APSTE
Association for Production, Storage and Trading of Electricity

AgriPV Legal Framework in Bulgaria

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Members

APSTE is established in 2019 by 17 Bulgarian and international companies and by now more than 85 companies has joined the Association.

APSTE Objectives

- To actively cooperate with regulatory institutions to ease administrative regimes and create a favorable legal and regulatory framework for the development of renewable energy and energy storage systems;
- To continue the development of the renewable sector by applying good and working models and practices;
- To assist in the development, introduction and enforcement of innovative technological solutions for protection of the environment and fighting the climate change;
- To distribute knowledge and good practices through webinars, trainings, surveys, analyzes & newsletters;
- To continue building local, regional and international partnerships;
- To connect members through conferences, meetings, forums, etc.

Membership Benefits

Awareness - up to date information about the energy sector in Bulgaria, latest regulatory and market developments concerning renewable energy, storage and trading of electricity

Opportunity - opportunity to participate in the association task force groups that work on the policy statements and stakeholder engagement activities of the association

Business contacts with other members and partners of the association

Discounts - preferential terms and discounts for events which the association organizes or partners

Promotion - increased brand visibility via the association web presence and official presentations, webinars, etc

Partnerships

SolarPower Europe

EASE European Association for Storage of Energy

Wind EUROPE

RE-Source
European platform for corporate renewable energy sourcing

SOFIA UNIVERSITY St. KLIMENT OHRIDSKI est 1888
FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

Current PV Regime on Agricultural Land

Allowed Land: Categories VII to X

Pursuant to **Art. 23 (3) of Agricultoral Land Preserving Act (ALPA)**, utility-scale PV plants are permitted with land status reclassification only on non-irrigated agricultural lands of categories VII - X or non-categorizable plots.

Fertile Lands: Mandatory Reclassification

For categories I - VI, a rigorous conversion process is required. Categories I - IV necessitate Ministry approval (Ministry of Agriculture and Food), while categories V - VI involve a lengthy administrative procedure lasting **6 to 12 months**.

Critical Impediment for AgriPV

Creates extensive project delays, forces permanent withdrawal of land from Bulgaria's agricultural fund, and legally bars dual land-use models (crop/pasture farming alongside PV generation).

Source: Bulgarian Agricultural Land Protection Act (ALPA / ЗОЗ3), Art. 23 (3)

2023 Legislative Reforms for AgriPV

First Legal Definition

SG No. 86 / 13.10.2023 (AERS / ALPA): Formalized "Agrophotovoltaics" into Bulgarian law as energy facilities constructed on agricultural land that allow peaceful, unhindered cultivation for its primary purpose.

TRANSITIONAL PROV. §11

Dual-Use Authorization

Art. 2 (4) ALPA: Permitted construction of AgriPV alongside greenhouses on agricultural land without changing its destination, delegating technical standards to a joint ministerial ordinance.

NO LAND STATUS CHANGE

Scale Restrictions

Art. 23 (1) ALPA: Explicitly retained the restriction that facilities exceeding **500 decares** on irrigated lands and soil categories I - IV require individual Council of Ministers authorization.

> 500 DECARES CAP

State Gazette No. 86 / 13.10.2023 & SG No. 106 / 22.12.2023

Constitutional Court Ruling & Outlook

Constitutional Court Ruling

Decision of 23.04.2025: Declared **Art. 2, para. 4** and **Art. 17a, para. 3** of ALPA unconstitutional, striking down the secondary-regulation pathway.

- **Subordinate Act Violation:** Regulating construction on agricultural land without destination change via ministerial ordinance violates **Art. 21 (2) & Art. 15** of the Constitution.
- **Risk to Natural Resources:** The Court found that secondary ordinances cannot guarantee an objective assessment balancing soil quality against non-agricultural interventions.

