

# Identification of impact factors and dependencies on nature and biodiversity

The identification of potential **impact** factors on nature and biodiversity is fundamental for Enel in order to define the most effective strategies to avoid, minimize, remedy or compensate for the associated effects, in line with the provisions of the Mitigation Hierarchy included in the Group's environmental policy. Similarly, the identification of **dependencies** on natural capital and biodiversity enables us to identify the most appropriate strategies to reduce the risks to the Company that may derive from these dependencies.

The activity referred primarily to direct activities that are

not yet inclusive of the entire value chain, and involved all of the Group's main technologies, from electricity generation from renewable sources and combined-cycle gas turbine power plants, to electricity distribution systems. The following were not considered in the analysis: coal-fired thermoelectric generation, which is already the subject of a medium-term phase-out program, in line with the decarbonization strategy adopted by the Group, and infrastructure linked to energy services, such as charging stations for electric cars, as they operate in generally urbanized habitats.

## Impact factors

The main **impact factors** (or pressures) that may be exerted on nature are summarized in the following categories, inspired by those identified by the **Science Based Targets Network (SBTN)**, and which have been adopted as the starting point for analyzing actions implemented to mitigate the associated risks:

1. use and modification of ecosystems (terrestrial, fresh water, marine);
2. use of resources (mainly water withdrawal);
3. climate change (GHG emissions);

4. pollution (emissions, discharge, waste);
5. disturbances (noise, vibration, artificial lighting) and introduction of invasive species.

The table shows the results of the preliminary materiality analysis of impact factors conducted at Group level for the various technologies. In this case, the evaluation approach indicated by the SBTN and the TNFD proposal was used, and the ENCORE tool was used.<sup>(5)</sup> The scores were internally reviewed based on the specific construction and operating solutions adopted by the Group.

Impact factors by technology	Hydroelectric	Solar PV	Wind	CCGT	Networks
1.1 Use of terrestrial ecosystems	VM	M	M	M	M
1.2 Use of fresh water ecosystems	VM			NM	
2. Water withdrawal	M	NM		VM	
3. Climate-changing gas emissions (GHG)	NM			M	M
4.1 Air pollutants (non-GHG)	NM			NM	
4.2 Water pollutants	M			NM	
4.3 Soil pollutants		NM	M	NM	M
4.4 Solid waste	M			NM	M
5. Disturbance factors and invasive species	NM	M	M	NM	M

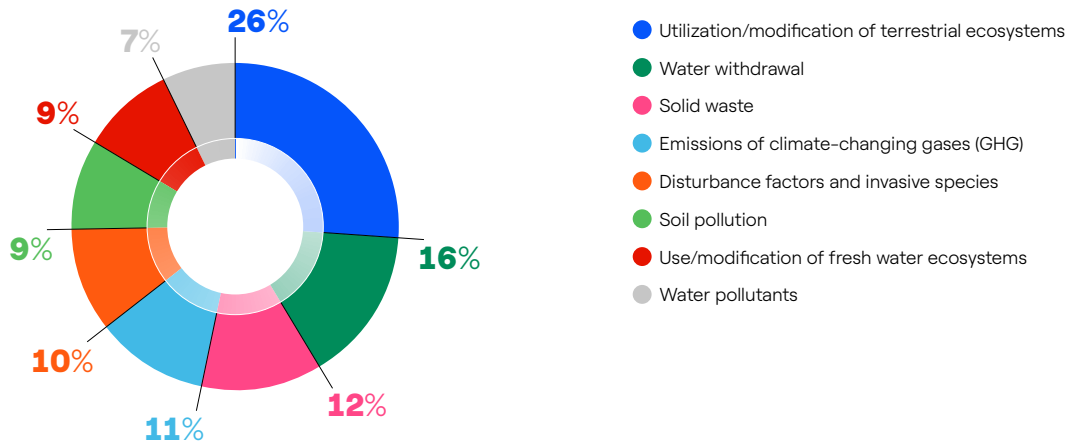
VM Very Material   
 M Material   
 NM Non Material   
  not applicable

(5) ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure), tool developed by the Natural Capital Finance Alliance (<https://encore.naturalcapital.finance/en/about>).

Considering only the material impact factors with respect to the various technologies, each weighted according to

its share of generation at Group level,<sup>(6)</sup> the distribution of priorities shown in the figure is obtained.

