



SMA COMMERCIAL ENERGY SOLUTION

# FULL OF ENERGY

Empower your business with efficiency, cost savings, and a reduced carbon footprint.





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# FULL OF ENERGY

The sun delivers valuable energy – completely free of charge. Make use of it for your business and think holistically: go beyond PV energy generation. Combine efficient storage, intelligent e-mobility, heating and integrated energy management into one solution full of energy.

## Everything from a single source.

The **SMA Commercial Energy Solution** is built on SMA quality standards and represents the perfect fusion of high-quality hardware, intelligent software, and exceptional services. Its modular design simplifies the initial setup, and the solution can be effortlessly upgraded to align with your budget and individual needs at any time, without any hassle.



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## Generate solar power for optimal consumption.

The **SMA Commercial Solar Solution** empowers your business to permanently reduce energy costs, beginning today. Use the unlimited power of the sun, full of energy, to generate cost-effective and sustainable solar power. That means no more worries about rising electricity prices and a reduced carbon footprint.

### Turn your business carbon friendly.

The SMA Commercial Energy Solution offers a complete lean and modular energy system. Take control of your energy future with a PV system that optimizes your self-sufficiency. By covering more of your energy needs independently, you reduce reliance on the utility grid, leading to a quicker ROI. Rather than feeding excess power back for a fraction of its value, consider storing it in a battery for later use. Discover how a storage solution can enhance your independence from utility companies on the following pages.

### Benefits of the SMA Commercial Solar Solution

- More than 40 years of experience in PV technology.
- SMA quality standards.
- Cuts your energy costs easily and permanently.
- Enables you to become more independent from rising electricity prices.
- Allows adding storage, e-mobility, or heating, anytime.



Sustainable and cost-effective use of your energy.



Reliable planning and protection against rising energy prices.



Rapid ROI and seamless integration that grows with your business.



Enhanced corporate image thanks to a demonstrated decrease in carbon footprint.

Sunny Tripower 125 PV inverter\*

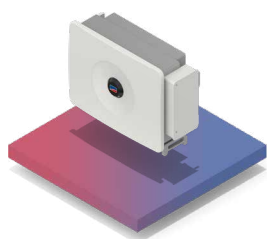
## More power, enhanced integration.

Drawing from more than 40 years of photovoltaic expertise, the Sunny Tripower 125\* enables highly efficient and economical ground-mounted PV systems and complex rooftop systems. It integrates seamlessly into the SMA Commercial Energy Solution and offers you higher yields. Built-in safety features like SMA ShadeFix and SMA Arcfix, along with SMA Smart Connected technology that automatically monitors and troubleshoots, ensure reliable operation. The Sunny Tripower 125\* is a good fit for PV modules with high DC currents – as well for bifacial modules.

Backed by the renowned SMA service, this advanced solution delivers comprehensive, cost-effective energy generation, safeguarding you against escalating energy prices and making this solution a future-proof decision.

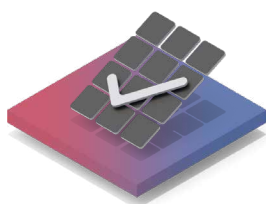


## Components of the solution.



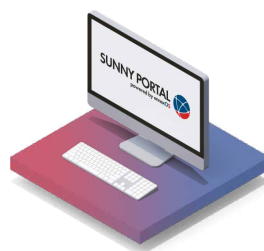
### PV inverter

The Sunny Tripower 125\* is an outstanding solution for commercial energy generation, completing a powerful product range alongside the Sunny Tripower X and Sunny Tripower CORE1, covering capacities up to 125 kW.



### SMA ShadeFix

Proprietary and integrated inverter capability that optimizes the yield of PV systems in every situation – even in the shade.



### Sunny Portal powered by ennexOS

Enables easy and efficient online monitoring of your SMA Commercial Solar Solution.



### SMA Smart Connected

Premium monitoring service for reliable system monitoring.

