

## BENNING SOLAR Portal

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Help

Login



## Operating Instructions

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For the currently applicable data protection regulations please go to the BENNING SOLAR Portal: <http://www.portal.benning-solar.de>

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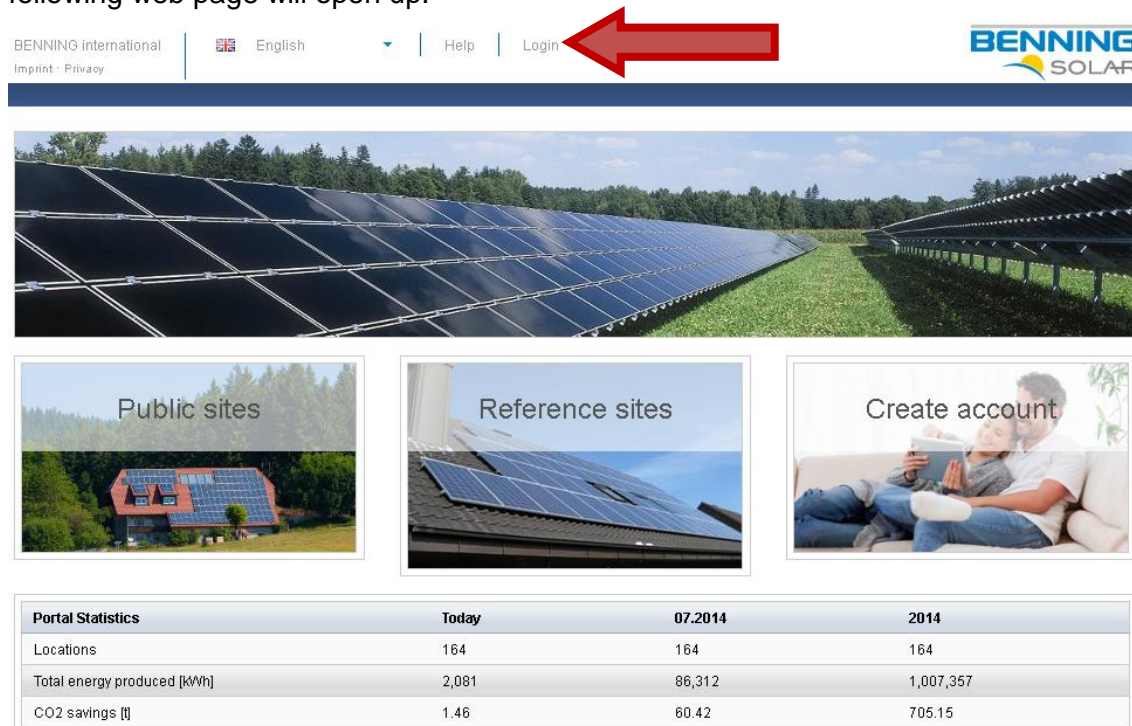
## 1 General Notes

Thank you for purchasing a BENNING photovoltaic inverter. This document provides you with simple instructions on how to setup your photovoltaic inverter in the BENNING SOLAR Portal.

The BENNING SOLAR Portal enables you to view the status of your PV system and your yields from anywhere and at any time.

## 2 First Steps

Call up the website: <http://www.portal.benning-solar.com/> in your Internet browser. The following web page will open up:

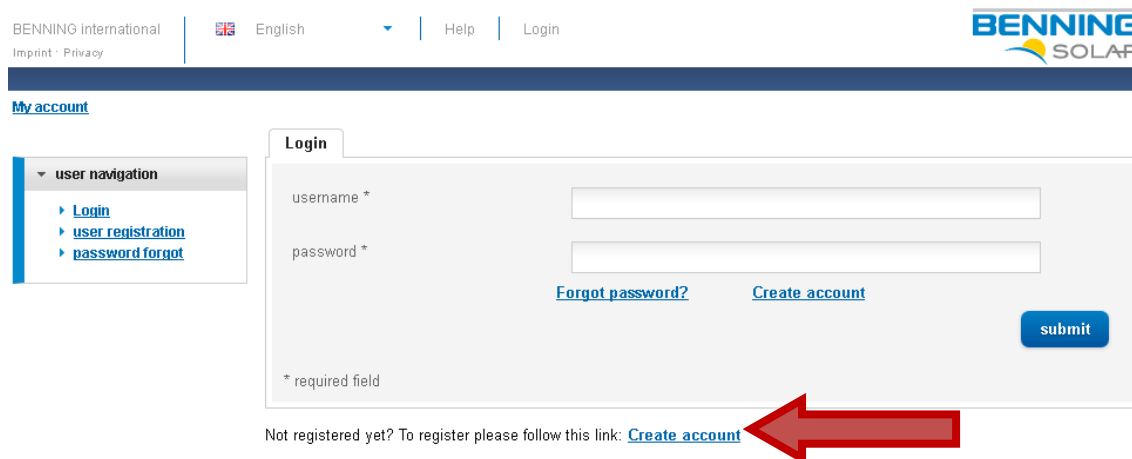


Portal Statistics	Today	07.2014	2014
Locations	164	164	164
Total energy produced [kWh]	2,081	86,312	1,007,357
CO2 savings [t]	1.46	60.42	705.15

Click on "Login" to register with the BENNING SOLAR Portal.

### 2.1 User registration

If you do not have a user ID yet, please click on "Create account"; otherwise continue with Chapter 2.2.



Not registered yet? To register please follow this link: [Create account](#)

Complete the registration form and confirm by clicking on “send”.

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[My account](#)

▼ user navigation

▶ [Login](#)

▶ [user registration](#)

▶ [password forgot](#)

registration

lastname \*

Mustermann

firstname \*

Max

email address \*

max@mustermann.de

username \*

max.mustermann

password \*

••••••

password confirm \*

••••••

company name

care of

street \*

Longstreet 123

postcode \*

12345

city \*

Draftcity

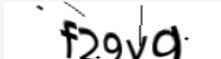
country:

United States ▼

accept terms of use \*


☐

[\(show terms of use\)](#)



f29vq

\* required field



submit

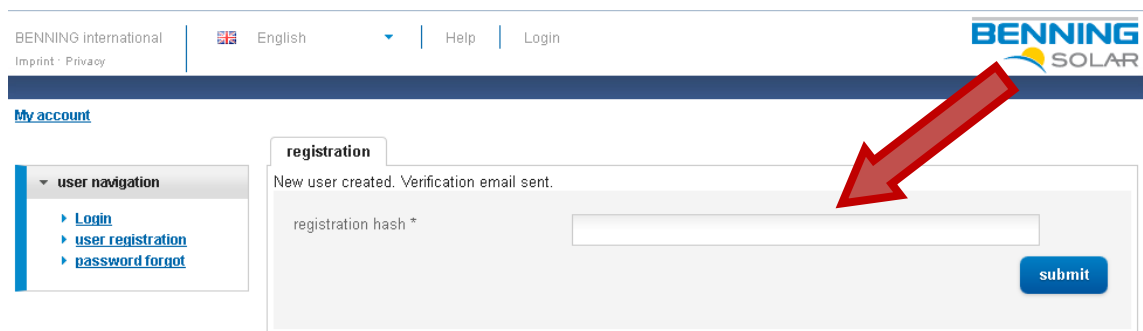
Click on “Show terms of use” to access the BENNING SOLAR Portal terms of use.

You will receive an email with a link.  
Click on the link to activate your user account.

Benutzer-Registrierung  
Benutzername : max.mustermann  
Zum Bestätigen hier klicken : <http://www.portal.benning-solar.com/user/registration/activate?activate=740335cb811a86d5886c3533cb0b70a8f7b5b6a6>  
oder den folgenden Code auf der Webseite einfügen: 740335cb811a86d5886c3533cb0b70a8f7b5b6a6

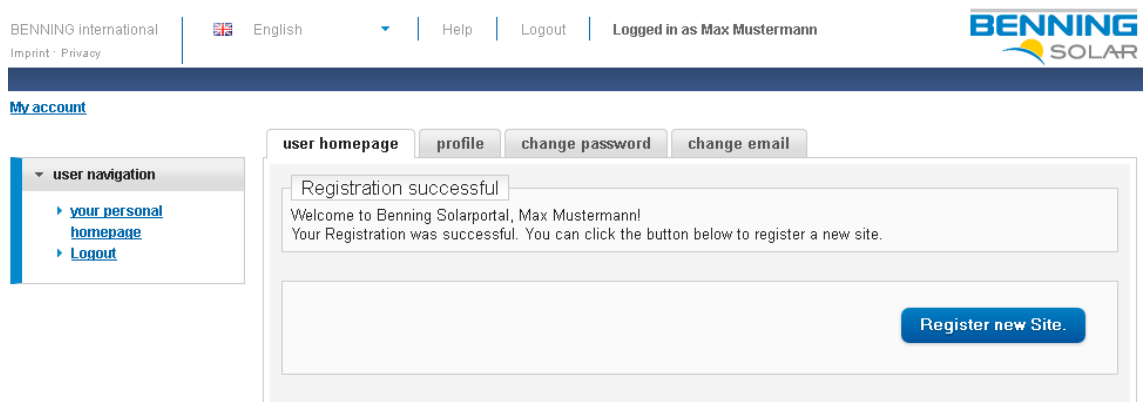
If your email programme does not support this function, please copy the code into the appropriate box on the web page.