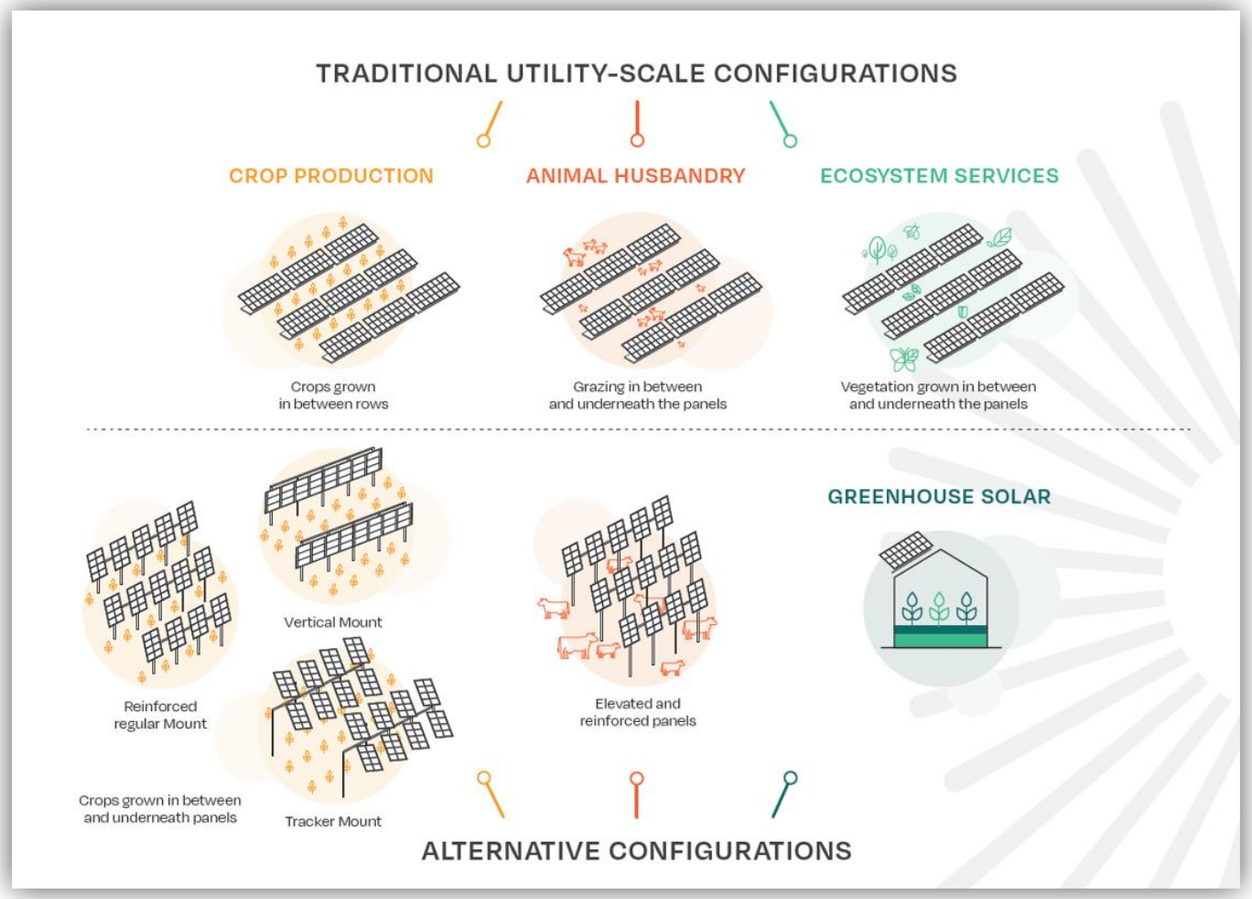
Legal Implications & Next Steps

Mandate for Primary Legislation: The ruling establishes that all AgriPV exceptions and criteria must be enacted directly by primary Parliamentary statute.

- **Statutory Exclusivity:** Conditions for AgriPV dual use must be strictly defined by statute as an exception, subject to proven need and clear statutory parameters.
- **Sector Action (APSTE):** Immediate legislative advocacy is required to formulate primary statutory criteria enabling agrivoltaics while honoring constitutional safeguards.

Constitutional Court of the Republic of Bulgaria — Decision of 23.04.2025 on Art. 21 (2) & Art. 15

Bases of Agrivoltaics



- What are Agrivoltaics?
- Importance of combining agricultural production with solar energy generation
- Benefits of optimizing land use and promoting sustainability
- The potential capacity for agrivoltaic in Europe is 51 TW, which would result in an electricity yield of 71,500 TWh/year.

Recent reports on agrivoltaic synergies

Orchard in Germany

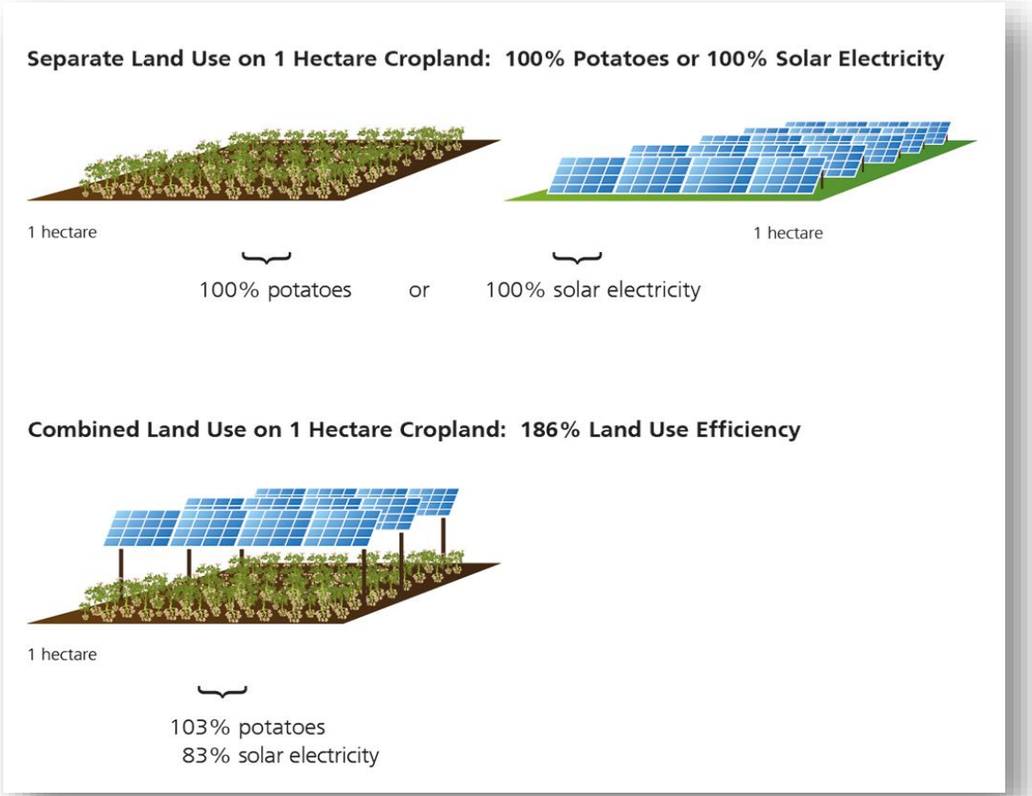
Produced more electricity than assumed due to the cooling provided by the plants underneath.