\* Expected to be available Q4/2024



## Store solar power and use it flexibly.

Combating load peaks is essential for any company, regardless of its size or industry, as they can significantly inflate energy costs. With the **SMA Commercial Storage Solution**, you can effectively mitigate these peaks by tapping into stored solar energy precisely when your power-demanding equipment requires it most. By increasing the proportion of self-generated electricity in your energy mix, you'll swiftly cut down on energy expenses, ensuring substantial savings for your business.

### Secure your business's energy future and maximize long-term savings.

Combining photovoltaics and battery storage is a smart investment. It brings independence from escalating energy expenses and ensures uninterrupted power supply, even during utility grid outages\*. By integrating more self-generated solar energy into your company's energy mix, the SMA Commercial Storage Solution cuts down peak loads and you can enjoy cost-efficient electricity.

Use solar power with an impressive level of efficiency.

### Benefits of the SMA Commercial Storage Solution

- Optimizes your self-consumption and mitigates peak demand.
- Allows you to enjoy cost-effective electricity rates.
- Helps maintain power continuity as a backup during utility grid outages.\*
- Offers the possibility to use the solution independently of photovoltaics.

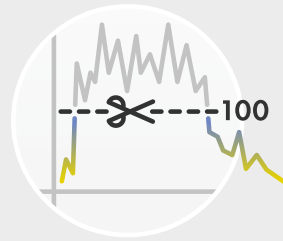




Sustainable and cost-effective use of your energy.



Ideal self-consumption and long term savings.



Mitigated peak demand and energy cost planning for the long term.



Improved use of time-dependent and power-dependent electricity rates.

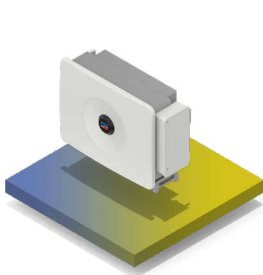
## SMA Commercial Storage Solution

### Packed with power—as much as you need.

Empower your business with the SMA Commercial Storage Solution to seize control over your energy costs today. Whether it's for charging company vehicles, power-demanding equipment or heating, your company needs reasonably priced power – even when the sun doesn't shine. Here's the game-changer: as your demand grows, easily upgrade your energy system to the megawatt range at any time. With up to 8,000 battery cycles and a robust design, it provides an efficient energy supply with impressive returns. Keep track of your energy system effortlessly through Sunny Portal powered by ennexOS or the SMA Energy App, providing continuous monitoring and optimization.

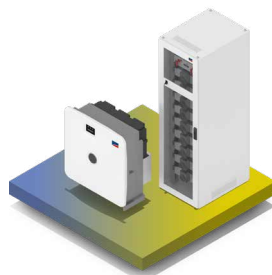


### Components of the solution.



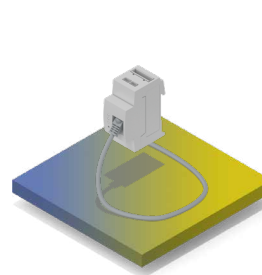
#### PV inverter

Sunny Tripower 125\*, Sunny Tripower X or Sunny Tripower CORE1 convert solar power (direct current) to usable alternating current.



#### SMA Commercial Storage Solution

Temporarily stores solar power and makes it available as needed.



#### SMA Energy Meter

Monitors all energy flows in the system.



#### Sunny Portal & SMA Energy App

Allows to set up simple and efficient online monitoring of your SMA Commercial Energy Solution.



## Manage and distribute solar energy.

Achieving a thorough grasp of your power usage and needs is crucial for significant energy savings. It allows you to gauge how an integrated storage solution can optimize power consumption within your business efficiently, mitigating costly peak loads. When paired with PV, you can seamlessly incorporate energy-intensive operations like heating and EV charging, optimizing the share of self-generated power in your energy mix. This comprehensive approach to energy management brings you substantial savings and enhanced sustainability.

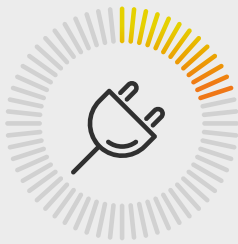
### Enhanced savings with powerful energy management.

