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AgriVoltaics

AGRICULTURE & ENERGY

OUR AGRIVOLTAIC SOLUTION

OET provides a complete energy solution for Greenhouse Cultivation (Hydroponic or Conventional), combining a protected Transparent structure for cultivation, with the production of Electricity. This innovative solution integrates the 3rd Generation of PVs, Semitransparent Organic Photovoltaics (OPVs), utilising the most modern technology and 35 years of unique experience.

The energy production consists of OPV Panels for the collection of solar energy, and when required, a Wind Generator for the production of wind energy and Bio-fuels for very cold areas. OPVs have unique features, they are transparent, lightweight (400gr/m²), flexible and can be easily installed on a greenhouse with low cost.

- ✓ The energy autonomous system is unique for use in off-grid and on-grid Greenhouse installations, for energy production and agriculture, and optimizes production in any region on the planet.
- ✓ The combination of a power production facility with Transparent Flexible OPV Panels and a sustainable agricultural activity, enables large-scale solar energy production, optimal land use and environmental protection.
- ✓ A comprehensive solution is provided, for a highly efficient and protected agricultural production, with great economic, environmental and social impact.

OUR SHOWCASE

Our site in Thessaloniki, features a Greenhouse used for hydroponic cultivation, and a Hybrid RES power generation and system that fully supports the site's cultivation activities.



AGRI-OPV PANELS



FUNCTIONALITIES & BENEFITS

- Energy Generation and Cultivation
- Crop Production Boost
- Blocking of Harmful UV Radiation
- Providing Shading, Energy and Water Efficiency
- Adjustable Transparency 20-50%
- Tunable Photosynthesis



ENERGY EFFICIENCY & SUSTAINABILITY

- Energy Savings & Energy Autonomy
- PAR Penetration
(Photosynthetically Active Radiation)
- Increase of Crop Production up to 30%
- Decrease Cooling Energy demands up to 30%
- Decrease Water demands up to 30%
- Lightweight Construction, Easy Installation



COST SAVINGS & PAYBACK BENEFIT

- Low Fabrication, Installation & Maintenance Costs
- Short Payback Period
- 15-30% Water Savings
(Depending on the level of shading due to heat shielding evapotranspiration reduction of crops)