70% less pesticides were required, and the need for irrigation was reduced by 50%.

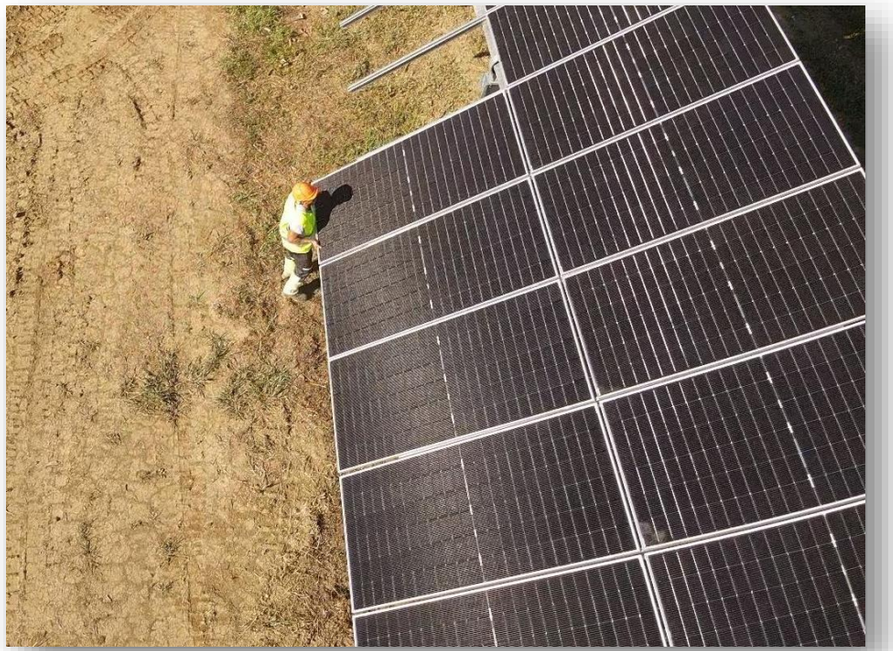
Winery in Italy

Reduced exposure to extreme weather, cut environmental impact, lowered water consumption by up to 20%, and increased land yield by 20% to 60%

The PV array allowed the cultivation of vines that are normally not viable at this latitude.



Advanced vs Base AgriPV



Technique comparison for panel installation depending on structure height and type

Recent realized projects

Austria

Largest AgriPV wind system in Europe

- Power - up to 164 MW
- Generation - approx. 193 000 MWh
- Area: 180 hectares
- Distance b/w rows: 8 meters
- Connected to: 237MW wind farm

Tracker installation allowing for seamless coupling with conventional agricultural activities, plus 10% increase in electricity production compared to fixed systems.

Integrated **natural barriers** like hedges and ditches do not hinder energy production and preserve the local biotope. **Crops** like potatoes benefit from the shade and microclimate created by the panels. Additionally, water-saving irrigation systems can be easily implemented.

Recent finalized projects

Italy

- AgriPV projects: 4
- Total capacity: 108 MWp
- Distance b/w rows: 10 meters

No pasture or tall crops to take into account between the modules and the structures are not that high.

On these projects we have plants and trees in the perimeter, beekeeping and fodder crops between the rows, lavender cultivation between the panels and hazelnut groves on some sites.

Overcoming challenges

Advanced AgriPV in Austria

- 30 000+ trips with platforms when mounting the panels
- 250km of corrugated tubes used in order to protect people and animals
- 750 000+ silicon caps to seal the screws on each panel
- 104 modules on each 3.8m high tracker
- The complex structure drops the tempo when stringing from 2000 panels/day with conventional systems to 650/day here

Report for EU Agrisolar Best Practices

Translation of SolarPower Europe's **Agrisolar Best Practice Guide**, which presents unique examples of synergies between agriculture and solar electricity generation.

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Thank you!

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