

# SMA SERVICE FOR PV POWER PLANTS



# SMA SERVICE

## Top Performance and Maximum Yields

One thing is certain: PV power plants are investments in the future. Successful commissioning is an important milestone in your project. What remains crucial is the service lifecycle of your PV system.

### A Strong Team by Your Side

When service is needed, we are there for you immediately. Our SMA Service Line employees perform the initial error analyses and provide extensive telephone support. Thanks to our comprehensive service network, our team is available wherever

service is needed, anywhere in the world and as quickly as possible. So you can be sure that your system will be back in operation quickly.

In addition to our reliable support, our team ensures that we tap the full potential of your PV power plant. Upon request, we also take on regular maintenance and real-time monitoring of your inverters.

### That's What We Call Service

Today, we can look back on more than 30 years of service experience. We want to

continue to support and inspire you with our products and services, and the latest surveys show that we are succeeding. For the third consecutive time, SMA was selected as the most popular brand in the inverter industry.\* According to the survey, what impresses SMA customers most of all is our outstanding, reliable service. Don't leave anything regarding your PV project to chance. Rely on the manufacturer expertise of SMA. For enhanced system reliability. For greater success.

\*IMS Research 2012-2014



### We Are the Right Service Partner

- ✓ Comprehensive global service network: local presence, fast response times
- ✓ Professional support backed by many years of field experience
- ✓ Long-term availability of original parts
- ✓ Cost certainty from reliable spare parts inventory management
- ✓ Proactive service with intelligent error detection and remote updates
- ✓ Honored as the best service provider in the PV industry

# OUR SERVICES

## Full Service for the Entire System Lifecycle

Are you focused on optimal system performance and high yields? Do you want your system to be safely connected to the grid and to produce the desired output right away? Then SMA has the right services for you. Whether the issue is commissioning, preventative maintenance, extending the inverter warranty, spare parts management or repairs—we will support you throughout the entire life cycle of your PV power station and will see to it that your system generates maximum yields. Our service offer is the result of more than 30 years of experience in project support.

### SMA Operations & Maintenance

Of course, you can also put the entire technical management of your power plant in our hands. With our Service Operations and Maintenance, we check daily whether your PV system is running as smoothly as possible. If challenges arise, our experts will drive to your plant on the very same day and immediately restore smooth operation.

For further information on this comprehensive service please refer to page 10 and 11.









# COMMISSIONING

## Superior System Performance Right from the Start

Professional commissioning is the key to a successful PV project. To ensure that your system is profitable long-term, it has to be connected to the grid safely and reliably and produce the optimal output right away.

During commissioning, our service experts check that your inverters and medium-voltage components are correctly installed and see to it that all necessary prerequisites for successful grid connection have been met. In addition, SMA adjusts the equipment settings, performs a thorough function test, and completes the commissioning with a grid-failure test.

All over the world, our customers trust the commissioning our service experts carry out. That's not surprising, because with an installed base of over 35 GW, we have the most practical experience in the industry. Our partners benefit from projects being completed on time, or even before the planned commercial commissioning.



### Advantages at a Glance:

- Safe, proper commissioning of SMA components confirmed by SMA experts
- Stable, optimized operation of your PV system – from day one
- Prevention of consequential damages and fault-related downtime







# PREVENTATIVE MAINTENANCE

## Ensuring Maximum Operational Reliability

More power, greater efficiency, greater profitability: Regular maintenance improves the performance of your PV system and at the same time minimizes the risk of a potential system shutdown. Our SMA experts know your PV system inside and out and know how to keep your inverter at peak performance – even in difficult ambient conditions.

As part of this service, our service technicians carefully inspect your inverters and medium-voltage components, perform necessary updates and clean important equipment components. Careful error analyses and maintenance work round out the portfolio of services, making it possible to promptly counteract any potential power reduction.

Depending on the size of the system, annual SMA maintenance services include a 50-point inspection with a total of 17 function tests.

### Advantages at a Glance:

- No unexpected malfunctions or hidden costs
- Adherence to maintenance intervals is ensured
- System downtime is prevented
- Yields are improved

# EXTENDED WARRANTY

## Future-Proof Your Investment

Your goals: to maximize the profit of your PV system and minimize the risks. SMA supports you in this area, providing all inverters and medium voltage components with a five-year factory warranty. During this period we offer you maximum security. If service is needed, our service team will support you and analyze potential error messages by remote connection. If the issue can not be resolved by our Service Line, our technicians will come to your system and ensure that it resumes flawless operation. And if a component needs to be replaced, you will get it free of charge and as quickly possible.