Improve your solar investment with the SMA Commercial Energy Solution. Precise energy monitoring and management allows you to exploit the full potential of your solar power. It facilitates efficient energy usage and helps you to mitigate costly load peaks, even while charging your electric vehicle fleet. It's a great solution for boosting efficiency and sustainability in your business operations.

### Benefits of the SMA Commercial Energy Solution

- Precise monitoring and analysis of all energy flows in your company.
- Offers you the data required to make sound decisions on energy management.
- Allows increased self-consumption of the energy you have generated.
- Helps you mitigate costly load peaks.





Sustainable and cost-effective use of your energy.



More self-consumption of solar power.



Monitoring and control of energy flows to avoid load peaks.



One contact for a substantial part of your energy supply.

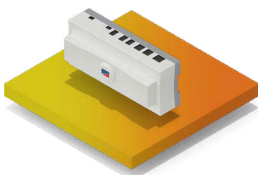
SMA Data Manager M\*

## Powerful energy management and monitoring on-board.

In combination with Sunny Portal powered by ennexOS and the SMA Energy Meter, the SMA Data Manager M\* monitors your energy flows. As a first important step towards saving on energy costs, it offers your company the data and insights you need to use energy economically and increase self-consumption of cheap and sustainable solar energy.

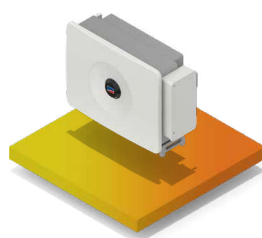


## Components of the solution.



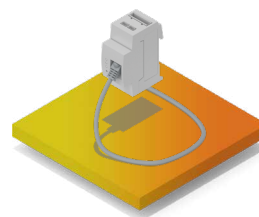
### SMA Data Manager M\*

Energy manager that operates in conjunction with SMA Monitoring and is responsible for communication and overall system monitoring.



### PV inverter

Sunny Tripower 125\*\*, Sunny Tripower X or Sunny Tripower CORE1 convert solar power (direct current) to usable alternating current.



### SMA Energy Meter

Monitors all energy flows in the system.



### Sunny Portal powered by ennexOS

Enables easy and efficient online monitoring of your SMA Commercial Energy Solution.

\* New SMA Data Manager M expected to be available Q3/2024

\*\* Expected to be available Q4/2024



## Charge with solar power.

The **SMA Commercial eMobility Solution** allows you to kick-start your company's mobility transition. It provides you with a straightforward and convenient way of charging your company cars by drawing from your PV system or from the grid. Additionally, the combination of the SMA EV Charger Business and the SMA eMobility Portal offers you the chance to earn money. With the SMA eMobility Portal, user management, invoicing, and monitoring are a breeze – even remotely.

### Turning solar power into mileage.

Whether it's company cars, commercial vehicles, or employee electric cars, the modular SMA Commercial eMobility Solution ensures climate friendly and cost-effective mobility. Leveraging solar power from your PV system, it slashes your mobility costs and liberates you from fossil fuel dependency. Seamlessly integrated into your existing PV system, it's the smart choice for a more sustainable future full of energy.

### Benefits of the SMA Commercial eMobility Solution

- Delivers a holistic solution, seamlessly merging cutting-edge software, hardware, and services.
- Seamlessly integrates into your current setup, with or without PV, ensuring effortless compatibility.
- Safeguards your data in Germany, stored in compliance with stringent cybersecurity laws.
- Grants 5 years of complimentary access to the SMA eMobility Portal for robust system management and monitoring capabilities.



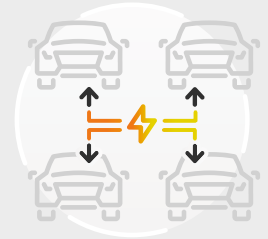
Sustainable and cost-effective e-mobility.



Fast charging with up to 2 x 22kW.



Free use of the versatile SMA eMobility Portal for 5 years.



Increased safety thanks to charge load management.

