



FEDERAZIONE NAZIONALE IMPRESE
ELETTROTECNICHE ED ELETTRONICHE

La giornata dell'agrivoltaico: l'impatto del DLGS Testo Unico FER e del DL Ambiente

28 novembre 2024

Hotel Splendid Royal

Via di Porta Pinciana 14, Roma

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European agrisolar initiatives

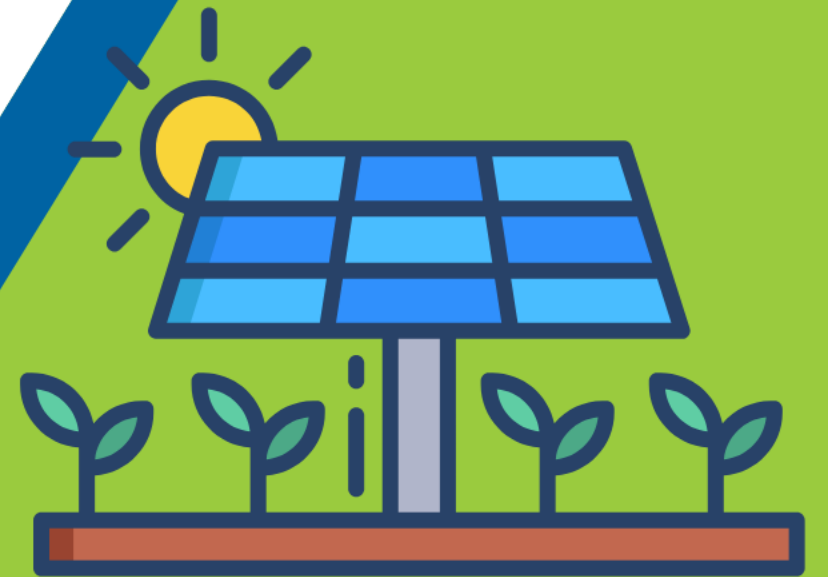
Lina Dubina

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Agrisolar offers an opportunity to create a win-win-win opportunity for farmers, society and the solar industry



Up to 60%¹

crop yield increase (depending on crop type, season, regional climate and PV configuration)



+20-30%

average water retention² for interrow and elevated PV systems



Up to +7°C³

increase of soil temperature in cold periods and

Up to -6°C⁴



Up to 80%⁵

increase of soil carbon storage for solar grazing projects



Up to 60%⁶

increase in pollinators observed on one project

SolarPower Europe has been active on agrisolar for many years



AGRI-PV: HOW SOLAR ENABLES THE CLEAN ENERGY TRANSITION IN RURAL AREAS

BRIEFING PAPER / SEPTEMBER 2020

Executive summary

Reaching the ambitious objectives of the European Green Deal will require a profound shift in the EU's agricultural and energy sectors. Agricultural photovoltaics (Agri-PV) offers an innovative, efficient, and cost-effective solution to simultaneously promote sustainable agriculture and the clean energy transition. Agri-PV reduces land competition between solar and agriculture under conditions that guarantee the efficiency, sustainability, and viability of both activities. By combining agricultural infrastructure with solar, the EU can make rural communities more competitive and sustainable.

Solar, as the most scalable and cost-effective clean energy technology, empowers farmers to be at the heart of the European Green Deal and the post-COVID green recovery. Agri-PV supports the transition to a sustainable food supply and ecosystem, channeling new investments in solar capacities, and supporting the objectives of the Common Agricultural Policy and of the Farm to Fork Strategy. As a disruptive set of technologies, innovative Agri-PV solutions can drive the modernisation of the EU's food system and increase its resilience to climate change. Finally, thanks to its high land-use efficiency, Agri-PV is particularly suited to boost the clean energy transition in land-scarce regions, such as EU islands.