Benutzer-Registrierung  
Benutzername : max.mustermann  
Zum Bestätigen hier klicken : <http://www.portal.benning-solar.com/user/registration/activate?activate=740335cb811a86d5886c3533cb0b70a8f7b5b6a6>  
oder den folgenden Code auf der Webseite einfügen: 740335cb811a86d5886c3533cb0b70a8f7b5b6a6



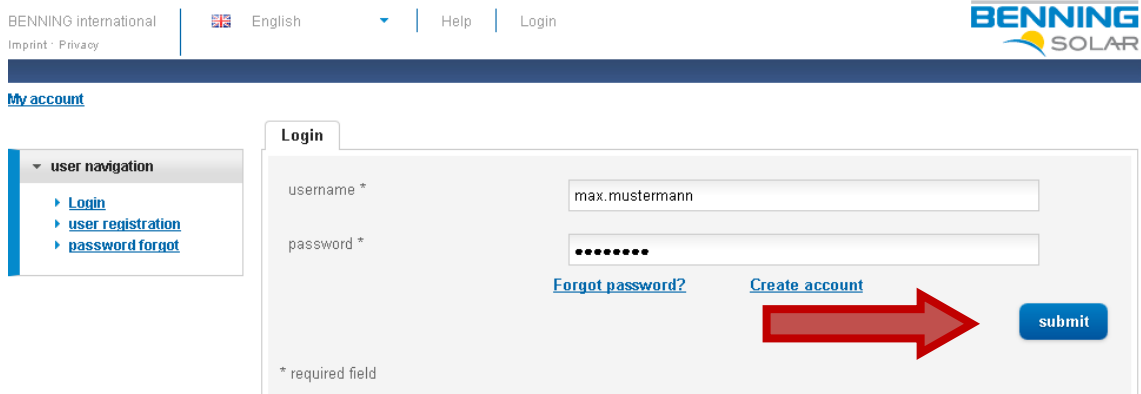
Once you have completed this procedure, either by clicking on the link in your email or via the form on the website, the following page will open with confirmation of your registration.

You are now automatically registered with the Portal.  
Continue with Chapter 2.2 "Login".



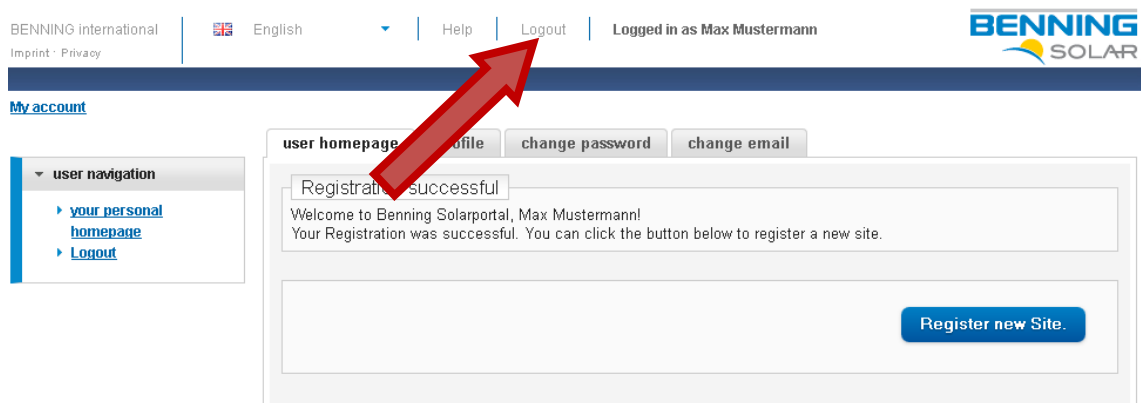
## 2.2 Login

Login with your user name and password. Your start page will now open.



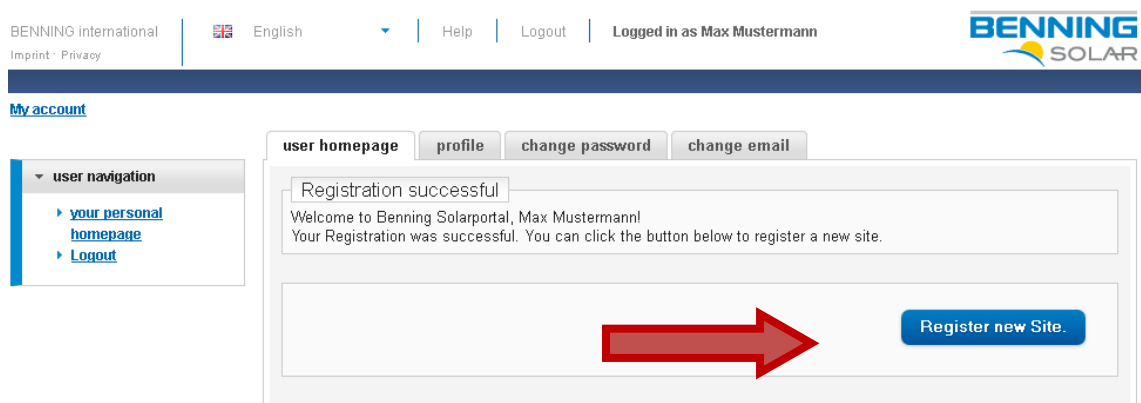
## 2.3 Logout

To log out of the BENNING SOLAR Portal click on the “Logout” button.



## 2.4 Registering and configuring a location

Click on the “Register new location” button in order to create a location.



Complete the following form.

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Logout

Logged in as Max Mustermann

[My account](#)

user navigation

[your personal homepage](#)  
[Logout](#)

site registration

sitename \*   
 company name   
 care of   
 street \*   
 postcode \*   
 city \*   
 country:   
 timezone \*   
 notes   
 is public ☒ **Info**  
 \* required field

[Cancel](#) [save](#)

Tick "Public" if you wish to allow all users of the SOLAR Portal to view your location.  
Confirm your entries by clicking on "Save".

You will receive a location ID and a location password.

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Logout

Logged in as Max Mustermann

[My account](#) | [at Home](#)

user navigation

[your personal homepage](#)  
[Logout](#)

at Home

[site overview](#)

inverters:  
[no inverters yet](#)

overview

profile

gallery

users

reporting

troubleshooting

logbook

Registration successful

Thank you very much for registering the new site.

at Home (Id: 13370)

**This site has no inverters registered yet.**

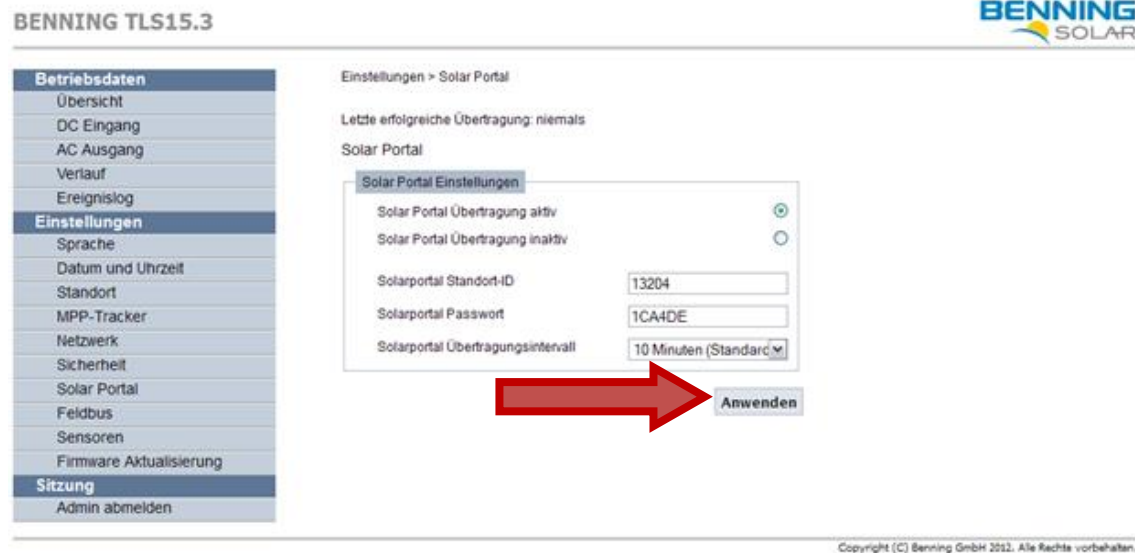
Please add the following inverter(s):

Site id: 13370  
 Site password: E2E993



## 2.5 Assigning a location to devices

Follow the instructions in the “Installation & Operating Instructions” of your photovoltaic inverter to log in to the integrated web server of your inverter. Navigate to the page “Solarportal”.