## SMA Commercial eMobility Solution

### Get the mobility transition moving and benefit from many advantages.

The SMA Commercial eMobility Solution consists of:

#### SMA eMobility Portal:

- the versatile platform for user management, invoicing, and power monitoring.
- 5 years free use included!
- your opportunity to make money with your charger.

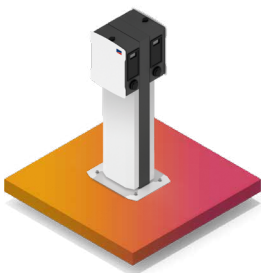
#### SMA EV Charger Business:

- a double charging station for fast charging.
- dynamic load management ensures high charging speed.
- integrated energy meter or compliance with calibration laws.

The SMA Commercial eMobility Solution is designed with you in mind, combining safety, flexibility, and scalability. It features integrated direct current failure monitoring. The solution is suited for both new and existing PV systems, fitting seamlessly into any setting. As your needs grow, the SMA Commercial eMobility Solution can be expanded easily and gradually.



### Components of the solution.



#### SMA EV Charger Business

Charges your electric fleet quickly and conveniently.



#### SMA eMobility Portal

Allows you to visualize your loading processes and manage your user profiles.



#### SMA Onboarding Service

Provides expert advice and assistance with setting up user profiles.





## Heat with solar power.

By adding energy-intensive heating systems such as heat pumps, CHP, and boilers to your **SMA Commercial Energy Solution** you save on heating costs and make your business more carbon-friendly. Storing excess solar energy for heating purposes optimizes the cost-effective use of solar power and increases the share of self-generated energy in your overall energy mix.

### Minimize your heating bill and increase self-consumption.

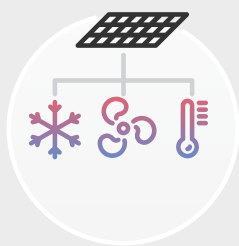
Paired with a heating system, the SMA Commercial Energy Solution optimizes the efficiency of your energy usage by using I/O contacts. With a thermal storage system, you can store additional solar power that you can use to heat your building or water. This helps increase the share of solar power that you consume yourself. This gives your self-consumption a boost. A win-win solution for your wallet and the planet.

#### Benefits

- Allows you to manually integrate power-consuming heating systems such as heat pumps, CHP, and boilers into your energy system.
- Efficiently charges your thermal storage system with surplus solar power when it's available and not needed by other appliances.
- Increases your self-consumption of solar power and reduces your energy bill.



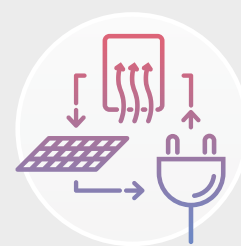
Sustainable and cost-effective use of your energy.



Increased self-consumption of solar power with precise energy monitoring.



Eco-friendly and budget-friendly heating of your premises.



Heating, power generation and consumption combined in one holistic system.

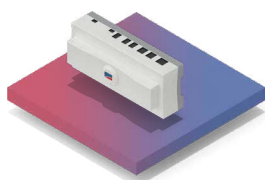
SMA Data Manager M\*

## Cool calculations for your heating supply.

The SMA Data Manager M acts as the central connection point to the ennexOS driven energy management and allows the connection of external devices and applications like heat pumps or other controllable sub-systems. With its high number of integrated I/Os it enables a flexible monitoring of all energy flows in the SMA Commercial Energy Solution and assures the supply with self-generated solar power.

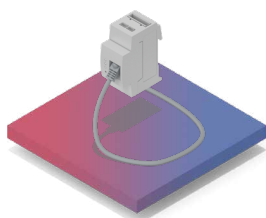


## Components of the solution.



### SMA Data Manager M\*

Energy manager that operates in conjunction with SMA Monitoring and is responsible for communication and overall system monitoring.



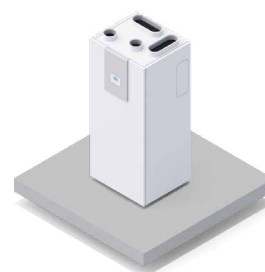
### SMA Energy Meter

Monitors all energy flows in the system.



