



# Powering Your Farm with Free Energy

SolarEdge Smart  
Energy Solutions for  
Agriculture



# / There Has Never Been a Better Time to Adopt Solar Power for Farms

If you consider just the savings in electricity costs by using a free source of power, agrivoltaics makes a lot of sense. Of course you're not just reducing your monthly bills, you're also reducing carbon emissions and your dependency on the electricity grid. No wonder agriculture was one of the first industries to adopt solar systems – driven by economic incentives from government subsidies, tax breaks and financing programs.

Studies show that dual-use farming brings a lot of value added benefits. Crops grown under the partial shade of solar modules benefit from lower soil temperature during the day and warmer soil at night. Less water may be required to irrigate certain crops as a result. Elevated solar modules can provide shade for various livestock. And unused roof space on barns or other structures can be put to work generating free power to drive irrigation pumps and other equipment.

## Solar for farms with more power, more safety, more control

With a SolarEdge smart energy system, you get the peace of mind that comes with choosing the world's #1 PV supplier with the best technology and longest warranties. SolarEdge Power Optimizers harvest more energy from each PV module, contributing to more power delivered over the system's lifetime for lower total cost of ownership (TCO). Your assets and structures are protected with innovative safety features like patented SafeDC™ functionality and arc-fault detection and interruption. And our module-level Monitoring Platform gives you a real-time snapshot of energy production and consumption on your smartphone or PC.



The SolarEdge system for the Oostveen Fruit Farm, The Netherlands, generated 285,660 kWh in the first year - 120% of the promised 237,946 kWh that was offered

## A financially solid company with an unmatched engineering pedigree

SolarEdge is a leading smart energy solutions company, delivering standard-setting products that power our lives and drive future progress. Leveraging world-class engineering and worldwide experience, SolarEdge developed a ground-breaking intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. As a result of this and other innovations, today SolarEdge is the world's #1 solar inverter company in revenue with millions of systems installed in more than 130 countries.

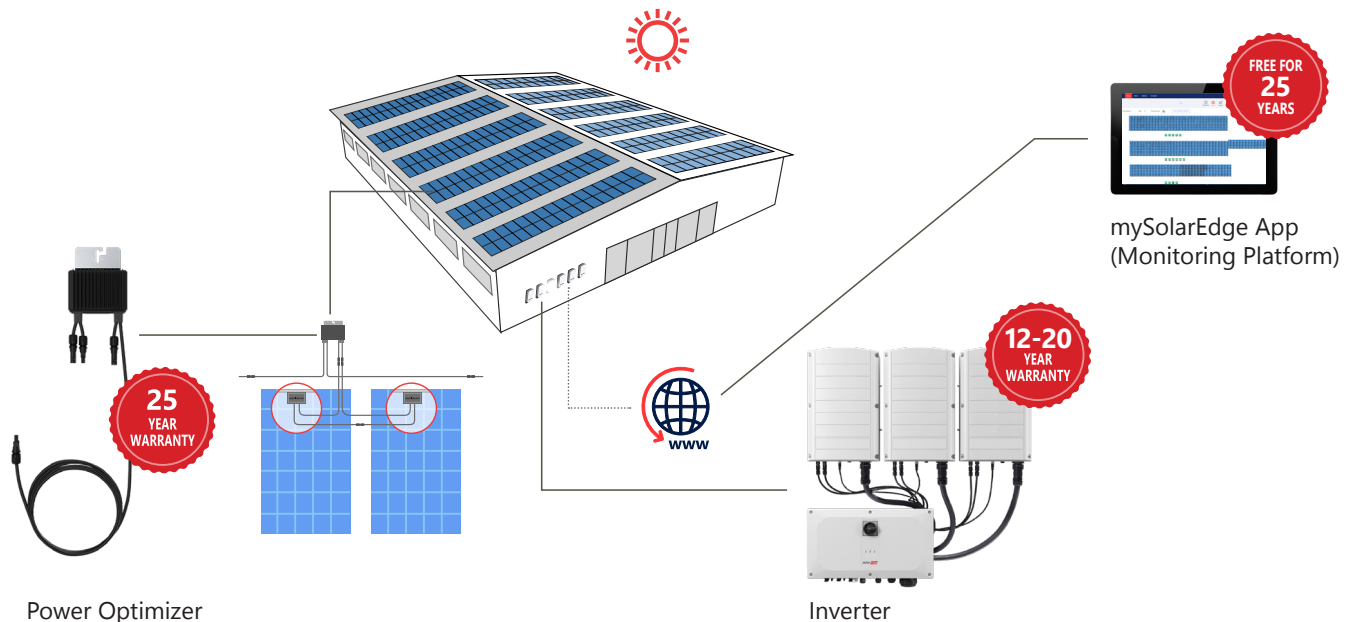
"We just completed a large dairy farm project with 368 modules and eight 11.4kW SolarEdge inverters. In order to reduce utility costs, using the highest quality equipment, we installed SolarEdge inverters and Power Optimizers. Monitoring at the module level allows us to oversee it all and provide our customers with the service they've come to expect. Plus, the user app provides a great way for clients to track their investment and gain peace of mind."

