Generation Business Line we mapped globally relevant phenomena (see earlier matrix) to perform analyses of acute and chronic climate risks in order to estimate the medium/long-term impact on the Group's generation plants.
In particular, the analysis of acute events was performed in two phases, involving:

- preliminary screening of the hazard and exposure for all hydro, wind and solar plants with the aim of classifying the existing plant portfolio, considering specific vulnerabilities and identifying plants at greater risk in order to conduct a more detailed analysis;
- detailed analysis of plants with a greater risk priority, enabling the future identification of possible adaptation actions and measures to prevent damage from acute events and output losses.

The detailed analysis was conducted to take account of the possible increase in the frequency and intensity of extreme events and consequently identify assets exposed to the related phenomenon.

The detailed analysis of the pilot sites identified a small number of assets at high risk in the long term for the entire set of phenomena considered.

Heavy rainfall

- An analysis was performed for a significant number of plants, which highlighted a high correlation between the geo-morphology of the site and the impact of the phenomenon on the asset, confirming the need for a specific site analysis, especially for those assets most exposed to the phenomenon

involved (the most exposed technologies included photovoltaics while the greatest exposures at the geographical level were found in Latin America).
- More extensive studies made it possible to identify possible structural adaptation measures to lower the level of hydraulic risk to an acceptable threshold. Their implementation will require a cost-benefit analysis. Such structural adaptation interventions can, for example, involve the construction of hydraulic mitigation works (mainly embankments, riverbed reprofiling, adaptation of drainage channels, expansion and lamination tanks) or raising of the components at risk with earth moving works or increasing the length of the support structures in the case of photovoltaic panels.

Heat waves
- The impact of heat waves on photovoltaic systems was studied in depth. This critical event is characterized by the persistence of high temperatures for multiple days with no rainfall.
- Despite the increase in the frequency and intensity of this climate phenomenon, no significant impacts were registered on this asset, with just a reduction in the performance of the inverter due to derating in certain periods of the year in specific locations.

Windstorms
- With regard to windstorm risk, despite scenarios showing an increase in such events, the impact analysis shows a high level of resilience by design, especially for the wind farms analyzed.
- The implementation of any adaptation measures will require specific site assessments based on a cost-benefit analysis, considering the limited impact of the phenomenon on Enel Green Power plants.

Wildfires
- With regard to fire risk, the business line conducted a study to identify the areas at greatest risk. In order to prevent fires outright and/or reduce response times, a number of possible adaptation measures were identified for adoption in the design or operational phase of plants. These include additional removal of vegetation around the project area, the creation of firebreaks, additional coordination with local authorities on how to respond in the event of a fire.

The methodologies developed will be progressively refined with the aim of also applying them to the design and development of new Enel Green Power plants. The application of these assessments in the design stage will help further boost resilience, forecasting the risks and preserving the value of new projects.
These studies will make it possible to quantify the need for adaptation in terms of Risk Prevention (for example, the adoption of an adaptive design) and Event Management and management of residual risk.

Grid resilience lies at the heart of Enel's strategy
The Enel Grids Business Line, following the Group policies mentioned above ("Climate change risks and opportunities"), has issued a specific policy (Climate Change Risk Assessment) that provides general criteria, methodological tools and requirements for identifying, analyzing and assessing climate change risks in respect of the assets managed and the activities conducted, in order to monitor the risk and the actions to be implemented to mitigate its impacts.

In the Enel Grids Business Line the Enel Group has adopted an approach in recent years called "4R" to cope with extreme climate events. A specific policy (which seeks to implement an innovative strategy to ensure the resilience of the distribution grid) has been developed to define the measures to be taken both in preparation for an emergency within the network and for the prompt restoration of service once climate events have caused damage to assets and/or outages. The 4R strategy is divided into four phases:

1. Risk prevention: this includes actions that make it possible to reduce the probability of losing network components because of an event and/or to minimize its effects, i.e. interventions aimed both at increasing the robustness of the infrastructure and maintenance interventions. The choice of technical solutions to enhance resilience is guided by a catalogue that identifies the most appropriate response for each climate event and geographical area.
2. Readiness: this includes all measures aimed at increasing the speed with which a potentially critical event can be identified, ensuring coordination with Civil Protection authorities and local institutions and preparing the necessary resources once a grid disruption has occurred.
3. Response: this represents the phase in which the operational capacity to cope with an emergency upon the occurrence of an extreme event is assessed. It is directly related to the ability to mobilize operational resources in the field and the capacity to remotely restore power supply through resilient backup systems.

4. Recovery: this is the last phase, in which the goal is to return the grid to ordinary operating conditions as soon as possible in cases where an extreme weather event has caused service interruptions despite the increased resilience measures taken previously.