### Sunny Portal powered by ennexOS

Set up simple and efficient online monitoring of your SMA Commercial Energy Solution.



### Compatible heat pump

Or other power-consuming heating systems that need power to operate.

Basic component

External component

\* New SMA Data Manager M expected to be available Q3/2024



## Grid independence with solar power.

It is possible to be independent from unpredictable electricity costs and still enjoy a reliable electricity supply. The autonomous **SMA Commercial Off-Grid Solution** works anywhere, with and without PV. Even in tough and most remote regions of the world. It is scalable and combines multiple energy sources: PV, wind power, hydropower, cogeneration, or diesel generators.

### Grid-quality solar power.

Combined with battery storage, the SMA Commercial Off-Grid Solution provides reliable, high grid-quality solar power for homes, lodges, commercial and industrial enterprises, and even remote islands. In regions with low electrification rates, it enables sustainable economic development without diesel fuel.

### Benefits of the SMA Commercial Off-Grid Solution

- Enables reliable electricity supply with high grid quality wherever needed.
- Offers unequalled flexibility through modular scalability.
- Can be used with or without grid connection.
- Allows combination of multiple energy sources such as PV, wind power, hydropower, cogeneration or diesel generators.

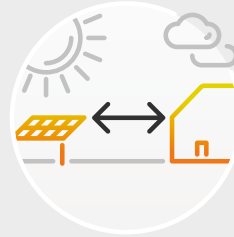




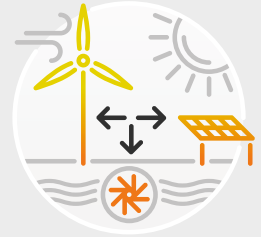
Complete grid independence while saving on electricity and diesel costs.



Modular and expandable for rising energy needs.



AC coupling for long distances between energy sources and loads.



Possibility to combine multiple energy sources.

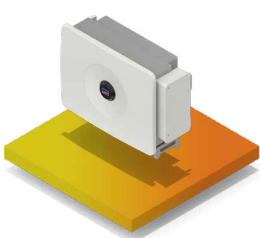
SMA Sunny Island X battery inverter\*

## Holistic grid forming solution.

The Sunny Island X is the heart of your energy system, providing flexible and scalable solutions for both off-grid and on-grid applications. Designed for larger off-grid systems starting from 300 kW, it also supports pure on-grid setups across all performance classes. The approved compatibility to several 3rd party battery manufacturers allows high flexibility of the system design, while the option to connect additional inverters ensures adaptability as your needs grow. With an integrated system manager, a wide operating temperature range up to 60°C ambient temperature, compact design, and high efficiency, the Sunny Island X\* is engineered to be a future-proof off-grid inverter technology.

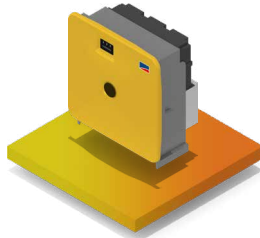


## Components of the solution.



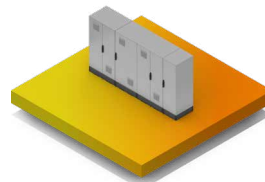
### PV inverter

Sunny Tripower 125\*\*, Sunny Tripower X or Sunny Tripower CORE1 convert solar power to usable alternating current.



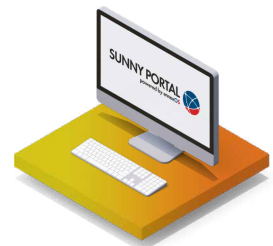
### Battery inverter

Sunny Island X\* manages the off-grid system and ensures grid quality.



### Sunny Island X Connection Box

AC distribution and synchronization panel for energy sources and loads.



### Sunny Portal powered by ennexOS

Set up simple and efficient online monitoring and remote parametrization of your SMA Commercial Energy Solution.

\* Expected to be available 2025

\*\* Expected to be available Q4/2024



# Farmer and energy farmer: an investment that is paying off.

More than ten years ago the German farmer Johannes Schindele turned his farm into a powerhouse for renewable energies. His first step was the installation of a PV system, and by extending his solution with the SMA Commercial Storage Solution and by optimizing his self-consumption, he has achieved 81% of self-sufficiency.