**BENNING TLS15.3**

**BENNING SOLAR**

Einstellungen > Solar Portal

Letzte erfolgreiche Übertragung: niemals

Solar Portal

**Solar Portal Einstellungen**

Solar Portal Übertragung aktiv ☒

Solar Portal Übertragung inaktiv ☐

Solarportal Standort-ID: 13204

Solarportal Passwort: 1CA4DE

Solarportal Übertragungsintervall: 10 Minuten (Standard)

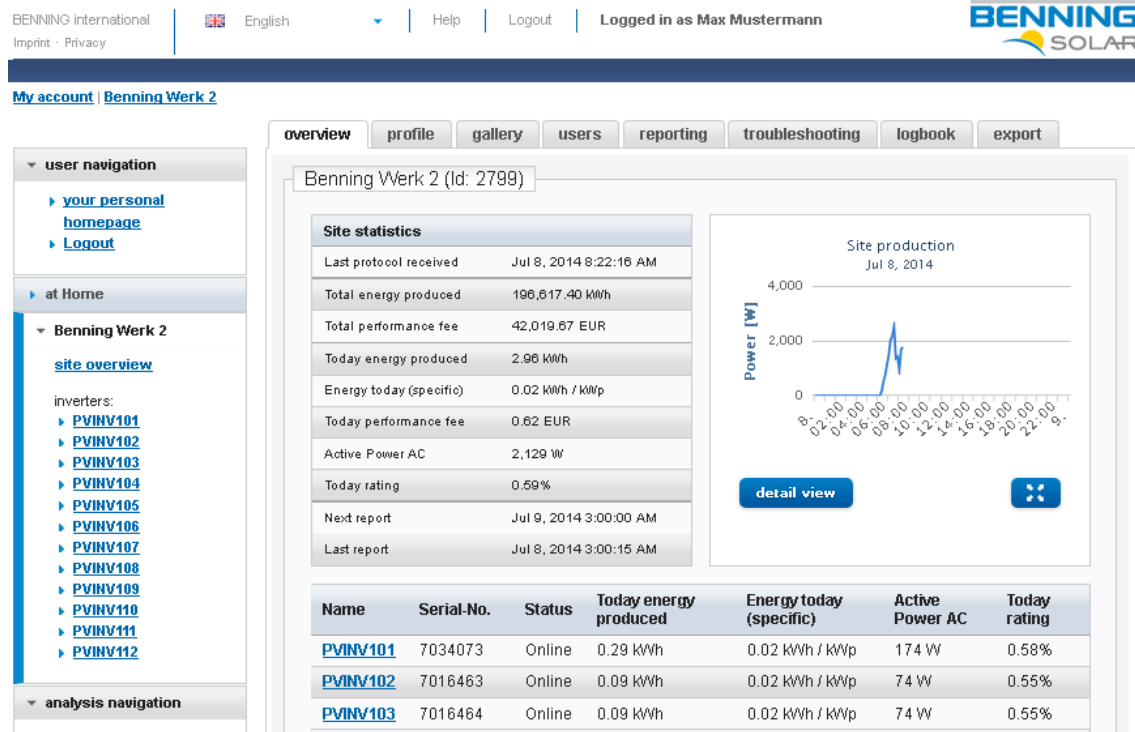
**Anwenden**

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Enter your location ID and your location password in the appropriate boxes.

Next confirm by clicking on “Apply”.

When you then change to the BENNING SOLAR Portal, you will see your inverter and your location; this may take a few minutes.



BENNING international | English | Help | Logout | Logged in as Max Mustermann

**BENNING SOLAR**

My account | Benning Werk 2

**user navigation**

- your personal homepage
- Logout
- at Home
- Benning Werk 2**
  - site overview
  - inverters:
    - PVINV101
    - PVINV102
    - PVINV103
    - PVINV104
    - PVINV105
    - PVINV106
    - PVINV107
    - PVINV108
    - PVINV109
    - PVINV110
    - PVINV111
    - PVINV112
- analysis navigation
  - Management

**overview** | profile | gallery | users | reporting | troubleshooting | logbook | export

Benning Werk 2 (Id: 2799)

**Site statistics**

Last protocol received	Jul 8, 2014 8:22:16 AM
Total energy produced	196,617.40 kWh
Total performance fee	42,019.67 EUR
Today energy produced	2.96 kWh
Energy today (specific)	0.02 kWh / kWp
Today performance fee	0.62 EUR
Active Power AC	2,129 W
Today rating	0.59%
Next report	Jul 9, 2014 3:00:00 AM
Last report	Jul 8, 2014 3:00:15 AM

**Site production**  
Jul 8, 2014

Power [W]

4,000  
2,000  
0

0:00 02:00 04:00 06:00 08:00 10:00 12:00 14:00 16:00 18:00 20:00 22:00 9.

**detail view**

Name	Serial-No.	Status	Today energy produced	Energy today (specific)	Active Power AC	Today rating
PVINV101	7034073	Online	0.29 kWh	0.02 kWh / kWp	174 W	0.58%
PVINV102	7016463	Online	0.09 kWh	0.02 kWh / kWp	74 W	0.55%
PVINV103	7016464	Online	0.09 kWh	0.02 kWh / kWp	74 W	0.55%

The Offline status is correct here; please note that the inverter in the example transfers the measured data to the Portal every 10 min.

## 2.6 Your start page

When you log in to the SOLAR Portal, your start page will open automatically. This page gives you an overview of all your locations.

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Logged in as Max Mustermann



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user navigation

[your personal homepage](#)  
[Logout](#)

at Home

Benning Werk 2

[site overview](#)

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[PVINV101](#)  
[PVINV102](#)  
[PVINV103](#)  
[PVINV104](#)  
[PVINV105](#)  
[PVINV106](#)  
[PVINV107](#)  
[PVINV108](#)  
[PVINV109](#)  
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overview

profile

gallery

users

reporting

troubleshooting

logbook


export


Benning Werk 2 (Id: 2799)

Site statistics

Last protocol received	Jul 8, 2014 8:22:16 AM
Total energy produced	196,817.40 kWh
Total performance fee	42,019.87 EUR
Today energy produced	2.96 kWh
Energy today (specific)	0.02 kWh / kWp
Today performance fee	0.62 EUR
Active Power AC	2,129 W
Today rating	0.59%
Next report	Jul 9, 2014 3:00:00 AM
Last report	Jul 8, 2014 3:00:15 AM

Site production  
Jul 8, 2014



[detail view](#)


Name	Serial-No.	Status	Today energy produced	Energy today (specific)	Active Power AC	Today rating
<a href="#">PVINV101</a>	7034073	Online	0.29 kWh	0.02 kWh / kWp	174 W	0.58%
<a href="#">PVINV102</a>	7016463	Online	0.09 kWh	0.02 kWh / kWp	74 W	0.55%
<a href="#">PVINV103</a>	7016464	Online	0.09 kWh	0.02 kWh / kWp	74 W	0.55%

At the bottom of the screen under “My locations” you can see the locations for which you are the “Location owner” or the “Location Admin.” Under “Other locations” you can see the locations for which you have been registered as a “User”. These locations need not necessarily be public. Your neighbour, for example, can give you authorisation to use his location, so that you can compare your PV system with his more easily.

15.01.2014

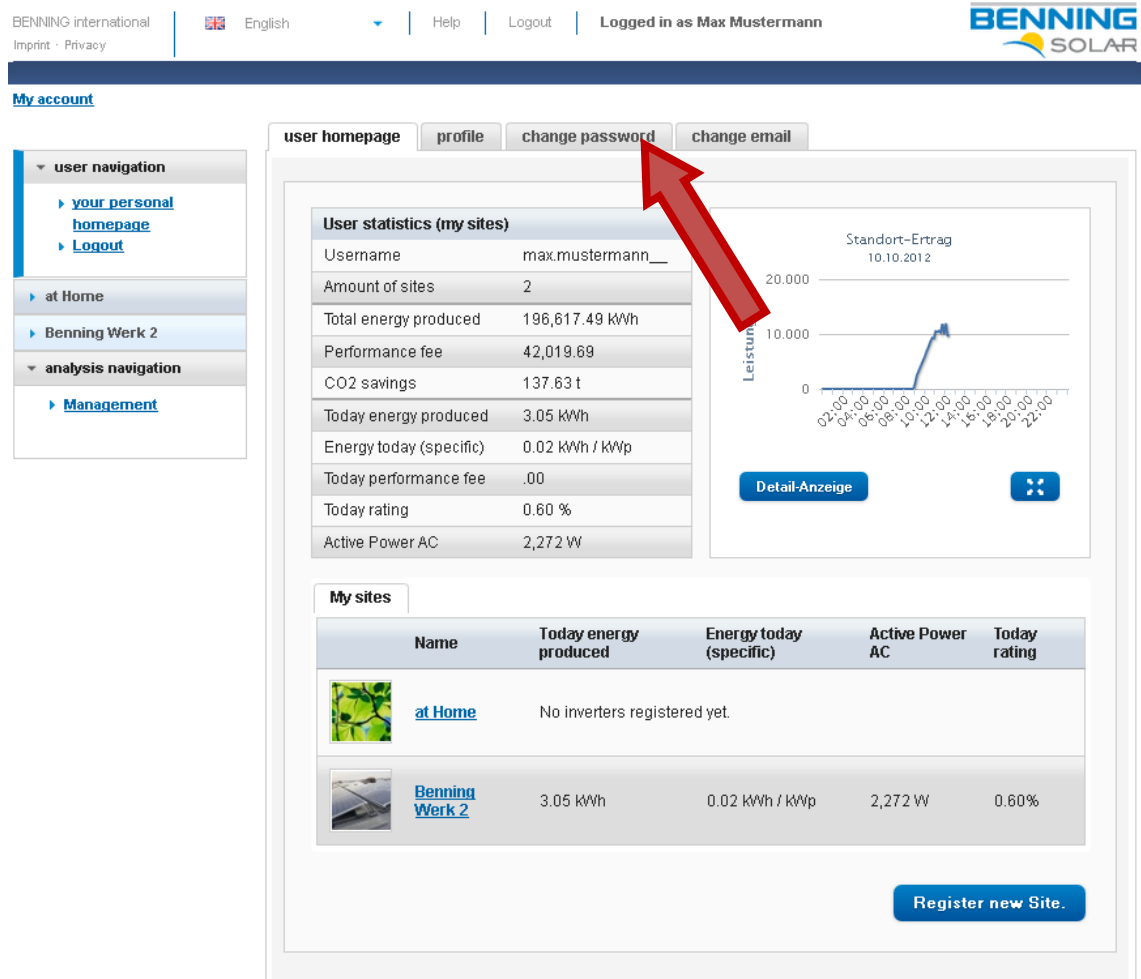
10/35

4875 en

## 3 Extended Functions

### 3.1 Changing your password

Select the button "Change password" on your start screen.

