SCORE LCA

TESTIMONY ON THE STUDY « TAKING FORESTS INTO ACCOUNT IN LCA »

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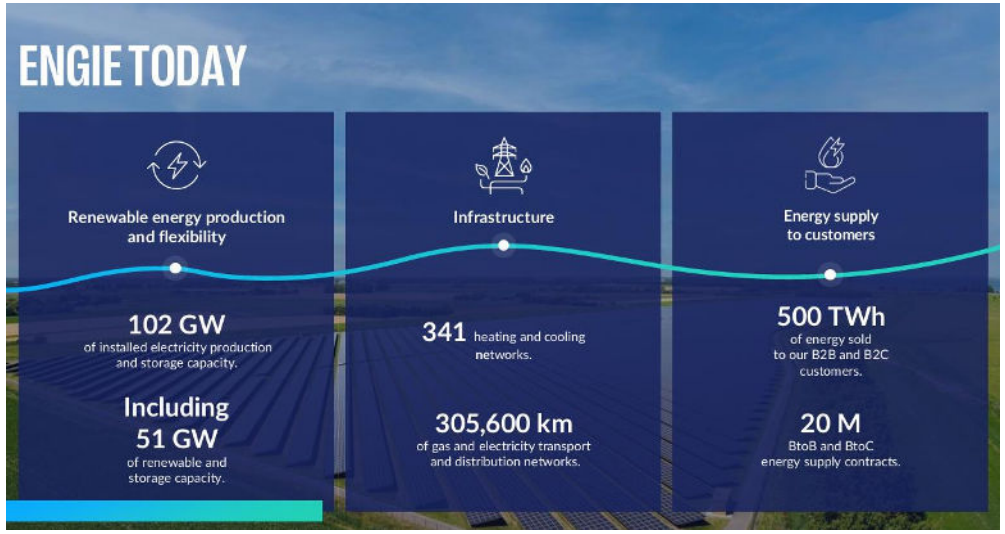

ENGIE’s forests-related issues

Woody biomass

Use and marketing of two main types of solid biomass: wood chips and pellets

Projects development

Potential direct impacts of energy projects on forests - installation of wind turbines, power grids, or power plants - such as local deforestation, habitat fragmentation, or the disturbance of sensitive species

Compensation

Central role of forests in the objective towards the Net Zero ambition of the Group

ENGIE's policy on forests, as part of the ESG policy

GENERAL INFORMATION | ENVIRONMENT – CLIMATE – NATURE | SOCIAL SOCIETAL – JUST TRANSITION – HUMAN RESOURCES – HEALTH AND SAFETY – SUSTAINABLE PROCUREMENT | GOVERNANCE

FORESTS

MAIN OBJECTIVES

TRACEABILITY AND COMPLIANCE

Biomass is traceable and complies with European regulations governing wood (or equivalent) in all cases, to ensure compliance with the European Taxonomy.

2023	2024	2025	TARGET 2030
100%	100%	100%	100%

DEFORESTATION AVOIDANCE IN PROJECTS

ENGIE develops projects all over the world, such as renewable energies and linear infrastructures. **For any project, the priority is to avoid any negative impact on biodiversity**, i.e. species and habitats. Applying and respecting the mitigation hierarchy (Avoid - Reduce - Compensate sequence) is part of the Group's ESG roadmap and is an objective of ENGIE's act4nature commitments. Where impacts on species or habitats remain, biodiversity offsets are managed in accordance with the IUCN policy developed in 2016, and with the participation of relevant stakeholders.

The way in which cut trees are compensated is defined with the relevant stakeholders in such a way as to best preserve the ecosystem, habitats and species. Indigenous peoples and local communities are also listened to and their expectations integrated as far as possible.

SUSTAINABILITY

Option a. Biomass is certified against PEFC non-controversial sources, FSC controlled wood, SBP or an equivalent voluntary scheme recognized by the European Commission under the EU RED II directive.

Option b. Where such certifications are not available, a sourcing policy (indicating sustainable forest management that respects ecosystems) is defined and communicated to raw material suppliers, and its application is verified by due diligence on a recurring basis (at least every five years).

The sourcing policy specifies that biomass should not be sourced from high-quality sawlogs or stemwood. In the specific case of plantations, biomass can only come from the products of a plantation if the plantation is certified as indicated in option a. If this is not the case, the biomass may come from plantation residues in accordance with option b.

2023	2024	2025	TARGET 2030
100%	100%	100%	100%

USE OF A SUSTAINABLE WOODY BIOMASS

ENGIE is a member of the **Sustainable Biomass Program**.
This program provides a standard framework for the use of biomass, while respecting ecosystems and local populations

Key takeaways from « Taking forests into account in LCA » study

➢ Biogenic carbon & time scale:

Biogenic carbon neutrality is valid only under strict conditions (forest in equilibrium, complete cycle, CO_2 emissions, no land-use change), which are rarely met for wood energy; a dynamic LCA (>100 years for long-lived products) is recommended.

➢ Key silvicultural practices:

Conversion from coppice to coppice-under-high-forest: +5 to +12% carbon stock; leaving residues on the ground: +6% in the soil vs. removal. Immediate impacts on the greenhouse gas balance of biomass.

➢ Lack of sufficient LCA data alone:

Datasets (e.g., ecoinvent) describe products, not how forests function or their components - making them unsuitable for guiding a rigorous biomass policy.

➢ Biodiversity & ecosystem services:

These are rarely or never integrated into LCA characterization methods; deadwood and the management of forest residues are key to biodiversity and soil carbon.

➢ ENGIE's Policy Alignment:

Traceability, certifications (SBP/FSC/PEFC), short supply chains, GHG reductions of ≥80%, exclusion of areas with high carbon and biodiversity value, and respect for local communities: these requirements call for more on-the-ground data and credible LCA verification.

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