



## Policy Recommendations for the Common Agricultural Policy (CAP)

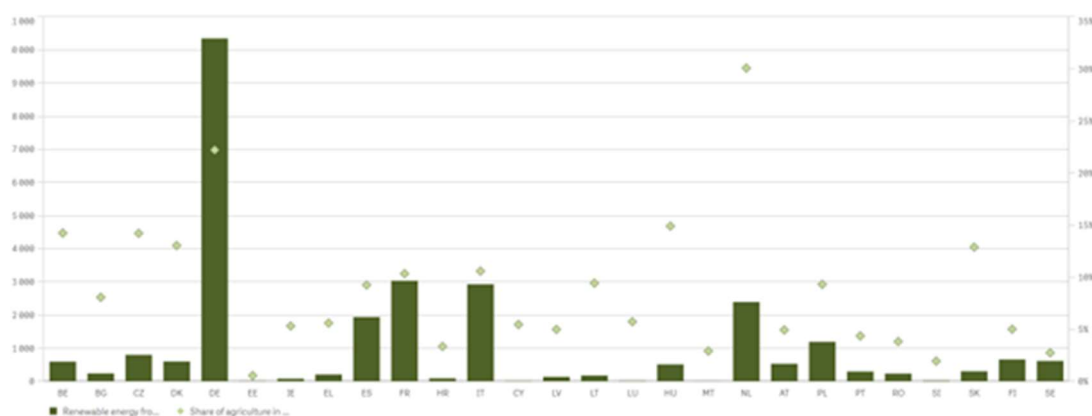
### The Challenge

#### *Integrating renewable energy in farming*

Farming and connected industries employ 44 million people in the EU, generate 6% of the EU's GDP and 7% of its total exports.<sup>1</sup> However, according to official [UNFCCC reporting](#), farming is responsible for 11% of total EU greenhouse gas emissions, with 43% of these emissions coming from enteric fermentation in livestock and 38% from fertilizer use.<sup>2</sup> If imported feed and other agricultural products were to also be added to the EU's farming footprint, then the sector's emissions would be significantly higher.

Integrating renewable energy in-farm solutions can significantly reduce carbon emissions from energy use by substituting fossil fuels, for example to heat barns for livestock and power machinery. The sustainable use of biomass residues and by-products can produce energy while avoiding methane release into the atmosphere. Moreover, with around half of the EU's territory being used for agriculture, farmers have a unique opportunity to become net producers of renewable energy and contribute towards Europe's energy transition and energy security. In 2021, renewable energy from agriculture accounted for 11.5% of the EU's renewable energy production (see Graph 1 below). Under the right circumstances, further deployment of renewable energy in agriculture is possible, thereby complementing farmers' revenues and supporting the EU to meet its climate targets and energy sovereignty objectives.

**Graph 1: Production of renewable energy from agriculture at Member State level, 2021**



Source: Eurostat 2024 C43 Production of renewable energy from agriculture and forestry

<sup>1</sup> [Mapping and analysis of CAP strategic plans](#). European Commission (2023), page 226.

<sup>2</sup> [Progress and prospects for decarbonisation in the agriculture sector and beyond](#). European Environment Agency (2023)



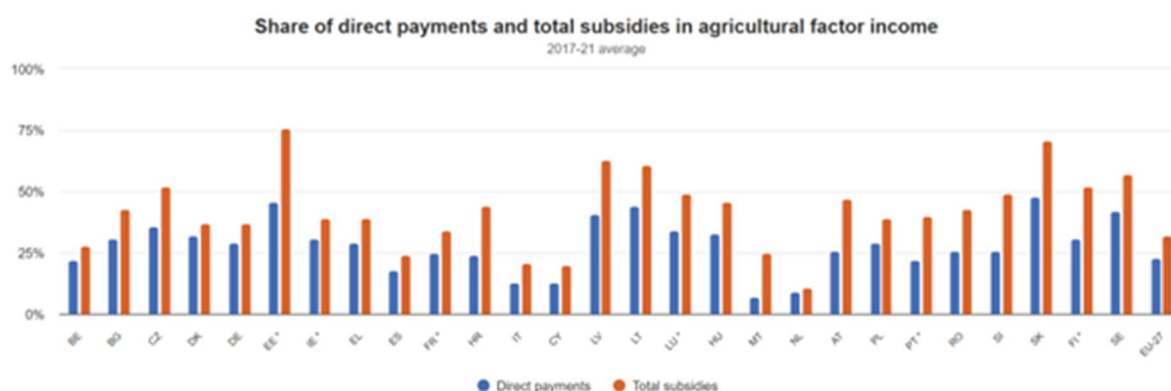


## The Opportunity

### *Introducing the EU's Common Agricultural Policy*

The EU's Common Agricultural Policy (CAP) provides income support to farmers - often referred to as "direct payments" - on the condition that a farmer respects a series of minimum environmental and land quality requirements. Additionally, farmers may get investment support to set up or upgrade their farm. Top-up CAP payments – mainly as "eco-schemes" and "rural development" funding – are available to those participating in higher voluntary schemes such as organic farming, carbon sequestration schemes, and additional biodiversity measures.