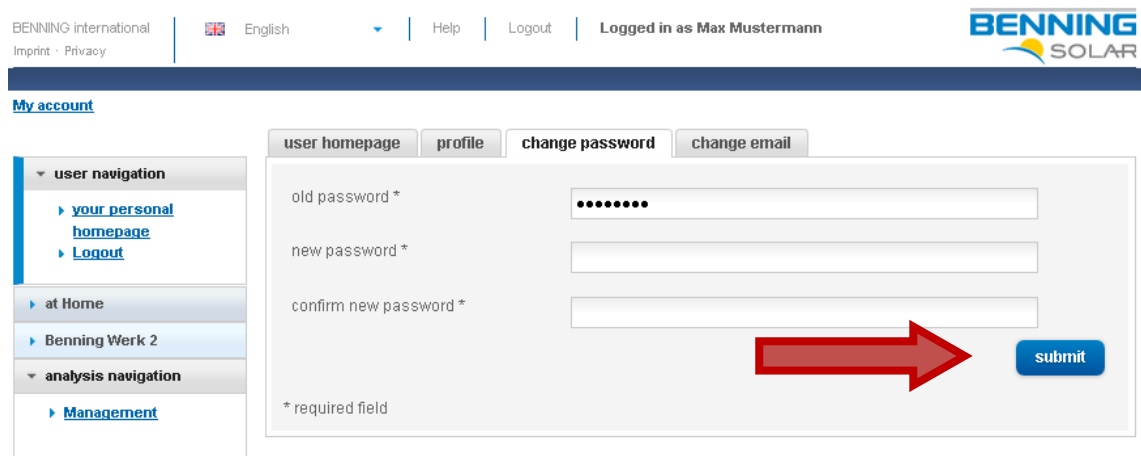


The screenshot shows the user interface of the Benning Solar Portal. At the top, there is a navigation bar with links for 'BENNING international', 'English', 'Help', 'Logout', and 'Logged in as Max Mustermann'. Below this is a 'My account' section with tabs for 'user homepage', 'profile', 'change password', and 'change email'. The 'change password' tab is selected and highlighted with a red arrow. The main content area displays 'User statistics (my sites)' with a table of user data and a line graph showing 'Standort-Ertrag' (Location Yield) for 10.10.2012. Below the statistics is a table titled 'My sites' showing details for 'at Home' and 'Benning Werk 2'. A 'Register new Site.' button is located at the bottom right of the main content area.

Parameter	Value
Username	max.mustermann__
Amount of sites	2
Total energy produced	196,617.49 kWh
Performance fee	42,019.69
CO2 savings	137.63 t
Today energy produced	3.05 kWh
Energy today (specific)	0.02 kWh / kWp
Today performance fee	.00
Today rating	0.60 %
Active Power AC	2,272 W

Name	Today energy produced	Energy today (specific)	Active Power AC	Today rating
at Home	No inverters registered yet.			
Benning Werk 2	3.05 kWh	0.02 kWh / kWp	2,272 W	0.60 %

On the following web page you will be requested to enter your current password and your new password (twice). To adopt your new password click on "send".

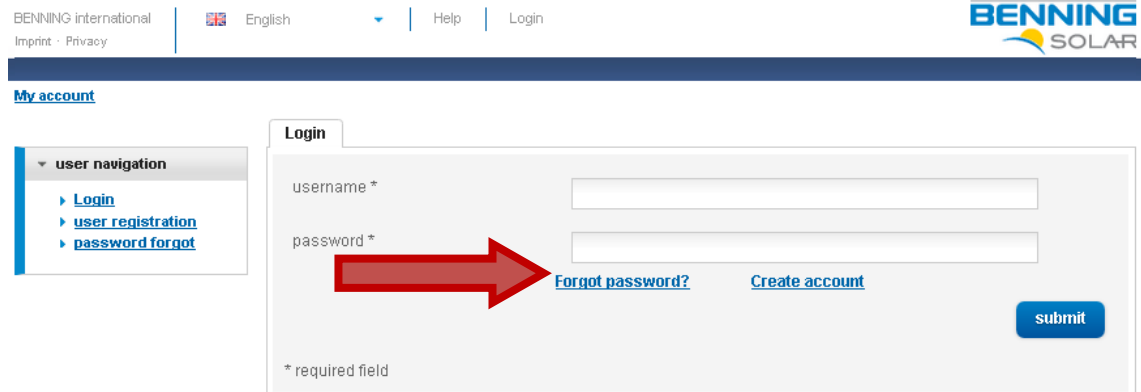


The screenshot shows the password change form in the Benning Solar Portal. The form has three input fields: 'old password \*', 'new password \*', and 'confirm new password \*'. A red arrow points to the 'submit' button. Below the form, there is a note: '\* required field'.

Your personal password must have at least 5 characters. If your password does not fulfil the requirements, you will receive an error message and will be requested to adapt your password to the criteria.

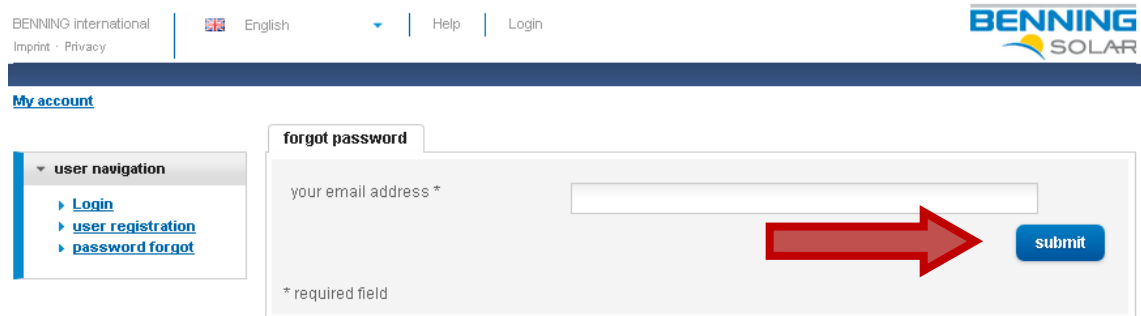
## 3.2 Password forgotten

To reset your password click on the button “Forgotten your password?”.

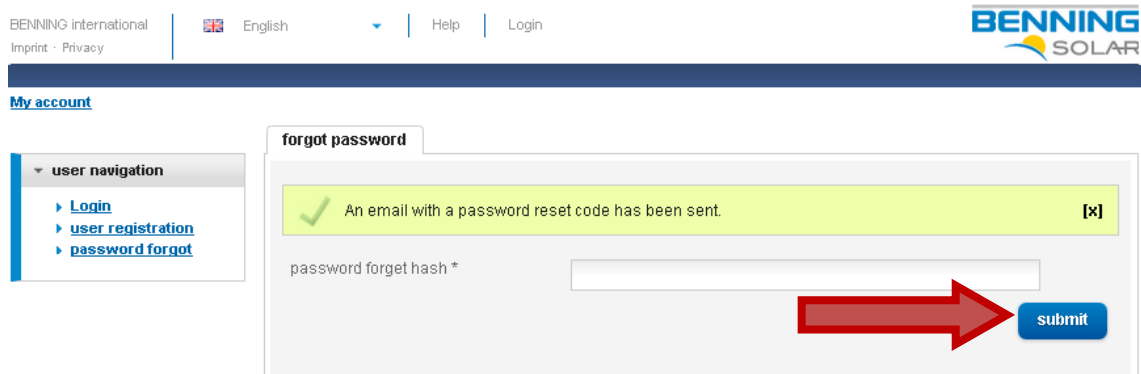


The following web page will open up in which you must enter the email address you used to register with BENNING SOLAR Portal.

You will receive an email with a confirmation link.



Click on this link to open the following web page.



Enter a new password twice and confirm the double entry by clicking on “send”. You have now successfully reset your password.

### 3.3 Location functions

Select your location and click on "Location overview".