Following this approach, the business line has prepared various policies for specific actions to address the various aspects and risks associated with climate change. In particular:

Guidelines for Readiness Response and Recovery actions during emergencies	This policy covers the last three phases of the 4R approach, indicating guidelines and measures to improve preparation strategies, mitigate the impact of total blackouts and, finally, restore service to as many customers as possible in the shortest time possible.
Guideline for Network Resilience Enhancement Plan	This policy seeks to identify the most impactful extraordinary climate events on the network, to evaluate the specific KPIs of the AS-IS network and to improve them based on proposed interventions in order to be able to evaluate the order of priority. In this manner, actions are selected that, when implemented, will minimize the impact on the grid of particularly critical extreme events in a given area/region. The policy therefore covers the first two phases of the 4R approach, suggesting measures regarding risk prevention and readiness. In Italy, this policy has been translated into the Resilience Plan that e-distribuzione has prepared each year since 2017, which represents an addendum to the Development Plan for ad hoc investments over a 3-year time horizon to reduce the impact of extreme events in certain critical areas, namely heat waves, icing and windstorms (with the associated risk of falling trees). In 2017-2021, some €672 million were invested and about €262 million will be invested in the following three-year period, as specified in the addendum to the 2022-2024 Plan. To address these risks, investments include the targeted replacement of uninsulated lines with insulated conductors, the undergrounding of cables in some cases or solutions involving routes to restore power that are not vulnerable to the above phenomena. As in Italy, similar issues are being explored in other countries, both in Europe and South America, in order to prepare an ad hoc investment planning process to enhance the resilience of grids to extreme events, taking due account of the distinctive characteristics of each territory.
Measures for Risk Prevention and Preparation in case of wildfires affecting the electrical installations	This policy is dedicated to addressing the risk of wildfires, outlining an integrated approach to emergency management measures applied in the case of forest fires, whether they are of external origin or, in rare cases, are caused by the grid itself and could potentially threaten Enel plant. The document provides guidelines to be implemented in the various territories involved to identify areas/plant at risk, define specific prevention measures (e.g., evaluation of specific maintenance plans and any upgrades) and, in the event of a fire, manage the emergency optimally in order to limit its impact and restore service as soon as possible.
Support actions	These include the implementation of systems for weather forecasting, monitoring the status of the grid and evaluating the impact of critical climate phenomena on the grid, the preparation of operational plans and the organization of specific exercises. Particularly important in this regard are advance agreements for the mobilization of extraordinary resources to respond to emergencies, comprising both internal personnel and contractors. For example, in Italy, in addition to having installed and placed in operation three experimental stations to observe and investigate ice formation on MV lines, IoT sensor trials were launched to monitor on above-ground lines in areas that are highly exposed to snow and wind (Project Newman).

Enel Grids is making a significant contribution to the drafting of the initial industry publications on the importance of resilience and adaptation to climate change and possible actions, including the report issued by Eurelectric-EPRI[37] in December 2022 entitled "The Coming Storm: building electricity resilience to extreme weather".

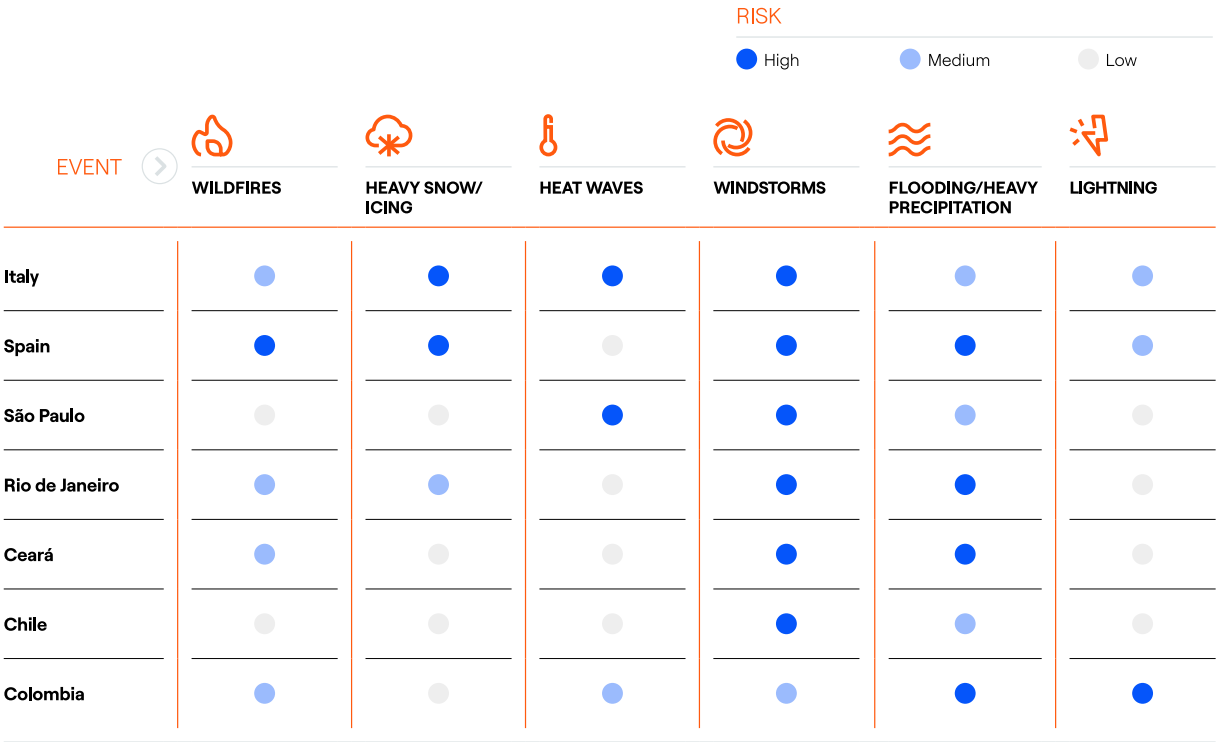
With a view to ensuring continuous improvement, Enel Grids also performs scouting activities, directly contact-

