Leveraging the *Roadmap to Nature Positive: Foundations for the energy system*

Examples from the energy industry:
→ *Enel*

WBCSD — World Business Council for Sustainable Development

enel

→ Enel, Pollinator-friendly habitats at Enel's Aurora solar farm in the US
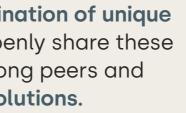
General introduction

WBCSD and its member companies have now launched the *Roadmap to Nature Positive: Examples from the energy industry*, five cases of industry businesses that are leveraging WBCSD's Roadmap to Nature Positive: Foundations for the energy system.

The *Roadmap Foundations* provides companies with a comprehensive step-by-step "how to" guide to taking credible, impactful nature action. The Roadmap follows the underlying logic of key frameworks including the **High-level Business Actions on Nature** to Assess, Commit, Transform and Disclose (ACT-D), the **Taskforce on Nature-related Financial Disclosure** (TNFD) **LEAP approach** (Locate, Evaluate, Assess, and Prepare) and the **Science Based Targets Network** (SBTN) **AR3T Action Framework**.
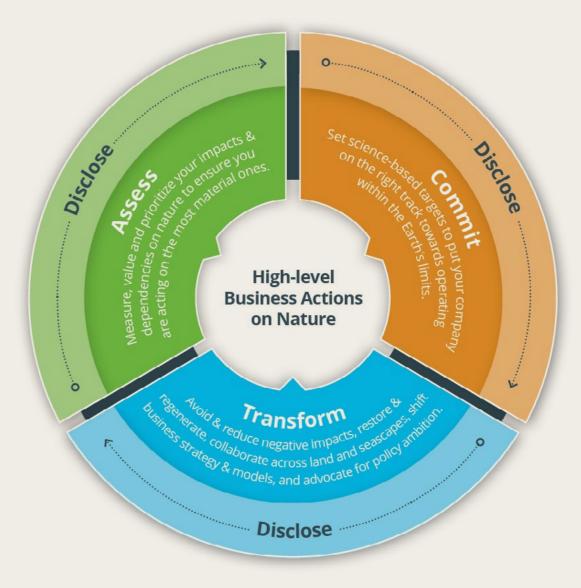
These **Roadmap examples** serve as **practical illustrations** that **bridge** the gap between theory and industry practice. Building upon the Roadmap Foundations, they aim to show how companies within the energy system are navigating their journey to nature action, offering valuable insights into the **particular and specific challenges** that businesses encounter on this journey.

As each organization confronts a **combination of unique and shared hurdles**, it is important to openly share these experiences to **foster collaboration** among peers and **support the development of effective solutions.**

*It is by making these learnings available, and collaborating with peers to develop solutions, that we can reach the **speed and scale needed** to achieve the shared goal of halting and reversing nature loss by 2030.*

Figure 1: ACT-D framework, SBTN

Source: Business for Nature (2022). High-level Business Actions on Nature

Energy member:
Enel

Sector: Energy, renewables

Value chain: Electricity production, trading, distribution and retail, natural gas retail, development and retail of new services and products to increase consumption's electrification

Company strategy & approach to nature positive

Protecting natural capital and combating climate change are strategic factors for Enel's businesses. The company integrates them into the planning, development and operation of its activities. As an energy company, Enel's operations depend on and, at the same time, impact natural resources. For this reason, **the Group integrates nature-related risk and opportunity assessments into its decision-making processes and governance** and defines specific targets for reducing impacts on nature, restoring habitats and sharing the benefits of ecosystem services with the communities it interacts with.

Biodiversity protection is one of the strategic objectives of Enel's environmental policy. The Group manages this through a specific policy adopted in 2015 and renewed in 2023 following the Kunming-Montreal Global Biodiversity Framework (KMGBF). The policy defines guidance for the Group's biodiversity protection initiatives.

Enel has renewed its commitment to biodiversity by including new concrete actions and time-bound targets. As part of this commitment, the company aims to achieve **no net loss of biodiversity** for new infrastructure by 2030, commencing its adoption on selected projects in areas of high biodiversity importance in 2025. To achieve this goal, Enel will apply the principles of the Cross Sector Biodiversity Initiative's mitigation hierarchy to avoid, minimize, restore and – as a last resort – offset impacts on natural habitats and priority species.