**User statistics (my sites)**

Username	max.mustermann__
Amount of sites	2
Total energy produced	196,617.49 kWh
Performance fee	42,019.69
CO <sub>2</sub> savings	137.63 t
Today energy produced	3.05 kWh
Energy today (specific)	0.02 kWh / kWp
Today performance fee	.00
Today rating	0.60 %
Active Power AC	2,272 W

**My sites**

Name	Today energy produced	Energy today (specific)	Active Power AC	Today rating
<a href="#">at Home</a>	No inverters registered yet.			

The following web page will open up:

**Benning Werk 2 (Id: 2799)**

**Site statistics**

Last protocol received	Jul 8, 2014 8:40:28 AM
Total energy produced	196,617.91 kWh
Total performance fee	42,019.79 EUR
Today energy produced	3.48 kWh
Energy today (specific)	0.02 kWh / kWp
Today performance fee	0.73 EUR
Active Power AC	2,348 W
Today rating	0.69%
Next report	Jul 9, 2014 3:00:00 AM
Last report	Jul 8, 2014 3:00:15 AM

**Site production Jul 8, 2014**

Name	Serial-No.	Status	Today energy produced	Energy today (specific)	Active Power AC	Today rating
<a href="#">PVINV101</a>	7034073	Online	0.39 kWh	0.03 kWh / kWp	279 W	0.78%
<a href="#">PVINV102</a>	7016463	Online	0.11 kWh	0.02 kWh / kWp	85 W	0.62%
<a href="#">PVINV103</a>	7016464	Online	0.10 kWh	0.02 kWh / kWp	91 W	0.59%
<a href="#">PVINV104</a>	7019752	Online	0.41 kWh	0.03 kWh / kWp	297 W	0.82%
<a href="#">PVINV105</a>	7019751	Online	0.37 kWh	0.03 kWh / kWp	311 W	0.74%
<a href="#">PVINV106</a>	7019754	Online	0.38 kWh	0.03 kWh / kWp	290 W	0.75%

You will see several menu items at the top of the screen: "Overview", "Profile", "Gallery", "Users", "Reporting", "Emergency Plan", "Log" and "Export".

### 3.3.1 Overview

The overview is also the start page of the location. You can see the status incl. the most important technical data of the location here.

At the bottom of the screen you can see a list of all the inverters connected to this location.


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Logged in as Max Mustermann



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Benning Werk 2

site overview

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[PVINV109](#)  
[PVINV110](#)  
[PVINV111](#)  
[PVINV112](#)

analysis navigation

[Management](#)

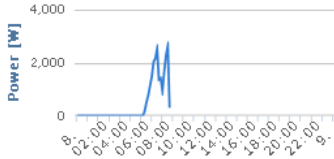
overview
profile
gallery
users
reporting
troubleshooting
logbook
export

Benning Werk 2 (Id: 2799)

Site statistics

Last protocol received	Jul 8, 2014 8:40:28 AM
Total energy produced	196,617.91 kWh
Total performance fee	42,019.79 EUR
Today energy produced	3.48 kWh
Energy today (specific)	0.02 kWh / kWp
Today performance fee	0.73 EUR
Active Power AC	2,348 W
Today rating	0.69%
Next report	Jul 9, 2014 3:00:00 AM
Last report	Jul 8, 2014 3:00:15 AM

Site production  
 Jul 8, 2014

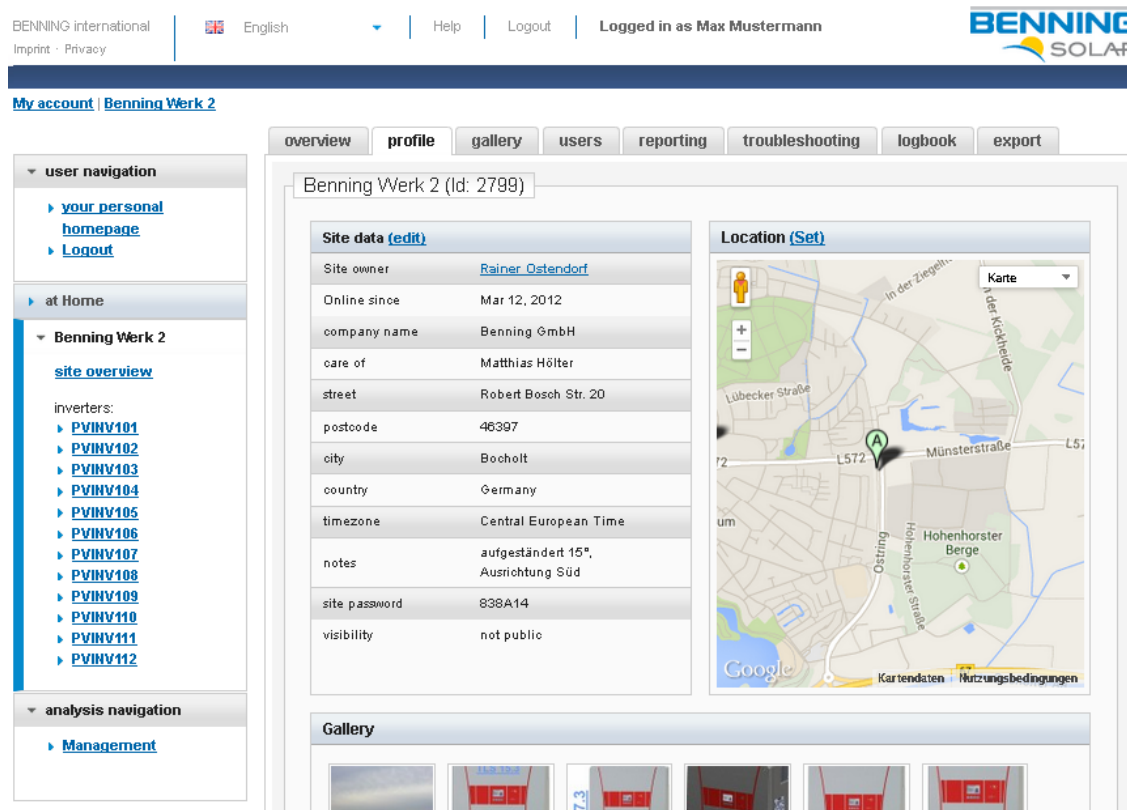


[detail view](#)

Name	Serial-No.	Status	Today energy produced	Energy today (specific)	Active Power AC	Today rating
<a href="#">PVINV101</a>	7034073	Online	0.39 kWh	0.03 kWh / kWp	279 W	0.78%
<a href="#">PVINV102</a>	7016463	Online	0.11 kWh	0.02 kWh / kWp	85 W	0.62%
<a href="#">PVINV103</a>	7016464	Online	0.10 kWh	0.02 kWh / kWp	91 W	0.59%
<a href="#">PVINV104</a>	7019752	Online	0.41 kWh	0.03 kWh / kWp	297 W	0.82%
<a href="#">PVINV105</a>	7019751	Online	0.37 kWh	0.03 kWh / kWp	311 W	0.74%
<a href="#">PVINV106</a>	7019754	Online	0.38 kWh	0.03 kWh / kWp	290 W	0.75%

### 3.3.2 Profile

This page shows you the most important data that you have entered, such as the contact person, the address and the password of the location etc.



The screenshot shows the 'Profile' page for 'Benning Werk 2 (Id: 2799)'. The page is divided into several sections:

- Navigation Bar:** Includes links for 'My account', 'Benning Werk 2', and tabs for 'overview', 'profile', 'gallery', 'users', 'reporting', 'troubleshooting', 'logbook', and 'export'.
- Left Sidebar:** Contains 'user navigation' with links to 'your personal homepage' and 'Logout', and 'at Home' with a link to 'Benning Werk 2' and a list of inverters (PVINV101 to PVINV112).
- Main Content Area:**
  - Site data (edit):** A table with the following information:
 

Site owner	Rainer Ostendorf
Online since	Mar 12, 2012
company name	Benning GmbH
care of	Matthias Hölter
street	Robert Bosch Str. 20
postcode	46397
city	Bocholt
country	Germany
timezone	Central European Time
notes	aufgeständert 15°, Ausrichtung Süd
site password	838A14
visibility	not public
  - Location (Set):** A map showing the location of the site in Bocholt, Germany, with a green pin and a 'Karte' dropdown menu.
  - Gallery:** A section showing a grid of images related to the site.

Visibility of the location, "not public" in this case, indicates whether the location is displayed in the overview of the BENNING SOLAR Portal or, as in this example, not displayed.

The location password is only visible for you or for users you have entered as an "Installer" or as "Location admin.". Users that you have entered as a "User", e.g. your neighbour, can not see the location password.