(37) EPRI: Electric Power Research Institute.

ing startups and industry experts or using challenges proposed by the Enel Group's innovation function, in order to identify innovative technological solutions to support climate impact and adaptation measures to increase the resilience of the grid.

Analyzing future climate impacts to identify adaptation measures

Beginning with the mapping of key phenomena at the global level, Enel Grids monitors trends in the most critical threats in the various countries in which the Group operates in order to estimate their future impact on the grid in the medium and long term. To do this, it is first necessary to perform a preliminary assessment of the impacts on the grid (including associated failures) of the extreme weather events that have occurred in the past. The mapping that associates the most critical acute events to each core country is shown in the figure below. This enables the identification of priority analyses to identify any adaptation measures.



Starting from these assessments, detailed studies were then conducted for specific phenomena and geographical areas. Here are some examples.

Heavy rainfall/windstorms

- An analysis was conducted to investigate the phenomenon of explosive cyclogenesis (the product of a combination of intense wind and rain) in Spain, with projections of events up to 2050, evaluating the possible future impacts on grid assets. The initial findings suggest that the trend is substantially in line with the historical observed record, with the exception of the coastal areas of Catalonia, where a possible intensification of events is expected.
- Studies were also carried out in Colombia on the impact of rainfall in both the Bogotá and Cundinamarca areas, evaluating the possible scenarios up to 2050. The in-depth studies carried out show a substantial persistence over time of the negative effects associated with this phenomenon. On the basis of these initial results, the planned response measures mainly regard waterproofing secondary substations in urban areas, to avert flood risk, and strengthening aerial infrastructures to limit the consequences of the direct impact of rainfall.
- An initial analysis was conducted in Chile on the impact of windstorms in the Santiago de Chile concession area. The findings of the scenario analysis through 2050 show the phenomenon

persisting. This is being kept under observation for future planning of work to reinforce the overhead network by replacing bare conductors with cable.

Heat waves

- Heat waves in Italy were investigated further on the basis of the initial results in 2020. This critical event is characterized by the persistence of high temperatures over a period of several days in correspondence with the absence of precipitation which, by hindering the dissipation of heat from underground cables, causes an anomalous increase in the risk of multiple failures on grids, especially in urban areas and in summer tourist locales. The analyses performed have highlighted how this climate phenomenon will intensify in the coming decades by 10-40% by 2050 (depending on the climate scenario), requiring adequate adaptation actions as already laid out in the expanding commitment envisaged both by the Resilience Plan indicated above and from participation in the tender of the NRRP (National Recovery and Resilience Plan) for the funds (€0.3 billion) allocated for increasing the resilience of infrastructure.

Wildfires

- With regard to fire risk, the business line, consistent with the above policy, is preparing an update of the policy on fire risk prevention, applying an index that evaluates the fire risk of areas based on topological and environmental characteristics (FWI: Fire Weather Index) as a support tool, with projections of scenarios to 2050 on developments in the phenomenon. So far, each country has conducted a study to identify the areas at greatest risk of forest fires. Today, the study also draws on GIS (Geographic Information System) mapping for more precise identification of grids in different environments (protected natural areas, forests, habitats). This makes it possible to adopt even more effective construction or maintenance design measures to prevent fire risk.