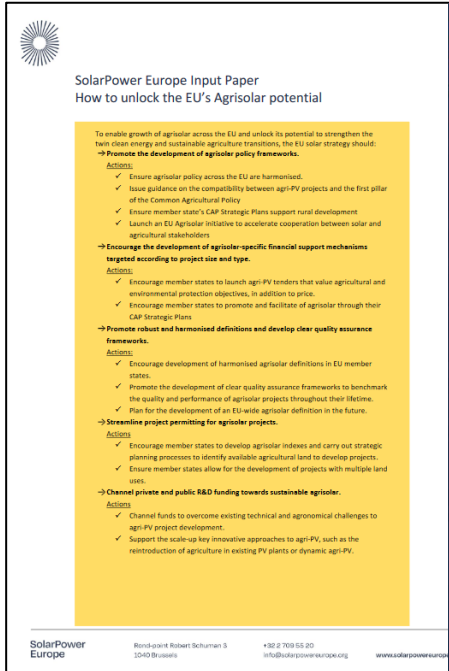
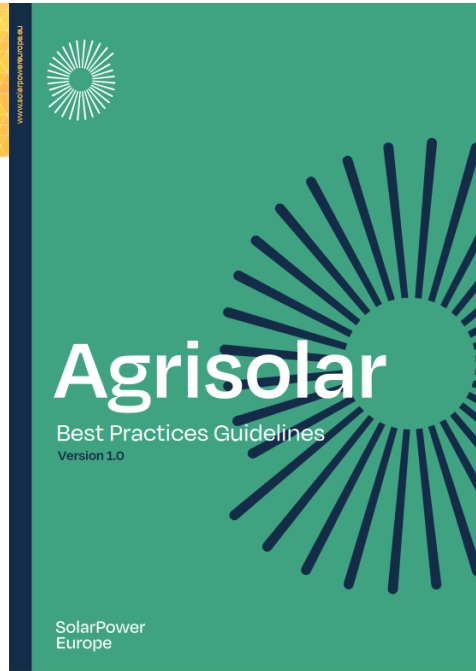
The potential for Agri-PV in the EU is immense: if Agri-PV were deployed on only 1% of Europe's arable land, its technical capacity would be over 700 GW. Tapping into this potential would place the European solar industry at the forefront of global solar innovation. The sector is already emerging in Europe, with certain Member States actively supporting its development, and this has triggered strong interest from emerging countries faced with the challenge of droughts and climate-related transformations. It is time for a coordinated effort to boost the development of Agri-PV across Europe.

To kick-start the Agri-PV sector in Europe, the EU and its Member States should:

POLICY RECOMMENDATIONS:

1. Integrate a "European Agri-PV strategy" within the future common Agricultural Policy
2. Develop Agri-PV regulatory frameworks and prioritise investments into solar within Common Agricultural Policy Strategic Plans
3. Mainstream Agri-PV within the implementation of the Farm to Fork Strategy
4. Support Agri-PV research through dedicated calls in Horizon Europe
5. Integrate Agri-PV within climate change adaptation strategies
6. Incentivise the use of Agri-PV in EU islands' decarbonisation strategies

SolarPower Europe | 09/2020 | 2020-11



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Agrisolar Handbook developed with solar industry and farmers



Identifying 10 archetypes of agrisolar

Agricultural Land			Land under protective cover
Arable land	Permanent crop land	Permanent meadows and pastures	
 <p>1. Elevated Crop-PV</p>	 <p>4. Elevated perennial-PV</p>	 <p>6. Elevated PV with livestock grazing</p>	 <p>9. Elevated PV greenhouses</p>
 <p>2. Interspace Crop-PV</p>	 <p>5. Interspace perennial-PV</p>	 <p>7. Interspace PV with livestock grazing</p>	
 <p>3. Eco-PV</p>		 <p>8. Hay-PV</p>	






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Providing clarity on the economics

Business Models	Energy producer owns and operates PV project (in agreement with farmer)	Farmer owns and operates the project	Joint ownership	
Management of costs and risks for PV	Energy producer	Farmer		Energy producer
Revenue generation and benefits from PV				
Revenue generation and benefits of the agricultural activity	Farmer		Farmer	
Management of costs and risks to the agricultural activity				
Management of the PV system	Energy producer			
Feasibility of business scheme	Commonly used	Applied on a case-by-case basis	Innovative	
Small-scale ^{10 11} agrisolar projects	✓	✓	✓	
Medium ¹² to large scale ¹³ agrisolar	✓		✓	

Revenue streams

Additional revenue streams a farmer and/or landowner can receive through an agrisolar project

	Land lease payments during operation of agrisolar project
Revenues from agreements during construction phase	
	Revenues from maintenance of services
Revenues from a provision of agricultural equipment	
	Revenues from the sale of electricity



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We also need to learn from policy & regulatory experience

1 Clarify that agrisolar has access to the Common Agricultural Policy (CAP)⁷ direct payments.

2 Develop relevant schemes to recognise the value of multiple land use.

3 Recognise and integrate agrisolar into environmental requirements or support schemes on agricultural land, including by gathering data on agrisolar projects' environmental and nature benefits.

4 Improve permitting and grid connection procedures.

5 Support further research and innovation in the agrisolar field.

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SolarPower Europe's Agrisolar Digital Map

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Discover SolarPower Europe's

AGRISOLAR DIGITAL MAP



 **AgriSolar**
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It is the **first-of-its-kind digital map** showcasing agrisolar projects across Europe.

The innovative platform presents over **200 agrisolar** projects spanning 10 European countries.

With a combined capacity exceeding **2.8 GW**, these agrisolar projects represent a significant milestone in the integration of **solar energy with agricultural practices**.

Possibility to filter projects based on a) installed capacity b) type of technology c) application d) type of project or by company and/or country

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Thank you for your attention!

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