The CAP has a budget of €378.5 billion, corresponding to 31% of the EU's total budget for 2021-2027.<sup>3</sup> EU farm subsidies from the EU budget together with public co-financing from countries and regions accounted for 32% of EU farmers' revenues in 2021.<sup>4</sup>



Source: Eurostat 2024

Based on CAP objectives and rules, each EU country prepares a CAP Strategic Plan with its own priorities and focus. To track success and implement common objectives the CAP has a monitoring and evaluation framework based on a list of indicators covering environmental and socioeconomic factors. The European Commission checks that countries correctly implement their stated plans. There are two CAP [result indicators](#) relevant for renewables that countries must report: "R.15 Renewable energy from agriculture and forestry and from other renewable energy sources"; "R.16 Investment related to climate".

<sup>3</sup> Factsheet on [The EU's 2021-2027 long-term budget & NextGenerationEU: Facts and Figures](#). European Commission, 2024

<sup>4</sup> [Share of direct payments and total subsidies in agricultural](#). Eurostat, 2024



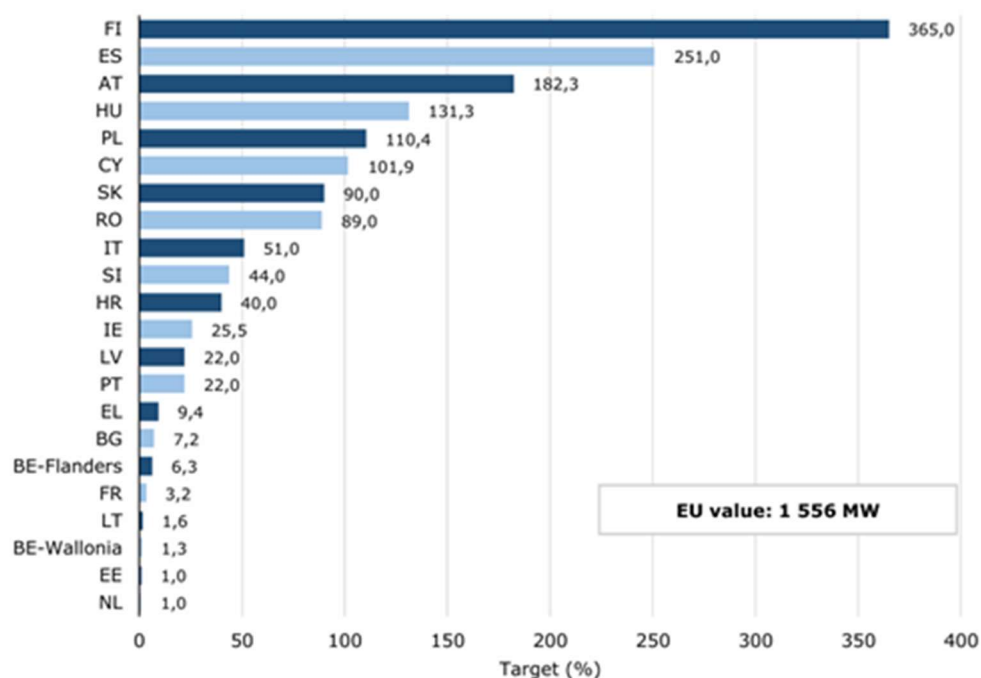


## Opportunities and barriers for renewables in the current CAP

### Overall support for renewable energy in CAP

Under indicator R.15, the European Commission has found that Member States in their CAP national plans intend to install 1556.4 MW of new renewable energy capacity in EU farms by 2029<sup>5</sup> (See graph below), which is a tiny share of the several hundred GW of new capacity needed to reach the EU renewable energy target of 42.5% of final energy consumption from renewables by 2030.

**Figure 283 Targets for R.15 Renewable energy from agriculture, forestry and from other renewable sources**



Note that CZ, DK, DE, LU, MT, SE did not set a target for this indicator

Indicator: Supported investments in renewable energy production capacity, including bio-based (in MW) EU target: 1 556 MW

Source: European Commission, 2023

EU countries could aim higher by assigning more money for in-farm renewable energy deployment out of their leftover CAP 2023-27 budgets. More importantly, renewable energy deployment should be prioritized in the post-2027 CAP revision discussions, which are expected to start in 2025. CAP plans can financially support renewable energy deployment.