Additionally, Enel is committed to conserving forests. In cases where deforestation is unavoidable, the company will reforest areas of equivalent value in line with the principle of **"No Net Deforestation"** for new infrastructure by 2030. Finally, Enel will not build new generation infrastructure ("No Go" commitment) in areas designated as UNESCO Natural World Heritage Sites.

Nature frameworks & guidelines the company is considering in its nature strategy

→ **Measuring and reporting according to the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) Standards;**

→ **Preparing to report according to the European Commission's Corporate Sustainability Reporting Directive (CSRD, EU DIR 2022/2464);**

→ **Following the evaluation approach proposed by SBTN AR3T and TNFD LEAP and aligning with the European Sustainability Reporting Standards (ESRS) indications;**

→ **Taking into consideration the Kunming-Montreal Global Biodiversity Framework (GBF);**

→ **Consulting and applying, where necessary and applicable, WBCSD's *Roadmap to Nature Positive: Foundations for the energy system*.**

Energy member: Enel
continued

Rationale for the company to design and implement a nature strategy

→ **Incorporating the nature journey** into Enel's strategy is imperative to address evolving requests from investors, meet consumer demand and align with the requirements of nature-related frameworks and regulations.

→ Enel is **committed to managing and reporting all environmental, social and governance (ESG)** aspects. This is a direct answer to investors' need for transparency on the use of natural assets, which has increased significantly over the last few years, and to the growing assessment efforts of rating agencies. Investors and rating agencies provide an important opportunity for Enel to improve its nature performance.

→ The growing and renewed global attention on nature and its ecosystems has spurred the formation of new coalitions and multilateral initiatives. These efforts aim to catalyze the establishment of restoration targets and the crafting of more ambitious policies dedicated to the preservation of biodiversity.

*Enel initiated a comprehensive gap analysis to assess the **CSRD** disclosure requirements. As part of its analysis and aligning to its No Net Loss of Biodiversity commitment previously set, Enel is determining how best to incorporate the nature journey in a wider Group strategy.*
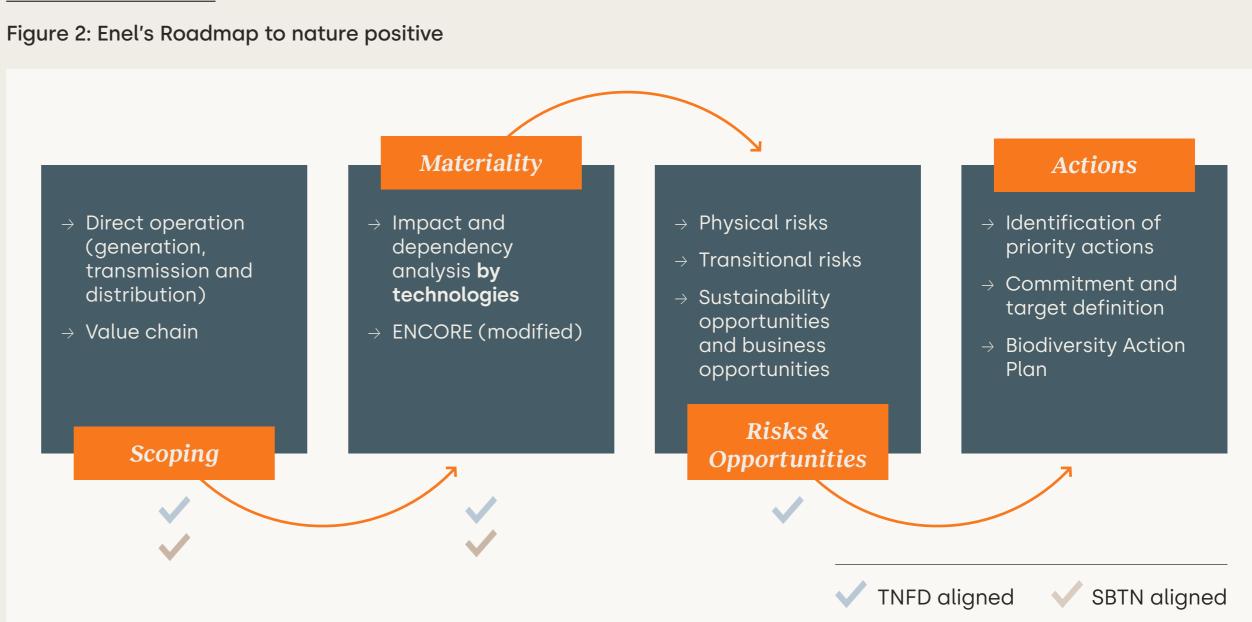

→ Source: Getty Images

Stage 1 in the Roadmap to Nature Positive – Assess

This section describes how the company assesses dependencies, impacts, risks and opportunities (DIROs).