Adaptation activities – Enel X Global Retail

In order to address extreme climate events, the Enel X Global Retail Business Line has continued to work on estimating the potential impacts of physical phenomena in order to develop actions to adapt to climate change, identifying the risks and opportunities for priority countries/assets.

An impact analysis was carried out for owned assets, which represent a minority share of the total asset portfolio. At the same time, potential risks and possible resilience solutions are being assessed for business-to-business and business-to-government customers.

The work on adaptation focused on defining a methodology for assessing the vulnerability of Enel X Global Retail assets by extending the studies developed by Enel Green Power and Thermal Generation and Enel Grids for the assessment and management of acute meteorological events for solar (Distributed Energy PV), storage and public lighting.

For solar, a preliminary climate risk screening was carried out in the countries/assets identified as priorities for material acute events such as extreme winds, heavy rainfall/floods and fire risk. For this technology, the work performed, considering both the results obtained thanks to the preliminary screening and more detailed analyses, does not currently reveal any critical issues related to climate change. The analysis will be extended to sites where new construction is planned. For storage, the work carried out so far finds no critical issues associated with acute climatic events. Finally, the acute phenomena relevant to the public lighting segment are under study.

Introduction of nature-based solutions to Enel X Global Retail's resilience actions

Attention to the effects of climate change is implemented by Enel X Global Retail in both extra-urban and urban spaces with an approach to the challenges of sustainable development inspired and supported by nature. Enel X Global Retail is thus committed to promoting an approach in which the services and products of its commercial offer are integrated with nature-based solutions (NBS), i.e. techniques and design approaches that use nature and processes inspired by it to provide integrated services that enhance the resilience of cities to climate change, mitigating the microclimate, air quality and generally improving the quality of life. To promote NBS, Enel X Global Retail has developed the Enel X "NBS Biodiversity Handbook" and the Enel X "Urban Biodiversity Scoring Model", which make it possible to integrate NBS solutions in business solutions and assess their positive impact on the climate, natural resources and the human experience.
The introduction of NBS solutions in the Enel X Global Retail product range was rolled out with an extensive set of recommended scientific indicators (published in the Enel X "NBS Handbook for Urban Context") to measure positive impacts and support customers in the adoption of these practices recognized internationally as effective tools for adaptation to acute climate phenomena. In practice, NBS can be integrated with Enel X Global Retail's technological solutions to provide ecocompatible services to support nature. These solutions also contribute to the adaptation and mitigation of climate change and to the improvement of the quality of life in urban centers.

Inclusion of climate change effects in the assessment of new projects

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

- preliminary studies: in this phase, climate data can serve as a preliminary screening tool, with the analysis of specific climate phenomena, such as those discussed previously in the analysis of physical scenarios, incorporated into indicators such as the Acute Event Risk Index, and synthetic indicators such as the Climate Risk Index, integrated into the Open Country Risk model. These data provide a preliminary measure of the most relevant phenomena in an area among those identified as being relevant for each technology;
- estimation of expected output: the climate scenarios will be progressively integrated to enable the evaluation of how climate change will modify the availability of renewable sources at the specific site. The section "Analysis of the impact of chronic climate change on renewable generation" describes the approach as applied to the entire generation portfolio;
- environmental impact analysis: the Group has begun to integrate a Climate Change Risk Assessment into project documentation. This contains a representation of the main physical phenomena and their expected change in the area;
- resilient design: as noted, the development of resilient assets by design is a key climate change adaptation activity. The Group is working to progressively consider analyses based on climate data, such as the increase in the frequency and intensity of acute events. The latter will integrate existing analyses based on historical data already in use, in order to increase the resilience of future assets, including all necessary adaptation actions over the useful life of a project.

Competitive environment

The analysis of the competitive environment is one of the material elements of the analysis of the context in which the Group operates and defines its business ambitions.
The risks associated with evolutionary developments in the market are also mitigated by the periodic monitoring of the comparative performance at an industrial and financial level of our competitors.
The assessment activity is carried out using a framework designed to (i) identify the most relevant competitors and peers; (ii) analyze their results, the main business drivers, strategic and industrial objectives; and (iii) understand their current and prospective positioning.
The process of identifying our peer group is periodically updated to ensure timely collection of information, KPIs and reporting elements useful for the Group's positioning and strategic planning activities.
In particular, a comparative assessment of the strategic and industrial plans of competitors is particularly relevant for assessing potential risks deriving from possible changes in the competitive context and, above all, providing economic and industrial benchmarks to help improve the Group's performance.