

MASWES™ for Modern Agribusiness: The Best Locations for Autonomous Energy Supply

Rising electricity prices and the growing need for energy independence are driving businesses to seek new solutions. This is especially true for companies operating across large areas or in remote locations where grid connection is either expensive or unreliable. Under such conditions, the mobile solar-wind power station MASWES™ can deliver maximum efficiency and the highest economic return.

Conditions for the Best MASWES™ Performance

MASWES™ achieves its highest performance in open areas with strong solar exposure and stable wind conditions. Typical locations include:

- vineyards and orchards;
- farms and agricultural holdings;
- livestock complexes;
- agri-processing facilities;
- tourism and recreational sites;
- remote industrial and production locations.

The ideal operating conditions include:

- open terrain with minimal obstacles;
- a high number of sunny days throughout the year;
- average wind speeds of 4–6 m/s;
- expensive or unavailable grid connection;
- seasonal or year-round electricity demand.

Under these conditions, MASWES™ can generate 40–60 MWh of electricity annually, covering a significant share of the energy needs of small and medium-sized businesses.

Why Agriculture Benefits the Most

For agricultural businesses, autonomous power generation means more than just cost savings — it also provides operational stability.

MASWES™ enables businesses to:

- reduce electricity expenses;
- minimize dependence on grid outages;
- eliminate diesel generators and fuel costs;
- supply power to remote locations without building expensive transmission lines;
- quickly relocate the station between different sites as operational needs change.

For farms covering 20–50 hectares, this can translate into annual savings of thousands of euros

while significantly improving energy independence.

Vineyards Near Hrad Devín: An Example of an Ideal Location

The wine-producing region surrounding [Hrad Devín](#) in Slovakia is an excellent example of an area where hybrid solar and wind generation can achieve outstanding performance. Open hillsides, abundant sunshine, and steady air currents create nearly ideal conditions for a hybrid energy system.

For a vineyard operation, MASWES™ can provide electricity for:

- irrigation pumps;
- refrigeration equipment for product storage;
- weather stations and monitoring systems;
- lighting and administrative facilities;
- charging stations for electric vehicles and agricultural machinery.

An annual production of 40–60 MWh is equivalent to the electricity consumption of approximately 10–15 households and can cover a substantial portion of the energy requirements of a small winery.

Energy Independence as a Competitive Advantage

For agricultural businesses, electricity is one of the major recurring operating expenses. With an annual output of 40–60 MWh and average business electricity prices in Europe ranging from €0.18 to €0.25 per kWh, a farm can offset between €7,200 and €15,000 in electricity costs every year.

In locations that currently rely on diesel generators, the savings can be even greater, as the cost of diesel-generated electricity often exceeds €0.30–0.40 per kWh. As a result, MASWES™ not only delivers energy independence but also provides agribusinesses with a tangible competitive advantage through lower operating costs and improved resilience.

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