Kaleb Rabe, Rabe Hardware



# / What You Get With Your SolarEdge Solar System

SolarEdge premium solar energy components work together in a seamless, farm-friendly ecosystem that can handle a variety of climate, terrain, livestock, crop and other agriculture challenges. Your SolarEdge PV system is comprised of these primary components:



## Power Optimizers

Photovoltaic (PV) modules are used to collect the solar energy. In every solar energy system, there are energy mismatches between PV modules caused by different issues such as shading, soiling, manufacturing tolerance, and more.

To remedy this, a SolarEdge Power Optimizer is connected to each solar module to ensure it produces the maximum amount of power and does not impact other modules in the same string. They also enable more design flexibility where solar modules can be installed at different angles and azimuths. Compare this with traditional inverters where the weakest PV module reduces the performance of all modules in the same string.

Each SolarEdge Power Optimizer is ammonia resistant to corrosion from ammonia gases and is backed with a 25-year warranty.

## PV inverters

PV inverters convert the DC power received from the solar modules to AC power which you can use and also sell back to the grid\*. SolarEdge inverters are extremely efficient, compact, ammonia resistant to corrosion from ammonia gases, and IP65 rated to work in harsh environmental conditions.

SolarEdge inverters are backed with a 12-year warranty which can be extended to 20 years.

\* Depending on the regulations of each country



Sveigaard pig farm, Denmark

## SafeDC™

To ensure the safety of your property or livestock in case of an emergency, SolarEdge includes a variety of exclusive safety features, including SafeDC™. This built-in module-level safety technology minimizes the risk of electrocution. Whenever the grid is down or the inverter is shut down during maintenance or due to an emergency, the system automatically switches to safety mode, wherein the output voltage of each module is reduced to a touch-safe 1V in order to maintain string voltage below risk levels.

## mySolarEdge app

This easy to use application, free for 25 years, runs on your computer or mobile device and provides you with a real-time dashboard of your energy production and consumption. Your installer has their own application – the SolarEdge Monitoring Platform - which provides remote monitoring down to the module level, easily identifying any under-performing modules. Compare this convenience with competitive systems where identifying a faulty module can require a drone with an infrared thermal camera or a visit by the installer.

PV systems powered by the SolarEdge solution work together seamlessly to provide you with maximum power and efficiency while reducing your energy bills and dependency on your local utility grid.



Kibbutz Gal-Ed, Israel

**“Conditions in an agricultural environment place high demands on solar modules and inverters. With the combination of Canadian Solar modules and SolarEdge, we provide agricultural companies with very high yield and safety.”**

**Theo Hartgers, Zonnepanelen op de dak BV**

For more information on how you can run your farm on sun, please contact us:

## About SolarEdge

SolarEdge is a global leader in smart energy. By deploying world-class engineering capabilities and a relentless focus on innovation, we create smart energy products and complete solutions that power our lives and drive future progress.

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