

## Complete ICE solution to improve operating efficiency Energy Plant Forsthaus, Bern, Switzerland

ABB is supplying equipment for a new energy plant currently being constructed by Energie Wasser Bern. The facility will be amongst the first of its kind in Europe, integrating a waste incineration plant, a clean biomass-fired power plant and a combined cycle power plant. The new plant will replace the existing, 58 years old, waste incineration plant, that reached the end of its life cycle.

### Background

With an annual incineration capacity of 110,000 tons of waste and 112,000 tons of wood, the facility will generate about 330,000 MWh of thermal energy and approx. 360,000 MWh of electricity per year, significantly reducing Bern's dependence on external power supplies. ABB will supply integrated electrical and process control systems for the entire plant and will also be responsible for the high-voltage power grid connection to the capital city of Bern. The new plant is scheduled for commissioning in 2012.



The new installation is an integral part of the city's long-term district heating and electricity plan, and at the same time will deploy a futuristic recycling concept to dispose of waste in an environmentally friendly and sustainable manner.

## ABB solution

- Control system 800xA
- District heating control
- Water steam cycle control
- Boiler protection (SIL) control
- Instrumentation
- MV and LV equipment
- Transformers (step-up and distribution)
- Frequency converters / motors / drives
- UPS
- Planning, erection, commissioning
- Project management, service, remote support
- Cabling
- HV 132 KV GIS
- HV-Transformers
- IEC 61850
- Substation control system
- Connection to grid
- Emergency diesel generating sets



## Benefits

- Full-scope, totally integrated solution, one single point of contact
- Standardization results in operator cost savings
- Modern, consistent control and visualization methods
- Individually tailored operating stations
- Maximum reliability and availability
- Uninterrupted operation during installation and commissioning
- Highest environmental standards and lowest emissions
- Complete portfolio of lifecycle services
- Reduced power losses with ABB transformers
- Reduced energy consumption with ABB variable speed drives

## Plant data

Operator	Energie Wasser Bern (ewb), Switzerland
Commissioning	May 2012
Incineration lines	1xWtE + 1xBiomass
WtE	110,000 t/a of waste
Biomass	112,000 t/a of wood
Electricity	360,000 MWh/a
District heating/steam	330,000 MWh/a

For more information, please contact:

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