Enel has adopted a combined approach for the evaluation of its nature DIROs. While the "No Net Loss" and "No Go" principles apply to the siting and construction of new plants, **a baseline DIRO analysis has focused on the company's direct activities in operating assets.** In parallel, the company has undertaken a **screening of material impacts in upstream activities,** analyzing procurement plans for commodities and equipment in the supply chain.

Scope & locate

Enel structures the identification of potential impact factors of its activities on nature in operating assets, as well as their operational dependencies on ecosystem services, by referring to the Group's main technologies (from electricity generation to distribution). It then follows the evaluation approach proposed by SBTN AR3T and TNFD LEAP, aligning with ESRS indications. It uses the ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) tool for the preliminary assessment and refines the ratings internally on the basis of the specific construction and operating solutions adopted by Enel. The company uses these to produce preliminary impact and dependency materiality matrices for relevant technologies.

Figure 2: Enel's Roadmap to nature positive

Subsequently, Enel starts an **asset prioritization activity** in its core countries for both the identification of hotspot sites for local in-depth assessment and the execution of an impact/risk analysis at the corporate level, broken down by technology and core country. According to TNFD **LEAP** recommendations for location ranking, **the company** **selects site-specific key performance indicators (KPIs) for local biodiversity, habitat type and condition, and the intensity of the impact drivers in each operating asset.** For this scope, it carries out the **geolocation of assets** for each relevant technology through an ad hoc geographical information system (GIS).

Energy member: Enel
continued

Impacts & dependencies

The main **material impact** factors on nature resulting from the analysis refer to the use and modification of terrestrial and aquatic ecosystems, freshwater withdrawals, contribution to climate change (GHG emissions), pollution pressure from air emissions, wastewater discharges and waste management and, to a lesser extent, disturbance effects (mainly fauna displacement due to barrier, collision, electrocution, fire, noise and artificial lighting). The company has already set some improvement targets for most of the impacts above.

The main **material dependencies** enabling the operation of the company's plants and infrastructure are climate change, water source availability, soil stabilization and erosion control and, to a lesser extent, protection from extreme environmental events.

In the context of the **upstream supply chain analysis,** the company has assessed the investment requirements spanning from 2023 to 2030. Subsequently, it identified the principal constituent materials, encompassing both raw and processed/embedded materials, along with their respective quantities. Concerning the extraction and refining stages of their life cycle, thanks to public databases, the **company has estimated the environmental impact indicators, countries of origin and recovery rates of its production processes.** The company has drawn up a preliminary list of priority raw materials.

Risks & opportunities

Following the preliminary materiality analysis about the specific impacts of each technology, Enel identified **potential state-of-nature changes and corresponding categories of economic-financial risk and opportunity for each.** On top of this, the company determined opportunities for impact reduction/mitigation and management improvement actions.

The analysis of the consequences of climate change (see Enel's *Integrated Annual Report 2022* for information) considers the operational and economic-financial risks resulting from the occurrence of acute and chronic meteorological phenomena and their effects on the integrity, operational continuity and correct functioning of the plants. For each phenomenon, the company has detected specific adaptation and resilience solutions.

Enel's Roadmap to Nature Positive is aligned to TNFD. The company adopts a comprehensive approach to assess environmental impacts, considering both construction and operation phases, starting first by technology, as well as analyzing the upstream supply chain. To determine its material impacts & dependencies, and a priority list of raw materials.

Stages 2 & 3 in the Roadmap to Nature Positive – Commit & Transform

This section illustrates how the company, after identifying the material DIROs, is implementing practical and concrete actions, setting its commitments and improving its nature-related strategy.

Enel integrates its risk and opportunity analysis into the Group's decision-making process and governance. The company has set and monitors specific targets to reduce its negative impacts on nature, restore habitats and share the benefits of ecosystem services with the communities it interacts with.