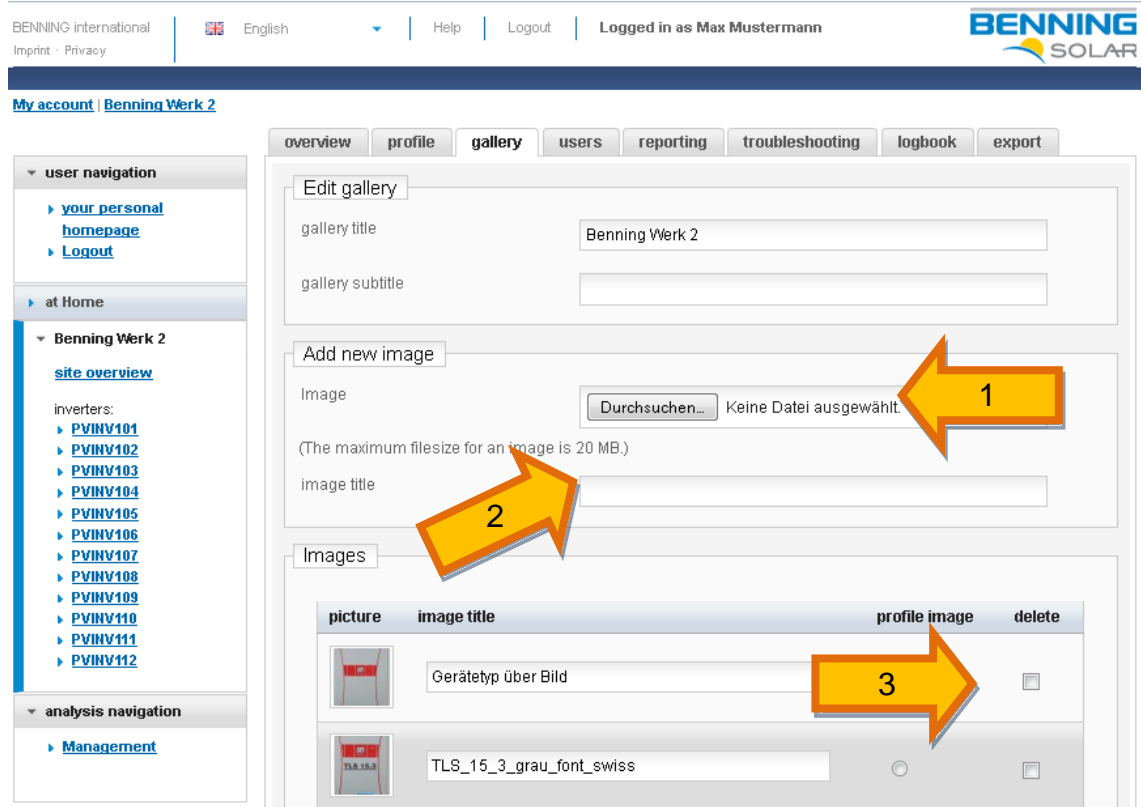
You can edit your location data at any time by clicking on the "Edit" button and entering your changes in the window that then opens.

To set the location click on "Set" above the map section. The new location can now be set by clicking in the map."

### 3.3.3 Gallery

You have the possibility of having photos of your photovoltaic system displayed in your location profile.

You can configure the desired photos via the “Gallery” page.



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Logged in as Max Mustermann

**BENNING SOLAR**

[My account](#) | [Benning Werk 2](#)

overview profile **gallery** users reporting troubleshooting logbook export

**Edit gallery**

gallery title Benning Werk 2

gallery subtitle



**Add new image**

Image  Keine Datei ausgewählt.

(The maximum filesize for an image is 20 MB.)

image title

**Images**

picture	image title	profile image	delete
	Gerätetyp über Bild	<input type="radio"/>	<input type="checkbox"/>
	TLS_15_3_grau_font_swiss	<input type="radio"/>	<input type="checkbox"/>

To upload photos to the Portal, first click on the “Search” button and then select the picture on your computer.

You can give your picture a name, to do this enter the desired title in the box. “Picture Title”.

To complete the procedure, click on “send”.



### 3.3.4 User

You can create other users for the purpose of informing other persons in the event of a fault, for example.

To do this, enter the email address of the user in the appropriate box and select the role of the location user.

The authorisations of the individual user roles are as follows:

Authorisations:			
Right	User	Installer	Location Admin Location Owner
Viewing of system properties (Profile)	yes	yes	yes
Viewing of device properties (inverters)	yes	yes	yes
Viewing of report configuration	no	yes	yes
Changing and deleting page contents	no	yes	yes
Changing system properties (Profile)	no	yes	yes
Editing calculated channels	no	yes	yes
Viewing and acknowledging system log	no	yes	yes
Importing data	no	yes	yes
Viewing of user administration	no	no	yes
Adding, deleting users, assigning roles	no	no	yes

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no inverters yet

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Add user by email address

email address

site user role

authorizeduser

submit

Users

name	email	role	remove
Mustermann, Max		site owner	<a href="#">change</a>

submit

### 3.3.5 Reporting

In order to receive information about your photovoltaic system you can have a report sent to you at regular time-based intervals.

Select the interval: monthly, weekly, daily, never.

Select whether you wish to add your log to the time period or not.

Select the analyses<sup>1</sup> that should be added to the report.

Select the mailing list to which the report should be sent. The recipients need not be registered with the SOLAR Portal.

---

<sup>1</sup> Explained in Chapter 3.5  
Analysis and Comparison functions

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time

interval \*
never

Add logbook entries

add logbook entries
☐

minimum loglevel \*
error

Add analyses

0 item selected
[Remove all](#)

[Add all](#)

submit

Site users activation

name	email	activate
<a href="#">Mustermann, Max</a>	dan8918+fkf0to@sharklasers.com	<input type="checkbox"/>

Add email address

email address

Active manual email addresses

name	email
------	-------

send testmail

submit

\* required field

### 3.3.6 Emergency Plan

In order to receive information about any important incidents, you have the possibility of creating an emergency plan.

You can for example, have a message from the BENNING SOLAR Portal sent to you in the event of a breakdown in communication lasting longer than 30 minutes.

You can also have information sent to you if one of your inverters signals a FAULT or its specific output deviates from a set tolerance range compared to your other inverters. A "standard" output is used as the basis of the calculation in this comparison.


To activate this function select the desired settings and the email mailing list.

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Communication failure notifications

timeout interval \* off

New logbook entry notifications

minimum loglevel \* off

Inverter variance notifications

tolerance off

Site users activation

name	email	activate
<a href="#">Mustermann, Max</a>	dan8918+fkf0tc@sharklasers.com	<input type="checkbox"/>

Add email address

email address

Active manual email addresses

name	email	remove

\* required field

### 3.3.7 Log

You can view the information, warnings and fault messages of your location on this page. The filter at the top of the screen can be used to select the fault class (minimum log level), the message status (read / unread) and a specific inverter.

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Filters

minimum loglevel \*

info

message status

all

inverter

all

mark all event messages as read

apply filter

Log events

Show entries

10

logtime	inverter	loglevel	state	logmessage	id	read
No matching records found						

<<

<

>

>>

0 entries found

mark all event messages as read

submit

\* required field

You have the possibility of marking all entries as read, to save you the trouble of having to mark all entries as read manually. To do this click on the button "Mark all incidents as read".

15.01.2014

21/35

4875 en

### 3.3.8 Export

To download your measured data to your computer locally, select the year and acknowledge your selection by clicking on “Download”.

You will receive a \*.csv file that you can, for example, edit further in Excel.


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export

Choose export period

year \*

2014

▼



Download

\* required field

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[site overview](#)

inverters:
 

[▶ PVINV101](#)  
[▶ PVINV102](#)  
[▶ PVINV103](#)  
[▶ PVINV104](#)  
[▶ PVINV105](#)  
[▶ PVINV106](#)  
[▶ PVINV107](#)  
[▶ PVINV108](#)  
[▶ PVINV109](#)  
[▶ PVINV110](#)  
[▶ PVINV111](#)  
[▶ PVINV112](#)

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### 3.4 Sidebar

In addition to faster access to various functions, the sidebar also provides you with an overview of your locations. The locations are sorted and coloured according to their roles in the individual locations.

In this example the user “Max Mustermann” is the owner / admin of the locations “at home” and “Benning plant 2”.


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---

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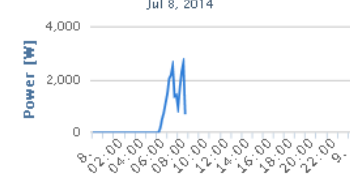
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user homepage
profile
change password
change email

**User statistics (my sites)**



Username	max.mustermann__
Amount of sites	2
Total energy produced	196,618.00 kWh
Performance fee	42,019.80
CO2 savings	137.63 t
Energy produced	3.56 kWh
Energy today (specific)	0.03 kWh / kWp
Today performance fee	.00
Today rating	0.70 %
Active Power AC	1,973 W

Overall performance (my sites)  
Jul 8, 2014



[detail view](#)

**My sites**

Name	Today energy produced	Energy today (specific)	Active Power AC	Today rating
 <a href="#">at Home</a>	No inverters registered yet.			
 <a href="#">Benning Werk 2</a>	3.56 kWh	0.03 kWh / kWp	1,973 W	0.70 %

[Register new Site.](#)


### 3.5 Analysis and Comparison functions

In order to use the Analysis and Comparison functions select the menu item “Analysis navigation” on your start page and then the submenu “Administration”.