<sup>5</sup> European Commission, 2023. Page 474





## Policy recommendations:

- *Funding investments in generation capacity on farms*
- *Funding investment in grid connections, smart meters, and other digital infrastructure in farms;*
- *Setting clear objectives and defining technologies to decarbonize the farming sector, consistent with the 2024 updates to the National Energy and Climate Plans (NECPs).*

### *Bioenergy development*

Bioenergy is an abundant in-farm renewable energy source. Bioenergy resources include forestry residues (i.e. as solid biomass), humid organic material suitable for anaerobic digestion, and other fermentation processes to produce biofuels. Any support from CAP to biomass in the future will have to respect the [biomass sustainability criteria laid down in the renewable energy directive](#). There are usually additional national criteria for biomass, so in-farm biomass installations will vary from one country to another.

In this context, we recommend that public authorities align new biomass projects with the EU biomass criteria from 2023. This will give confidence to farmers that the latest biomass rules are here to stay. Moreover, the new EU criteria can bring a degree of harmonization of national sustainability requirements, which can help bioenergy technology and service providers to work more effectively cross-border. Therefore, the revision of the post-2027 CAP should directly mention the new sustainability criteria and that future national plans step up the support for the next generation of biomass projects.

CAP-supported projects should prioritise biomass to balance intermittent renewables in the electric grid and to decarbonise hard to abate sectors (e.g. biofuels for aviation). One of the most effective ways to do the latter is by upgrading biogas plants that currently produce electricity into biomethane plants that can supply renewable gas to industry.

## Policy recommendations:

- *EU Countries should align their national policies and bioenergy projects with the 2023 European biomass criteria as soon as possible.*
- *The post-2027 CAP revision and future CAP Strategic Plans should fully integrate the European biomass criteria.*
- *Where possible, prioritise the use of biomass to balance the electric grid and to decarbonise hard to abate sectors.*

### *Deploying solar technologies*

Farm structures like barns and houses offer significant rooftop surface to install photovoltaic panels, solar thermal and combined photovoltaic-thermal (PVT) systems. The CAP should prioritise giving support to photovoltaic-thermal systems to maximise the use of rooftop space on European farms, encouraging farmers to cover their average energy needs and where possible become net producers of energy.





National support schemes should make it a priority to deploy rooftop solar in farms and permitting rules should be reviewed when needed to simplify procedures.

Agrivoltaics is a promising photovoltaic application with a huge potential. According to the Joint Research Centre, if 1 % of the EU's Utilised Agricultural Area (UAA) is covered with Agri-PV system, this translates into over 900 GW (assuming 0.6 MW is installed per hectare). This is more than the total PV installed capacity that is projected in the EU by 2030.<sup>6</sup>

CAP area payments are possible for land used for agrivoltaics, provided there is a “predominance of agricultural activity”. Usually this is a combination of raised PV panels combined with livestock grazing, although it is also possible to plant and harvest crops. Unfortunately, there is no standardised-EU definition on when agrivoltaics qualify for CAP payments. As a result, some countries have moved ahead to set rules for agrivoltaics, while others don't allow for CAP support on this land. [Four EU countries](#) have measures supporting agrivoltaics in their CAP strategic plans ([Germany](#), Italy, the Netherlands, and Slovenia) and Czechia just passed a law with new rules on this emerging sector. Meanwhile, the deployment of agrivoltaics in [Central European countries](#) is lagging behind due to a lack of support according to Members. We recommend that the European Commission provides detailed guidance on agrivoltaics before member states start preparing their post-2027 CAP Strategic Plans, ideally during 2025 or 2026.

Further guidance should be provided for farmers and public authorities on available funding for agrivoltaics, as well as deploying PV, PVT, and solar thermal on degraded land. With the Recovery and Resilience Facility soon to expire, the EU needs a new tool that can fund the deployment of renewable technologies. While the CAP can do more to support renewables in farms, new large-scale investment tools should be put in place post-2027.

#### Policy recommendations:

- *The post-2027 CAP should encourage countries to support the deployment of PVT systems in farms*
- *European Commission to prepare detailed guidance on agrivoltaics – including compatibility with CAP direct payments - by latest 2026*
- *New clean investment tools should support agrivoltaics, as well as in-farm PV, PVT, and solar thermal*

<sup>6</sup> [Overview of the Potential and Challenges for Agri-Photovoltaics in the European Union](#). JRC 2023