## Facts and figures

- Annual energy consumption 175 MWh.
- 160 kWp PV system + 800 kW biogas plant.
- SMA Commercial Storage Solution boosts self-consumption.
- Payback time estimated at 10 years.
- Self-sufficiency quota: 81%.

## More efficiency for more energy independence – with the SMA Commercial Energy Solution.

Thanks to Schindele's innovative use of the SMA Commercial Energy Solution, including a commercial storage system, he has achieved nearly complete independence from the utility grid. Excess electricity not immediately consumed is stored for later use, ensuring uninterrupted power supply even during cloudy days or at night. With this intelligent energy solution, the farm now boasts an impressive 81% self-sufficiency rate, showcasing the effectiveness and reliability of SMA technology.

## This is how the farm turns production, storage, and consumption of its own solar power into clear benefits:

**The PV system meets the majority of the farm's energy needs.**

- Installation of a 160 kWp PV system and the 228 kWh commercial storage system.

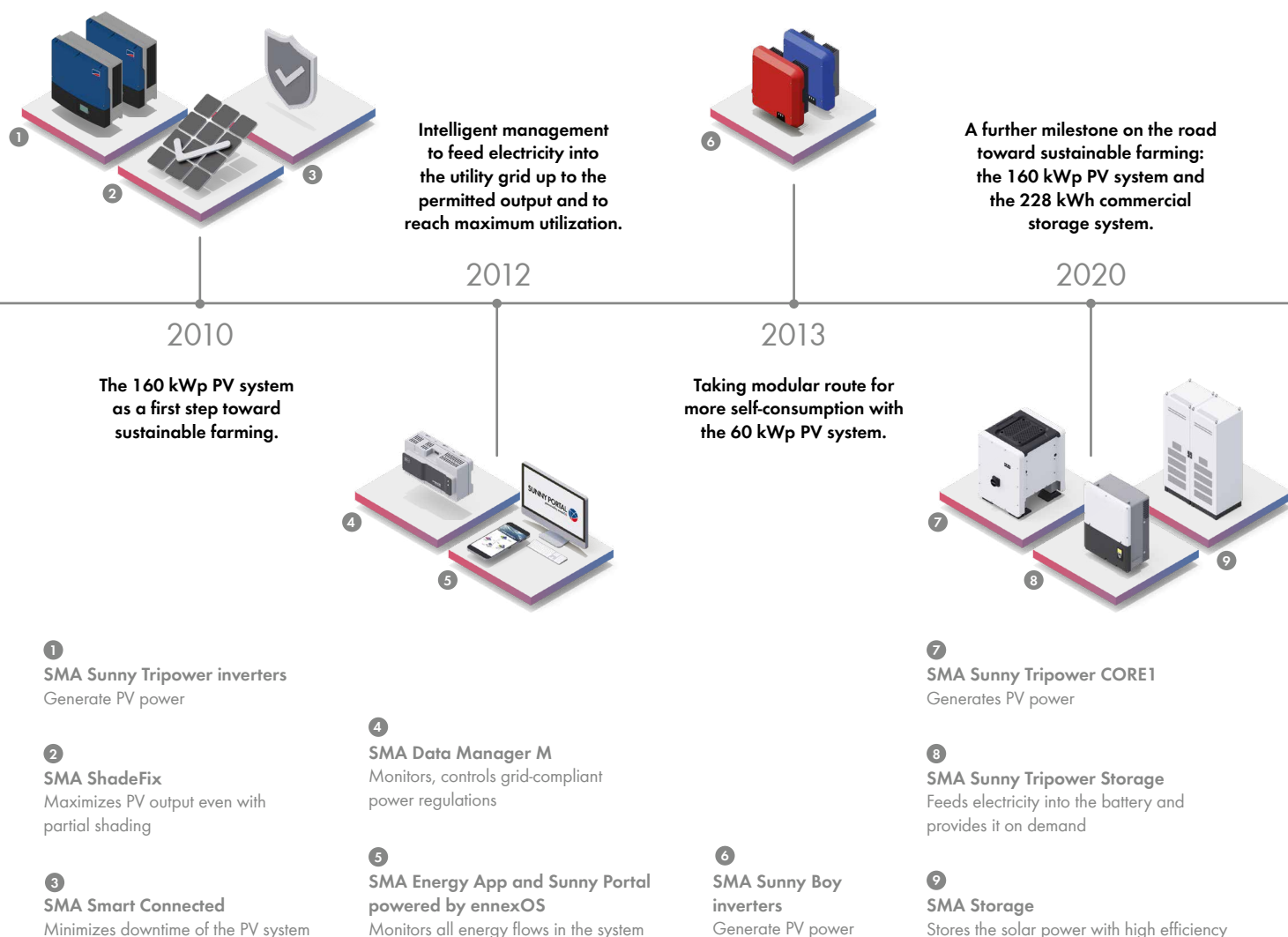
**Empowering energy independence: the impact of the commercial storage system.**