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---

[Mein Konto](#)

Benutzer-Statistik (Meine Standorte)

Benutzername	max.mustermann
Anzahl der Standorte	1
Energie gesamt	,00 kWh
CO2 Einsparung	0,00 t
Energie heute	,00 kWh
Energie heute (spezifisch)	,00 kWh / kWp
Einnahmen heute	,00 EUR
Quote heute	,00 %
Leistung AC aktuell	0 W

Meine Standorte

Name	Energie heute	Energie heute (spezifisch)	Leistung AC aktuell	Quote heute
 <a href="#">zu Hause</a>	,00 kWh	,00 kWh / kWp	0 W	,00%

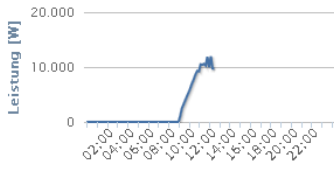
[Neuen Standort registrieren.](#)

Benutzer-Startseite
Benutzerdaten
Passwort ändern
E-Mail-Adresse ändern

Benutzer-Navigation

- [Ihre Startseite](#)
- [Ausloggen](#)
- zu Hause
- ▾ Analyse Navigation
  - [Verwaltung](#)

Standort-Ertrag  
10.10.2012



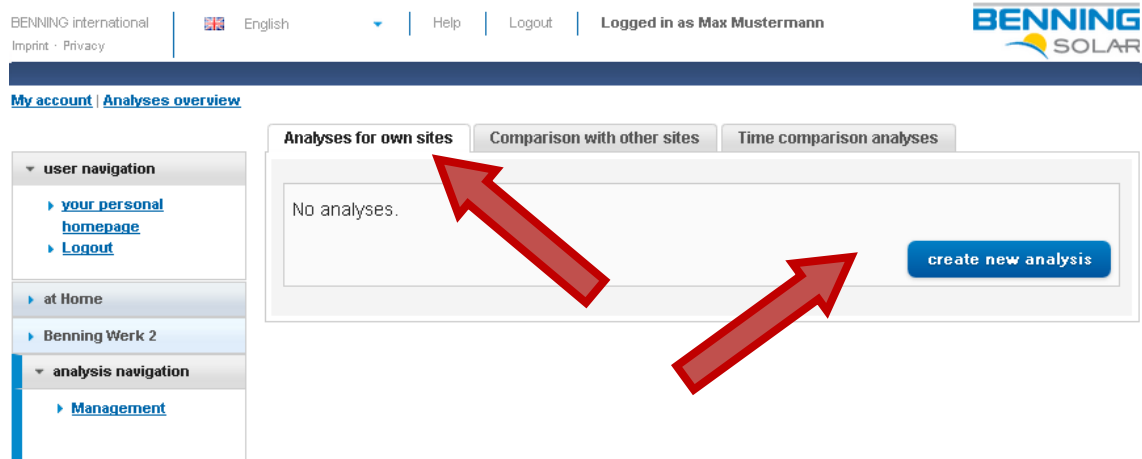
Detail-Anzeige



### 3.5.1 Analysis for your own locations

If the standard diagrams are not sufficient for you or if you wish to monitor very specific technical channels, you have the possibility of creating different analysis reports.

First select the “Analysis of my own locations” button and then click on “Create new analysis”.



This will bring to the following page on which you can select the desired parameters. Select the desired type of diagram, the scaling of the time axis and the mode. Selection of the modes: Expert or Advanced provides you with a larger choice of measuring channels.

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analysis navigation

[Management](#)

Analyses for own sites

Comparison with other sites

Time comparison analyses

Update was successful. [x]

Cancel save

General parameters

analysis name \*  
AC & DC complete

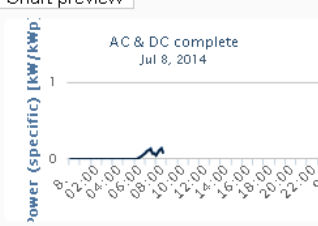
charttype \*  
line chart

intervalltype \*  
day

mode \*  
standard

Chart preview

AC & DC complete  
Jul 8, 2014



view chart

Selected channels

site	inverter	channel	remove
Benning Werk 2	PVINV101 (7034073)	AC Power Site (specific)	<input type="checkbox"/>
Benning Werk 2	PVINV101 (7034073)	DC Power Site (specific)	<input type="checkbox"/>

Channel selection

Benning Werk 2
PVINV101 - 703407
DC Power Site (spe

Cancel save

In the example shown here the specific AC and the specific DC output over time is depicted in a diagram.

Please note that you must always select an inverter in order to get the menu for the full display.

You can also have the analyses for each inverter displayed specifically. The only way your wishes are limited is by the number of available measured values.

Please click on the "Save" button to display the preview.

You can add your location report to your analysis report from this point onwards. Please refer here to Chapter 3.3.5 "Reporting".

Edit: you can edit your report.

Copy: you can copy your report in order to edit the copy

Delete: you can delete your report

Export: you can save your report locally

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User analyses					Sid
<a href="#">AC &amp; DC complete</a>	<a href="#">(edit)</a>	<a href="#">(copy)</a>	<a href="#">(delete)</a>	<a href="#">(export)</a>	<input type="checkbox"/>

[create new analysis](#)



You can also have your configured report displayed in the sidebar, to do this tick “Sidebar” and wait a minute.

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Analyses for own sites | Comparison with other sites | Time comparison analyses

User analyses					Sidebar
<a href="#">AC &amp; DC complete</a>	<a href="#">(edit)</a>	<a href="#">(copy)</a>	<a href="#">(delete)</a>	<a href="#">(export)</a>	<input checked="" type="checkbox"/>

[create new analysis](#)



Your report is now in your sidebar.

## 3.5.2 Comparison with other locations

If you operate more than one location and would like to compare your locations with each other or to display the individual inverters of both locations in a diagram, you can do so on this page. You can also compare your locations with other locations, e.g. public locations or locations released for you such as those of your neighbour.


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  - ▶ [AC & DC complete](#)

Cancel
save

**General parameters**

analysis name \*

charttype \* line chart

intervaltype \* day

mode \* standard

**Chart preview**

Please save to enable chart preview.

**Add site by id**

site id

**Selected channels**

site	inverter	channel	remove
Please select a channel and save.			

**Channel selection**

(select site) ▼
(select inverter) ▼
(select channel) ▼

Cancel
save

Select the individual measuring channels as already explained in Chapter 3.5.1 “Analysis for your own locations”. In addition to your own locations you can also add public locations, e.g. those of your neighbour.

### 3.5.3 Time period comparison analyses

You can use this function to compare the measured values of your PV system for different days, months or years, e.g. you can compare 01.08.2011 with 01.08.2012 or August 2011 with August 2012 or 2011 with 2012.

A calendar view enables simple selection of the two days, months or years to be used for the comparison, which you must then expand with the desired measuring channels as already explained in the previous chapter.


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Cancel
save

**General parameters**

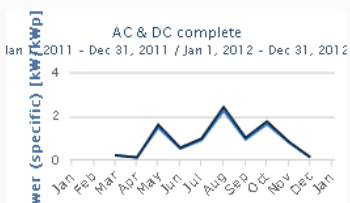
analysis name \* AC & DC complete

charttype \* line chart

intervaltype \* year

mode \* standard

**Chart preview**



AC & DC complete  
Jan 2011 - Dec 31, 2011 / Jan 1, 2012 - Dec 31, 2012

view chart

**first date for time comparison**

year 2011

**second date for time comparison**

year 2012

**Selected channels**

site	inverter	channel	remove
Benning Werk 2	PVINV101 (7034073)	DC Power Site (specific)	<input type="checkbox"/>
Benning Werk 2	PVINV101 (7034073)	AC Power Site (specific)	<input type="checkbox"/>

**Channel selection**

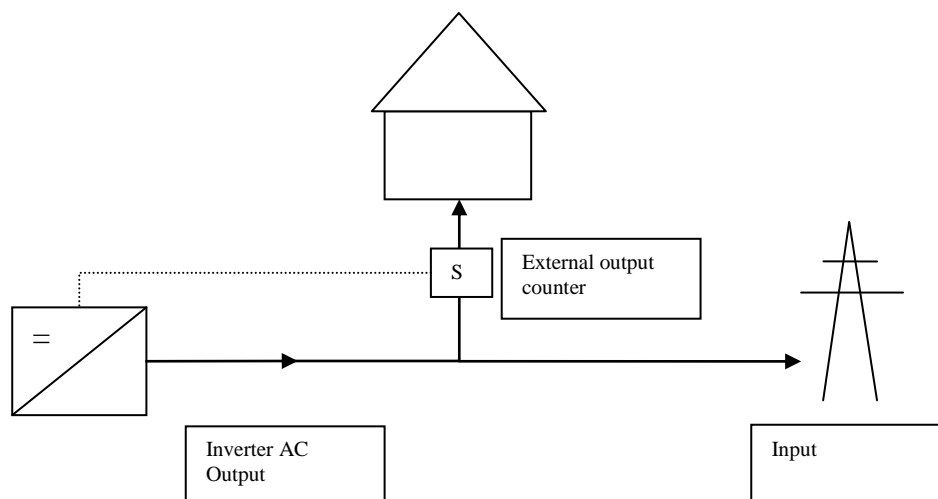
(select site)
(select inverter)
(select channel)

Cancel
save

### 3.5.4 Self-consumption

The analysis functions of the BENNING Solar Portal can be used to carry out a detailed evaluation of the solar power consumed on the spot (Self-consumption).

