

ENGIE Commitment to limit the use of energy crops for biomethane production

Energy crops have played an important role in the rise of biogas production in several parts of Europe. But with increasing volumes and in view of Europe's target to produce 35 bcm biomethane by 2030, concerns are voiced about food security and unsustainable cultivation. ENGIE has taken a step ahead and made a public commitment to limit the use of energy crops for our biomethane activities in France and Europe. This ambitious commitment which will require even closer cooperation with farmers and other feedstock providers, places ENGIE among the most responsible actors of the biogas sector.

What are energy crops and what is the problem?

Energy crops are understood as agricultural crops such as maize, sugar beet, cereals etc. grown with the primary purpose of using them for energy production. Such crops are a convenient feedstock thanks to their stable quality, high energy yield (per hectare of arable land and biogas production), easy handling, and cost-competitiveness. However, energy crops compete for land with food and feed crops, possibly leading to land-use change elsewhere (which could come along with deforestation, etc.) and affecting food prices (even if many other factors play a role as well). In addition, energy crops are often grown in unsustainable monocultures with negative impact on the environment, notably greenhouse gas emissions and biodiversity.

What does ENGIE's commitment include exactly?

Concretely, we commit to reduce the use of energy crops to a very low proportion, a single-digit percentage at maximum. A very marginal use might still be necessary in certain cases, e.g. to complement the mix of feedstocks to maintain an appropriate biology inside the digester. The commitment covers both our existing assets and greenfield projects as well as future acquisitions. Regarding the latter, we will limit energy crops as soon as possible and within 10 years at the latest in line with existing supply contracts.

What alternatives are there to replace crops?

Already today, ENGIE's digesters are fed primarily with wastes and residues – agricultural residues, animal manure, co-products of food processing industry, municipal waste, etc. We also see a significant potential to use intermediate crops (what we call CIVE – Culture Intermédiaire à Vocation Énergétique – in France).

How are intermediate crops different from energy crops?

Intermediate crops are grown together with or between two main crops in a crop rotation, instead of leaving the soil bare.

If chosen well, depending on the local context, intermediate crops can deliver multiple environmental and agronomic benefits: protecting the soil against erosion, reducing nutrient leaching, providing organic matter, storing carbon in the soil, helping to limit the development of weeds and pests or diseases that could affect the main crops, maintaining biodiversity above and underground etc. At the same time, intermediate crops can serve as feedstock for biomethane production without competing for land-use with food and feed crops. And what comes out of the process is not only renewable energy but also the digestate, which returns back the nutrients to the soil as an organic fertilizer that can replace carbon-intensive mineral fertilizers. A nice circular model and a real win-win situation.

So, is the commitment ambitious?

It is! Our commitment goes clearly beyond what is required by legislation and is a first in kind in the sector. The French regulatory framework limits the use of food and feed crops at 15% gross tonnage of feedstock but this is not the case in most other countries. There is no general cap on food and feed crops on European level – they can be used for energy production as long as their cultivation complies with the minimum sustainability and greenhouse gas saving criteria.