Recently, the Group has been engaged in shaping the implementation methodology for "No Net Loss" and testing it on new projects. Supported by the technical expertise of The Biodiversity Consultancy, **Enel has shaped a site-specific methodology to adopt the "No Net Loss" biodiversity principle,** aiming to define and execute any required mitigation actions for each new infrastructure project. This methodology aligns with the International Finance Corporation Performance Standard 6, which emphasizes the conservation of biodiversity and living natural resources.

Stage 4 in the Roadmap to Nature Positive – Disclose

This section illustrates how the company is currently disclosing and planning to disclose, including any relevant disclosure requirements it aligns with.

In 2023, Enel published its biodiversity-related commitment and policies, which it also detailed in its Sustainability Report. In the same report, the Group also discloses a first analysis of its nature-based impacts and dependencies by technology, which it carried out following a draft of TNFD LEAP guidelines.

In the 2024 version of its Sustainability Report, Enel will improve its disclosure capabilities, reporting the first outcomes of the DIRO analysis undertaken following the evaluation approach proposed by SBTN AR3T and TNFD LEAP and aligned with ESRS indications.

Datasets/databases & tools

ENCORE, **IUCN**, Integrated Biodiversity Assessment Tool (**IBAT**), **Copernicus**; World Resources Institute (**WRI**) **Aqueduct Water Risk Atlas**, United Nations Environment Programme World Conservation Monitoring Centre (**UNEP-WCMC**) **Critical Habitat Screening Layer**

Partnerships

Enel is actively committed to the development of more ambitious policies to preserve nature and biodiversity, collaborating with the most relevant global stakeholders and participating in multilateral initiatives and dialogues. In particular, the Group engages with:

→ **Business for Nature**, as a signatory of the Nature is Everyone's Business call to action and the Business Statement for Mandatory Assessment and Disclosure;

→ **WBCSD**, participating in the multistakeholder dialogue on the development of the Roadmap to Nature Positive;

→ **TNFD**, through the participation in the Forum aimed at creating a global framework to assess and report on nature-related risks and opportunities and by joining the **WBCSD-led TNFD Pilot Program**;

→ **SBTN**, to define specific new improvement targets and objectives for nature and biodiversity conservation.

Energy member: Enel
continued

Key challenges & lessons learned

There are many challenges for Enel to pursue to improve its roadmap to nature positive, including:

→ There is a **need for more publicly available data and databases** on habitats (such as type, conditions, sensitivity) and ecosystem services.

→ **Greater granularity of data from the local to regional levels** would allow Enel to deepen the DIRO analysis and would support the use of a common metric. This last point is important because standard global metrics are essential to properly evaluating a company's nature performance and provide a robust guideline for investors.

→ **Commodity and industrial component supply chain analysis** still needs significant improvement in terms of available data and metrics.

Outcomes & benefits

The company has identified **multiple benefits** in implementing a nature roadmap:

→ **Increased knowledge of nature's correlated effects and sensitivities on the company's dependence** on nature's resources, which can better direct the Group's actions aimed at mitigating nature-related risks and finding relevant opportunities;

→ The **ability to answer investors' increasing requests** to disclose nature impacts, risks and opportunities;

→ The capacity to **comply with mandatory disclosure requirements.**

→ Source: Getty Images

Acknowledgements

Disclaimer

This document showcases a practical example of a corporate approach to building a nature strategy for the energy sector. The primary intention is to offer a real-life case illustrating how an industry player is undertaking their nature journey and implementing the WBCSD Roadmap to Nature Positive: Foundations for the energy system.

The example does not prescribe a one-size-fits-all approach. Each case depicted is specific to the context of the respective company and may not be directly applicable to all situations. Given the evolving nature of sustainability practices, it is advisable to continuously review and update strategies in line with emerging industry standards, regulatory changes and evolving best practices.

Acknowledgements

This publication is a resource complementing **WBCSD's Roadmap to Nature Positive: Foundations for the energy system guidance**.

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The report has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice.

About WBCSD

The World Business Council for Sustainable Development (WBCSD) is a global community of over 220 of the world's leading businesses, representing a combined revenue of more than USD $8.5 trillion and 19 million employees. Together, we transform the systems we work in to limit the impact of the climate crisis, restore nature and tackle inequality.

We accelerate value chain transformation across key sectors and reshape the financial system to reward sustainable leadership and action through a lower cost of capital. Through the exchange of best practices, improving performance, accessing education, forming partnerships, and shaping the policy agenda, we drive progress in businesses and sharpen the accountability of their performance.

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