

Strand 5: Circular Economy Policy

- **Context: virtuous management of planetary resources**

The overexploitation of natural resources is a real danger for humanity. At present, our withdrawals far exceed the Earth's capacity to regenerate its resources and absorb waste. The day on which we will exceed the consumption of natural resources that the Earth can renew in the same year is getting closer and closer (29 July 2019, 2 months earlier than in 1999, *source WWF*).

The circular economy, an economic model whose objective is to produce goods and services in a sustainable way, by limiting consumption, resource wastage and waste production, is a response to this challenge. In the energy sector, the circular economy can be developed around three main themes: the exploitation of natural resources for energy production, energy consumption by end-users and the recovery of waste heat.

- **The circular economy within the Group :**

The Group considers the integration of its activities into a more circular economy as an essential factor of its economic and environmental performance. Actions are carried out at several levels: reuse of organic waste (production of biomethane), management of the end-of-life of materials (wind turbines, solar panels, etc.), or sustainable use of resources. The circular economy often leads to a reduction in production costs, an increase in added value and increased consumer loyalty.

For example, by combining its material, waste and energy flows with those of its neighboring partners, the Group can contribute to the implementation of a resource- and cost-efficient "industrial ecology" in a win-win approach with its stakeholders.

The Group is open to other approaches to strengthen the resource economy it is exploring, such as the functionality economy.

For more than 20 years, ENGIE has been measuring its footprint on resources through Life Cycle Assessments. It has also developed tools for analysing flows on a territorial scale to reduce the impact on resources and develop industrial ecology (the Group was a driving force in the Ecopal experiment conducted in northern France in the 2000s).

Each site or activity works to recover and/or recycle its waste. The Group, through its research and development teams in particular, works with designers, suppliers and recycling channels to reduce the impact on resources.

As a major player in the ecological transition, ENGIE implements the principles of the circular economy and is thus committed to :

- Increase the recycling rate of waste generated by industrial activities
- Reduce the use of fossil fuels
- Developing green gases such as biomethane and hydrogen
- Optimal recovery of waste heat from networks
- Identify recycling channels and thus reduce the impact on resources, particularly for renewable solar and wind energy
- Use resources in a sustainable manner via certified or labelled channels (e.g. biomass)
- Encourage eco-design in products used and services
- Combat deforestation in the supply chain and use only biomass from sustainably managed forests (see forest policy)
- Promote the reuse of spare parts and circulation of stock within the Group via a dedicated platform (BeeWe)

- **Objectives and commitments:**

Since 2017, the Group has made commitments to the circular economy:

- Boosting renewable gases: biogas, first, second and third generation biomethane
- Develop energy recovery from industrial and tertiary processes
- Innovative tools to support the decision-making process for the circular economy in industrial areas (BE CIRCLE tool)

The new targets and commitments are set for the period 2020-2030.

	<i>Targets</i>
Study of the impact of major activities on the planetary boundaries	2025
Quantity of biogas injected into the gas transmission or distribution networks controlled by the Group	>1.5 TWh/year in 2023 >5 TWh/year in 2030