

### Companies connection to energy efficiency and sustainability

The company is a producer of coke, coke oven gas and other coke chemistry products. In its activities, it applies effective procedures to reduce negative environmental and human health impacts. The company strives for a safe and environmentally responsible management that will lead to long-term stability and prosperity. It is based on an analysis of current and future needs and expectations of customers.

### Steam system

The company does not produce steam from its own source, steam is purchased only from a heating plant. The steam for the technology (manufacture of coke) is purchased in the form of superheated steam at a pressure of 9 bars and a temperature of 260-280°C from the adjoining heating plant. Condensate is not return because of concerns about contamination. Rate of direct used steam is estimate 50 %. The use of steam is absolutely essential for technology.

### Steam system problems identified

- Thorough insulation of all steam piping, including valves and fittings.
- Optimal setting of condensate drain from steam distribution, including efficient maintenance program.
- Maximize heat recovery from the condensate in the technology or at least for heating and hot water preparation.

### Proposed energy saving measures, investments, and expected results

The proposed measures consist of the utilization of condensate for heating of control room for gas storage, the relocation of reduced steam pipes to autoclave, the installation of steam traps in steam pipelines and the waste heat recovery of condensate. This measures lead to calculated energy saving of 962 MWh per year.

### Implemented proposed energy saving measures, investments and results achieved

The investment costs for the energy saving measures are about 112 900 € and the payback period is less than 4 years.

### Achieved and/or expected Non Energy Benefits (NEBs) as result of implemented and/or proposed measures and investments involved

Projects increase the overall efficiency of the steam system and lead to the reduction emission of pollutants and CO<sub>2</sub> emissions at the global level, reduction water consumption for steam generation, reduction consumption of chemicals for water supply.

### Involvement of internal stakeholders

The measures are ranked according to the criteria defined with the company. The management was informed about the methodology Steam Up and they have expressed their willingness to participate. They are highly interested in implementing measures to achieve cost-effective energy savings.



Ostrava, Czech Republic

Coke production

560 employees

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**Total (estimated) Investment**  
€ 112 900

**Total (Estimated) Savings**  
962 MWh per year

### Non Energy Benefits

Reducing emission of pollutants and CO<sub>2</sub> emissions  
Reducing water consumption for steam generation  
Reducing consumption of chemicals for water supply  
Environmental protection  
Modernisation of production process