

## WEBfactory® Success Story

## Stadtwerke Buchen

The screenshot shows a web browser window displaying the 'Energie-Fernwartung' portal. The browser address bar shows 'http://www.energie-fernwartung.de'. The page header includes the 'STADTWERKE BUCHEN' logo and the title 'Energie-Fernwartung'. The main content area is a grid of eight tiles, each with an icon and a title: 'Mein Profil' (person icon), 'Installationen' (house with solar panels), 'Berichte' (report icon), 'CO2 Einsparung' (leaf with CO2), 'Einspeisevergütung' (coins), 'Energiepark Neussass' (solar field), 'Ertragsdaten' (digital display showing 736290), and 'Ertragsdaten im Vergleich' (digital display showing 736290). A sidebar on the right contains 'WEBfactory GmbH' contact information and a promotional graphic for 'WEBfactory Ihre Nr. 1 für webbasierte Prozessautomatisierung'. The footer includes the company name 'Stadtwerke Buchen GmbH & Co KG' and contact details.

## Better use of solar energy with the help of WEBfactory EMS

**Stadtwerke Buchen** (SWB), a service provider with approximately 40 employees and a turnover of EUR 24.3 million (2009), supplies the 18,500 inhabitants of the city of Buchen in Baden-Württemberg, and some other parts of the region, with electricity, natural gas and water, while also providing various services. In addition, the company is a full-service provider for photovoltaic facilities in the Neckar-Odenwald District, with competences in planning, marketing and construction of solar power plants.

Until now, owners of photovoltaic facilities had no access to the current supply line data and the measured data of their facilities. Therefore, failures were often not detected in due time, and consequently the break-even point was achieved later than planned. Many monitoring solutions available on the market are proprietary or local applications, requiring high subsequent costs for installation and maintenance.

With the help of the **SWB-Portal for remote power maintenance**, a manufacturer-independent portal for photovoltaic facility monitoring based on the **WEBfactory EMS**, all significant measured data are collected and assessed almost in real time. In the event of a fault, the facility owner and the maintenance company are immediately notified via SMS or E-mail, in order to minimize downtimes and to avoid greater losses of revenues.

Via an adequately designed user interface, all collected measured data and faults can be easily displayed in an Internet browser. Due to the integration of the latest Internet presentation technology, the application is fully vector-based and easily adapts to any relevant screen resolution, without any loss of quality. The portal can be easily integrated via standard interfaces in any existing IT environment and provides an interface to the most popular data logger. Extensive statistics, from input price, failure frequency to failure duration and benchmark with other facilities, are delivered via E-mail, on customizable time intervals, and are available online at any time.

The SWB-Portal for remote power maintenance offers SWB's end clients multiple advantages:

- A manufacturer-independent portal with free online access for the retrieval of current and historical input and capitalized values
- Easy to use web interface for the administration of profile data, including address, phone number, E-mail, password and subscription to reports
- Extensive statistics and assessments based on daily, weekly, monthly, annual and perennial comparative values
- Minimization of downtime, respectively of efficiency losses in the event of a fault, using active notification via SMS, E-mail, voice message or facsimile
- Failure statistics on customizable time intervals
- Possibility to subscribe to reports via E-mail and SMS
- Anonymous statistics and comparisons in relation to all facilities connected to the SWB Portal on customizable time intervals
- Benchmark with other photovoltaic facilities, independent from the manufacturer
- Ranking of the best components, such as modules, inverted rectifiers etc., also independent from the manufacturer
- "Best of" analyses of facilities and facility components

For the monitoring of their photovoltaic facilities, SWB's clients can use the devices from the series „SolarLog“.

Device versions:

- SolarLog500: supports up to 10 inverted rectifiers (max. 50 kWp peak power recommended), 1x RS485/422 interface combined
- SolarLog1000: supports up to 100 inverted rectifiers, 1 x RS485/RS422 and 1 x RS485 interfaces

Extensive facility monitoring:

- Downtime monitoring
- Power adjustment
- Status analysis/ failure notifications
- S0 input for digital power meter connection

Graphical representation:

- Data visualization on PC, respectively on the Internet
- Daily reports summary
- Daily, monthly, annual and overall view since the commissioning date
- Special view for mobile PDA computer

Data security:

- Data can be secured on hard-disks
- Unlimited data recording

Distinctive features:

- Optional Bluetooth Module
- Multiple alarm possibilities