

# POWER GENERATION

Improving efficiency.

The reliable and low-cost supply of power is one of the greatest challenges of our times. The energy needs of industries and societies are faced with dwindling natural resources. At the same time, consideration must be given to the protection of the climate. This balancing act can succeed only with innovative technologies and optimized methods that enhance the efficiency of power stations and therefore the energy yield from valuable fuels.

DOMINION under the brand BEROA contributes towards mastering these challenges.

For a great many renowned plants, we have executed individual turnkey projects, both for refractories and chimneys, that continue to operate safely and reliably with even the most difficult processes: lignite and hard coal boilers, power stations with circulating fluidized beds, hot gas generators, etc.

DOMINION's local teams are available to assure the maintenance of your boilers, cooling towers and chimneys.

Our energy efficiency team can achieve energy reduction cost savings based on:

- Pump and fan motion control.
- Global water treatment plants: pre-treatment, boiler feed water, cooling tower sidestream, cooling tower blow down, waste water treatment.

Heating in the boiler, cooling in the tower





## **SOME CUSTOMERS**

ALSTOM POWER  
AE+E  
BAYER AG  
E-ON  
EVONIK  
RWE ENERGY  
BABCOCK POWER  
HITACHI POWER  
ENEL  
GDF -SUEZ  
EDF  
ENDESA  
SNC LAVALIN  
NUON  
TECHNIMONT

## **REFERENCE**

**CUSTOMER** - ALSTOM

**LOCATION** - Belchatow, Poland

**PROJECT** - Cooling tower, stair towers and refractory lining for lignite boiler.

**INSTALLATION** - 180 m – The highest natural draught cooling tower in Eastern Europe . 145 m stair towers. Complete refractory lining for a new block with 878 MW.

25,000 m<sup>3</sup> concrete, over 4,000 t steel reinforcement for the natural draught cooling tower.

**COMPLETION** - 2011.

## **TECHNOLOGIES**

### **TURNKEY REFRACTORY PROJECTS**

Turnkey as interpreted by BEROA: We develop the whole range of refractory engineering. We provide the refractory materials and are responsible for the installation.

### **BOILER AND CHIMNEY SERVICES**

With our extensive standby pool of refractory materials, prefabricated parts, equipment and local manpower, we can also respond flexibly to your requirements in the area of maintenance, both planned shutdowns and emergency repairs. If the customer wishes, a turnkey solution can also include for example; welding work on the whole anchoring system, boiler inspections as part of the full service and drying procedures on the entire plant prior to operation.

### **CHIMNEY CONSTRUCTION**

From the design stages, DOMINION is your partner for a turnkey construction of a concrete chimney.

### **STEEL CHIMNEYS**

DOMINION can advise whether steel or concrete suits your chimney project better. In the first case STEELCON, a member of DOMINION, supplies and installs steel chimneys with an optimized design.

### **COOLING TOWERS**

Turnkey construction of cooling towers.

### **STAIRCASE TOWERS**

For a fast and high quality construction, our experts in slipforming take over the turnkey construction of such structures.

### **ENERGY EFFICIENCY**

Energy efficiency technologies including energy monitoring, electrical control, heat use optimization and waste heat recovery, furnace optimization service, steam pressure recovery project, compressed air network global optimization and retrofit, air and flue gas quality monitoring system, water treatment plant.