# BRAUEREI RAPP Kutzenhausen, Germany





### Project data

| System name:     | Brauerei Rapp Kutzenhausen |  |  |
|------------------|----------------------------|--|--|
| Operator:        | Rapp brewery               |  |  |
| Energy company:  | Lechwerke Augsburg         |  |  |
| Location:        | Kutzenhausen, Germany      |  |  |
| Commissioned:    | December 2010              |  |  |
| Completion time: | 6 weeks                    |  |  |
|                  |                            |  |  |

### **Technical data**

| Rated system power                     | 1 MWp                  | No./type of modules | 4,956 units Suntech STP200-18/Ud  |
|--|------------------------|---------------------|---|
| Annual energy yield                    | approx. 1,014,000 kWh  | Inverter            | 2 units Power One PVI-CENTRAL-110<br>2 units Power One PVI-CENTRAL-165<br>2 units Power One PVI-CENTRAL-220 |
| Equivalent to the power consumption of | approx. 254 families** | Construction type   | roof mounted system   |
| Feed-in tariff/kWh                     | EUR 0.30               | Tilt angle          | 20°   |
| Feed-in tariff p.a                     | approx. EUR 304,200    | Frame technology    | HB-Solar aerodynamic system   |
| CO <sub>2</sub> -savings p.a.          | approx. 583 tons*      | Orientation         | South   |

\* Source: The evolution of carbon dioxide emissions within the German power mixture 1990-2008: 0.575 tons CO, saved per MWh (Umweltbundesamt FG I 2.5., Status March 2010)

\*\* Source: Average power consumption of a family: 4,000 kWh (Verivox, Status 2010)

## BRAUEREI RAPP Kutzenhausen, Germany



"I am delighted to have had the support of CIC ENERGY in realising our investment. We were above all impressed by the open collaboration with mandated Phoenix Solar and the swift and professional execution."

Rupert Rapp, Managing Director Brauerei Rapp KG

#### Brewery is now quenching the thirst for energy

As a family-owned business with a tradition of more than 100 years, Brauerei Rapp KG, a brewery, thinks and acts with the future in mind, also as regards climate protection. Along with "green logistics", the company has opted for a photovoltaic plant to reduce its carbon emissions even further.

CIC ENERGY commissioned Phoenix Solar as the EPC contractor and after a construction phase of only six weeks the 1 MWp large-scale rooftop plant was successfully connected to the grid.

There was the occasional threat to the tight schedule from the extreme weather conditions with a great deal of snow and ice. Thanks to the closely coordinated cooperation between Phoenix Solar and Brauerei Rapp, however, which involved clearing snow, authorising deliveries at night and weekend shifts for instance, construction work was completed on time. Challenges in construction were also mastered: As there was to be no penetration to the roof cladding, the modules were installed on an aerodynamic mounting system. In addition, this large-scale rooftop project used PowerOne central inverters for the first time. None of construction work, not even the building and connecting up of the inverter room inside the building, caused any hindrance to or interruption of the beverage production.

Since December 2010, the Rapp brewery produces and delivers not only beverages but also green electricity which covers the annual consumption of more than 250 households. The mid-sized company has therefore sent a clear signal for the expansion of renewable energies in the region of Augsburg/Germany.