### Impact factors prioritized by materiality for the different technologies, weighted according to their share of power generation



The overall analysis therefore shows that, considering the average weighting of the various technologies, the main impacts on the external environment are associated with

**the use/modification of terrestrial ecosystems** and with **water withdrawal**.

## Dependencies

**Dependencies** found to be material based on the criteria indicated by SBTN for the various technologies adopted by Enel are attributable, in relation to the main direct activities, to ecosystem services necessary for the operation of plants and infrastructures, as summarized below:

1. regulation of the climate and climatic events on which the operation of all assets depends;
2. protection from floods and extreme environmental events, which are one of the primary causes of failure and unavailability of renewables plants (photovoltaic and wind) and distribution facilities;
3. use of water in production cycles, mainly in thermoelectric power generation;
4. soil stabilization and erosion control, important for hydroelectric reservoirs, renewables plants (photovoltaic and wind), and network infrastructure;

**5.** conservation of the water cycle, which enables the operation of hydroelectric power plants.

With regard to the upstream supply chain, the main dependency refers only to the "Use of raw materials (mineral and non-mineral) for the construction and operation of plants".

The results of the preliminary materiality analysis of ecosystem dependencies conducted at Group level for the various technologies are shown in the following table. Also in this case, the evaluation criteria indicated by the SBTN and by the TNFD proposal and the guidelines provided by the ENCORE tool were used. The scores were reviewed internally based on the construction and operating solutions adopted by Enel.

(6) Networks were given a conventional weighting of 25%, being the average of the values associated with the various generation technologies, also by virtue of its transversal function with respect to them.

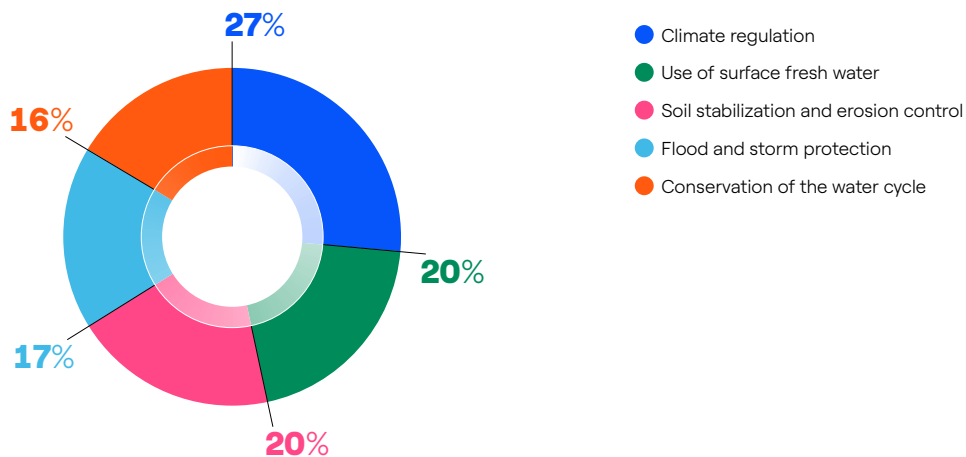
Dependencies by technology	Hydroelectric	Solar PV	Wind	CCGT	Networks
1. Climate regulation	VM	VM	VM	NM	VM
2. Flood and storm protection	M	M	M	NM	VM
3. Use of surface fresh water	VM	NM		VM	
4. Soil stabilization and erosion control	VM	M	M	NM	M
5. Conservation of the water cycle	VM			M	
6. Water resource quality	NM			NM	
7. Filtration of pollutants	NM			NM	
8. Bioremediation	NM				
9. Use of groundwater	NM			NM	

VM Very Material   
 M Material   
 NM Non Material   
 ● Not applicable

Considering only the material dependencies with respect to the various technologies, each weighted according to

its share of generation at Group level,<sup>(7)</sup> the distribution of priorities shown in figure is obtained.

Dependencies on ecosystem services prioritized by materiality for the different technologies, weighted according to their share of power generation



The overall analysis therefore shows that, considering the average weighting of the various technologies, the main dependencies for the Company are associated with **climate regulation** and **the use of surface fresh water**. Regarding these results, Enel's decarbonization strategy,

which is focused on the phase-out of fossil fuels and the growth of renewables, particularly wind and solar technologies, reduces impact on the ecosystem services on which we depend, such as water resources.

(7) The Networks were given a conventional weighting of 25%, being the average of the values associated with the various generation technologies, also by virtue of its transversal function with respect to them.