SOLAQUA

Accessible, reliable and affordable solar irrigation for Europe and beyond

H2020 PROGRAM

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952879"
CONTEXT

- 10.2 million ha. of irrigated land
- Represents more than half of the value of agricultural production in the Mediterranean regions
- 60 bn m³ year of water consumption (44% of total water used in Europe)
- 24 TWh/year of energy consumption

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Consist of the integration of a photovoltaic generator into the irrigation system
100% clean energy and 0 fuel costs but:
• Requires high up-front investments and long payback times
• Requires a careful EPC and O&M in order to avoid infrastructure damage
• The resulting cost of energy is still higher than incumbent solutions in most cases

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SolAqua’s objectives and partners

- Standardized PPA
- Best practices EPC and O&M
- Certified installers and projects
- Pool of PVI projects

Competitive cost of clean and reliable energy for irrigators

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Update

Technical guide for photovoltaic irrigation installers:

- Including best practices and quality control protocols.
- Important document in order to assess the suitability of projects for a range of issues including bankability and obtention of grants.
- Available in February 2022 at www.sol-aqua.eu
Update

Economic assessment methodology for photovoltaic irrigation:

• Techno-economic assessment oriented to investors and Banks (IRR, NPV, LCOE).

• Cost-Benefit assessment oriented to Public Authorities (socioeconomic impact, CO2 emissions avoidance).

• Available in February 2022 at www.sol-aqua.eu
Update

Power Purchase Agreement for photovoltaic irrigation:

• Standardized contract that protects consumers and investors.

• Ensures quality levels and legal protection.

• Available in English, Spanish, Portuguese and Italian.

• Already implemented in a 1.5 MW PV irrigation system (the largest in construction in the world)

• Available in February 2022 at www.sol-aqua.eu
Update

EAFRD Financial instrument for photovoltaic irrigation:

• Consisting in guarantees and loans for PVI projects.

• Combined with grants, it can reduce the cost of clean energy for irrigators to competitive levels.

• It is expected to be implemented in next Rural Development Plan (RDP) in at least three Management Authorities in Spain.

• Can be easily reproduced in other RDPs throughout Europe

• Available in September 2022 at www.sol-aqua.eu
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Thank You!

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