To do this it is necessary to capture the output of the connected household/business enterprise using an external S0 counter. This allows the calculation of the proportion of your self-consumption compared to the total power output:



The Solar Portal provides three channels for this evaluation:

**Energy/ Output:** This channel displays the AC power output of the inverter (in W) in the day view. The energy generated by the inverter is displayed (in kWh) in the month and year view.

**External output counter:** This channel displays the power consumption (in W) determined by the external S0 counter. This is typically the power consumption of the connected household or business enterprise. This value can be higher than the power output of the inverter. If this is the case, electricity is being drawn from the grid.

**Self-consumption:** In the day view this channel displays the proportion of one's own power consumption compared to the power output of the inverter. This value can never be higher than the power output of the inverter. In the month and year view this channel depicts the amount of energy (in kWh) consumed by oneself.

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Management

AC & DC complete

General parameters

analysis name \*

charttype \*

intervaltype \*

mode \*

Chart preview

Please save to enable chart preview.

Selected channels

site	inverter	channel	remove
Please select a channel and save.			

Channel selection

(select site)

(select inverter)

(select channel)

Cancel

save

appropriate analysis can be created in the BENNING Solar Portal for evaluating one's self-consumption rate. To do this, proceed as follows:

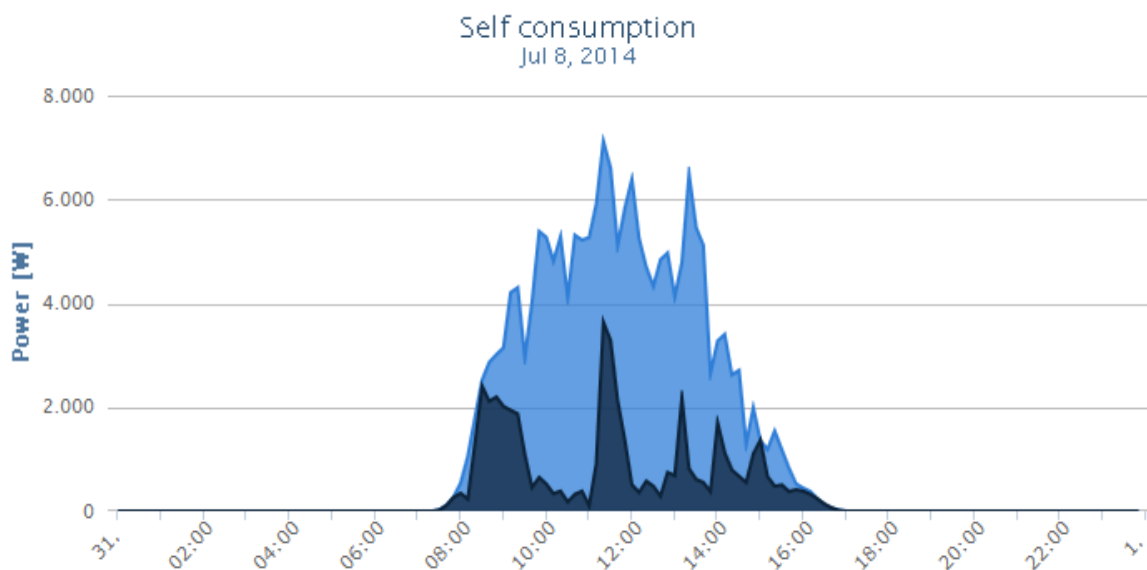
Create a new analysis under "Analysis navigation" -> "Management".

Add the channel "Self-consumption" to the new analysis. Then complete the channel "Energy/Output".

site	inverter	channel	remove
Benning Werk 2	PVINV101 (7034073)	Total Energy	<input type="checkbox"/>
Benning Werk 2	PVINV101 (7034073)	Self consumption	<input type="checkbox"/>

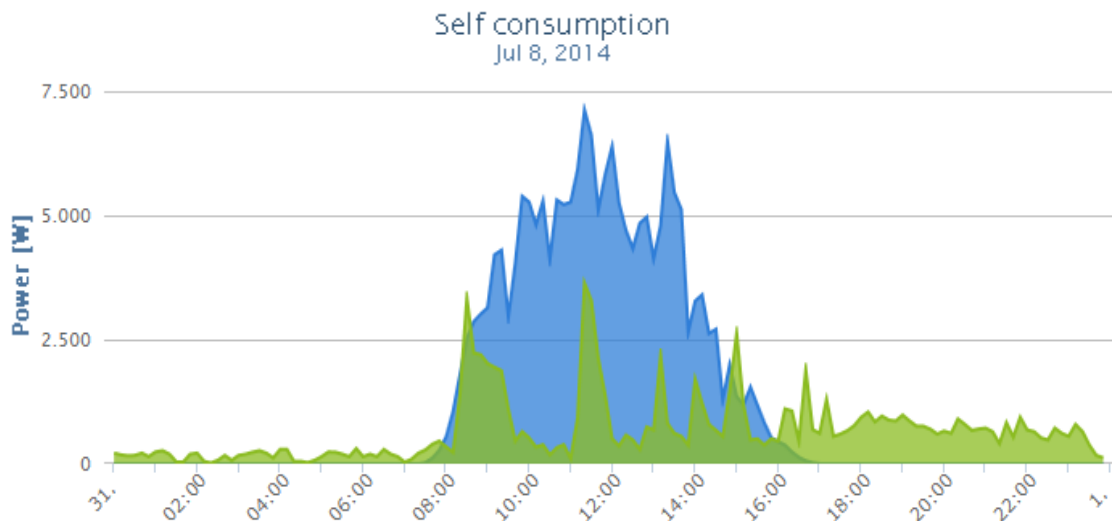
Finally save the analysis by clicking on "Save". A preview will appear based on the real measured data.

You can enlarge the preview by clicking on “Display diagram”.



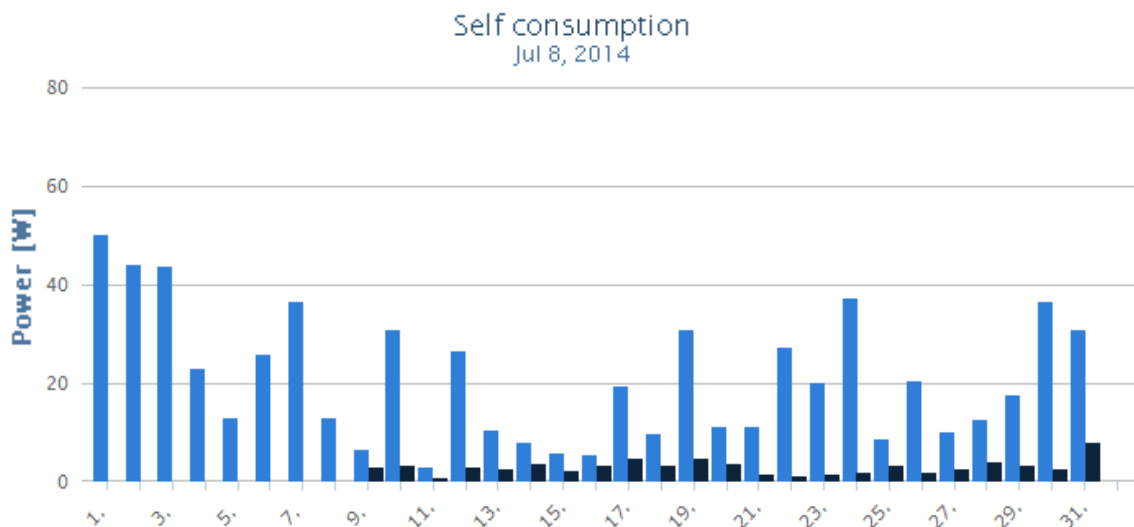
Two curves are displayed in the day view: AC output [W] and Self-consumption [W]. The channel AC output indicates the total power generated by the inverter, the channel “Self-consumption” the power consumed on the spot.

It could be interesting for further analysis purposes to view the total output of the connected household. To do this the channel “External output counter” can be added:





In order to evaluate one's self-consumption on a daily basis the type of diagram can be changed to a "bar chart". If day view is selected, the energy values of the day are displayed:



This makes it simple to evaluate your own daily consumption rate.

### 3.5.5 Display of the 70% output limit

It is possible to display the 70% limits permanently in an analysis, the point as of which a reduction in output is effected in some systems. To do this add the channel "70% generator output" to your analysis as indicated below.

Channel selection

Benning Werk 2 ▼

PVINV101 - 703407 ▼

70% generator pow ▼

### 3.6 Replacing an inverter

In the event you have returned your device to BENNING for repair or replacement and have received a replacement device, it is quite simple to connect the replacement device to your location. All you have to do is enter the necessary data into your device as explained in Chapter 2.5 "Assigning a location to devices".

Next login to the BENNING SOLAR Portal as usual and navigate to your location.

You will now be requested in the location overview to approve the replacement of your device.

**Replace this broken inverter with exchange inverter andre-storage (123456789)**

Please note that the following conditions are mandatory:

1. The new device is assigned to the same location as the old one
2. The new device has the same field bus ID as the old one

If these conditions are not met, you will not be asked about a replacement.

In order to connect the replacement device with your location click on the button "Replace this inverter with ...".

## **BENNING Solar**

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