- Storage of unused electricity for flexible access.
- Access to stored electricity instead of purchasing more, saving costs.
- Mitigation of load peaks with battery-stored electricity.

**The energy manager optimizes electricity usage effectively.**

- Monitoring and analysis of energy consumption conducted by the SMA Data Manager M.
- Comprehensive display of all energy system activities provided in the Sunny Portal powered by ennexOS.

## The SMA Commercial Energy Solution at the Schindele farm.







# Entrust your planning to the experts.

Our experts plan custom PV systems for you in all expansion stages, including commercial storage systems and charging infrastructure, always taking into account your needs and requirements and the respective local conditions. Save valuable time and receive the very best planning service for the most efficient energy system.

## A customized concept for your PV installation.

The SMA Planning Service\* provides you with a customized energy concept, which includes comprehensive information materials as a basis for decision-making and a prerequisite for installation.

Scan the QR code and place your faith in our expertise.



## Benefits of the SMA Planning Service

- An extensive cost-efficiency analysis, including remuneration models and calculation of ROI.
- Recommendation of an operating mode for increased self-consumption or peak-load shaving.
- Accounting of CO<sub>2</sub> savings.
- Project documentation

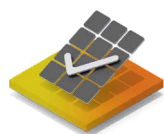
# This is the power of SMA.

With over 40 years of pioneering experience, SMA has been at the forefront of revolutionizing decentralized energy solutions worldwide. Our commitment to excellence is evident in every aspect of our solutions and services.

At our state-of-the-art test centers in Germany, we ensure high quality and reliability. Our products undergo rigorous testing to meet international standards, guaranteeing optimal performance even in harsh conditions, from scorching deserts to icy mountaintops. The SMA Solar Academy offers expert training and resources to make sure installers know our products

through and through and provide our customers with the best possible service.

With SMA, you're not just investing in the right solution – you're investing in a sustainable energy future backed by decades of expertise, cutting-edge technology, and unparalleled support.



## SMA ShadeFix

It is not always possible to prevent dormer windows, chimneys, trees and other obstructions from casting shadows on PV modules. The proprietary integrated software feature optimizes your energy yield automatically and in every situation – even in the shade.



## SMA Smart Connected

In case of malfunction, our free inverter monitoring function automatically provides your installer with the right diagnosis so they can service the device with pinpoint accuracy, minimizing downtimes for your system.



## SMA Energy app

The SMA Energy app allows you to keep track of your business's energy balance at a glance. You can see exactly whether solar power or grid current are currently being used and you can also charge your electric vehicle conveniently via your smartphone.



## SMA services and warranties

Our SMA warranty gives you peace of mind.

- Free replacement inverter with all necessary updates, spare parts or repair provided according to service requirement
- Minimum downtime and safeguarding of your yields
- Optional extended warranty

From hotline support to reliable service on-site, we are there for you when you need us. To enable us to process your inquiries more quickly, please register in the SMA Online Service Center.



SMA Online  
Service Center



**SMA.de/en**