An extended warranty\* is a sensible choice and well worth it as it allows you to take advantage of this full service after the factory warranty ends. It protects you against unexpected costs and offers additional security by optimizing the internal rate of return for project developers, energy suppliers and system operators.

Not all extended warranties are created equal, compare SMA's Extended Warranty which includes all diagnostic services, repair labor and replacement parts. When you select the SMA Extended Warranty, you choose the stability of a guarantee backed by the most trusted brand in the business.

### Advantages at a Glance:

- Optimization of the internal rate of return
- Excellent price certainty for entire service lifecycle of the equipment
- Quick resumption of system operation when service is needed
- Assured availability of replacement parts
- Highly qualified experts with many years of service experience

\*Medium-voltage components are excluded from the extended warranty.







# SMA OPERATIONS & MAINTENANCE

## Managing Your PV System's Technical Operations

Even the best technology has to be checked periodically and needs extensive maintenance. Moreover, a properly maintained and serviced system can generate up to 30 percent better returns. SMA has the right offer for you.

With our SMA Operations & Maintenance Service, we offer full, comprehensive service. We manage all the technical operations of your PV system. This includes additional services such as thermal imaging

and remote PV system monitoring, as well as module cleaning and vegetation control. After all, dirty modules, shadows and proliferation of plants pose a risk to optimal system operation and diminish your yields.

Put the technical operation of your system into the hands of experienced SMA experts and profit from optimal system performance, high yields and the assurance that your system is running smoothly, at all times.





## We offer the following two packages upon request:

### O&M Preventative

- Visual inspection of transformers, housing, inverters, wiring, racking and more
- Annual preventative inverter maintenance
- Detailed maintenance reports
- Thermoanalysis of electrical components to identify potential trouble spots
- Removal of vegetation and dirt from system components
- Remote monitoring with 24-hour customer support

### O&M Proactive

- All the advantages of the Preventative package
- DC wiring as well as maintenance and performance testing of electrical equipment
- Maintenance of racks
- Troubleshooting and calibration of energy meters
- Examination of error messages and immediate repairs up to a predefined amount
- Emergency service
- Spare parts inventory management
- Warranty administration

If preferred, you can also take advantage of additional individual services such as module cleaning and landscape maintenance around your PV system.







# SMA SOLAR MONITORING CENTER

## Keeping Close Track of Your Investment

Major investments require a high degree of security. For that reason, SMA keeps a close eye on your PV system. You profit from both our full-service protection and from a higher return on investment (ROI).

In our SMA Solar Monitoring Center, service experts remotely monitor your inverters in real time and make sure that your system functions as planned and your profits stay

on track. For this, we use the most up-to-date technology to analyze power output and detect potential problems.

Because all relevant data is available to us in raw format, we can respond immediately and proactively, and take whatever steps are necessary. We resolve potential irregularities either directly by remote access or on site. In addition, in the case of

abnormalities, we immediately get in touch with a contact person of your choice.

With SMA Remote Service you can sit back, relax, and concentrate on your business while SMA tends to your PV system and optimizes its performance. This service is included in SMA Operations & Maintenance Service. Upon request, remote monitoring can also be purchased separately.





70 MW PV-Power Plant in Kagoshima, Japan

# COMMISSIONED: JAPAN'S LARGEST PV POWER PLANT

## Service Team Successfully Handles All Challenges

The 70-megawatt system in Kagoshima is a good example of how important it is to have the right service partner at your side—someone with broad experience, who can respond to unexpected events in a flexible manner.

With an international service team hailing from Korea, Thailand, India and Germany, SMA provided substantial and active support during the construction of the PV system. The service technicians successfully

handled all sorts of challenges, including a volcanic eruption and torrential rain with flooding and lightning strikes.

In 2013, the plant was commissioned on time, after only 13 months of construction. This success resulted in SMA securing the maintenance contract for the plant for the coming years. The facility will be managed by an SMA Service team located right in Japan, so the customer will always have a local contact person.





# OPERATIONS & MAINTENANCE IN CANADA

## Top Performance and Maximum Planning Security

About 130 SMA central inverters Sunny Central 800CP-US with a 98.7 percent degree of efficiency are currently operating in the 100-megawatt plant in Canada. The system, which is the largest PV power plant in Canada, is located in Haldimand County, Ontario.

Since 2014, SMA has been managing the entire technical operation, thereby guaranteeing smooth and continuous plant operation as well as top performance and maximum planning security.

SMA's comprehensive service covers both the inverters and the medium-voltage components, modules, racks, all wiring, as well as vegetation and system enclosure. The service includes repairs, device replacement, visual inspections and maintenance. Here, the focus is always on maximum efficiency and system profitability, even under unfavorable climate conditions.

