



SMA Commercial Energy Solution helps the dairy farm save energy costs and supply it with clean solar power 24/7. Now, an additional saving opportunity has arisen from optimized energy consumption.

The dairy farm consumes around 40,000 kWh of electricity a year. In addition to the milking machines and automatic feeding systems, other loads in the cowshed and neighboring buildings need to be supplied with power. In order to save money on energy costs and generate green solar power supply in the future, the farm operator has decided in favor of SMA Commercial Energy Solution with two [Sunny Tripower CORE1](#) inverters as well as the commercial storage system, SMA Storage Business.

With a 97% self-sufficiency rate, it reduces electricity purchases to almost zero

In addition to a 100 kW solar system, which modules were installed on the roof of the cowshed, the farmer's Energy Management System also has the SMA Storage battery with a capacity of 67 kWh and a [Sunny Tripower Storage 60](#) battery



This gives the farm a 97% independence rate, and the purchase of electricity from the grid is almost 0%. The entire system was installed by the SMA Solar professional partner Vetter.

The goal

Only use self-generated power and remain independent from grid operators over time.

The solution

To use SMA Commercial Energy Solution for the purpose of generating and storing clean power, as well as the optimal control for monitoring energy flows during operation.

The result

1. Up to 100% supply with your own electricity
2. Additional cost savings thanks to optimized consumption flows
3. Clearly displayed and easily accessible viewing of the energy flows located in Sunny Portal powered by ennexOS, or in the SMA Energy app



The [SMA Data Manager M](#) is an essential part of SMA Commercial Energy Solution. The energy manager monitors and analyzes all of the farm's energy flows and sends the data to the [Sunny Portal powered by ennexOS](#) or the SMA Energy app on a smartphone or tablet, where the data are then clearly visualized. Through this process, the dairy farm owner now knows that it is not the milking process that consumes most of the energy, but rather the mixing of the feed and the cleaning of the milking equipment. He carries out these two daily routine processes in the morning or afternoon, if green power from his own PV system is available. In doing so, he avoids expensive load peaks and prevents purchasing power from the grid.





„This installation is a worthwhile investment, even on cloudy days with little sunshine. Even the installer didn't expect such results. When it pays for itself, the energy won't cost me a cent more.“

Michael Nägele

dairy farmer

At night, power comes from the storage system

During the night hours, the electricity requirement of the barn is low. With a herd of around 80 dairy cows, the energy required for night is always 100% covered by the energy stored during the day, even on cloudy days with little sunshine. "Even the installer didn't expect such results," said Michael.

Solar power offers great opportunities for agriculture



Commercial Energy Solution make it easy for farmers not only to generate solar power, but also to optimally control and store solar power and thus use it flexibly. For PV systems above 100 kW, the self-produced electricity can be sold using [SMA Data Manager M](#) and direct selling [SMA SPOT](#), thereby generating additional yields.

SUNNY PORTAL
powered by ennexOS



SMA Commercial Energy Solution

Save up to 80% on energy costs with solar power.



Contact

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