# Vattenfall AB

### **UPPSALA, SWEDEN - PANEL WALLS AND ECONOMIZER REPLACEMENT**

PROJECT CASE HISTORY



# Project description

The delivery includes project management, engineering, procurement, manufacturing and replacement of an economizer for a waste-to-energy boiler (Line 1) in Uppsala, Sweden. Also included in the project was to replace panel walls including cladding with Inconel® 625 on site. The following was included in the scope:

- Left and right sidewall for 2nd pass
- Roof for 2nd pass
- Rear wall for 2nd pass
- Economizer
- Connection tubes
- Inconel cladding

During 2015 the panel walls and economizer were replaced. The economizer was delivered in 26 sections. A temporary steel structure was built and placed next to the crane for pre-assembly of the economizer sections.

In addition to the economizer replacement, approximately  $150 \text{ m}^2$  of Inconel-cladded panel walls and screen tubes were installed in the 3rd pass. All panels were lowered through the roof of the boiler house.





Client: Vattenfall AB Year: 2015-2016

#### **Milestones**

Contract: 18-03-2015 Manufacturing: 18-05-2015 Installation: 28-07-2015 Hand over: 14-08-2015

#### Data

Fuel: Waste

Steam temperature: 201 °C Steam pressure: 16 bar

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# 2015 project milestones

- Early July: established scaffolding outside boiler and dismantled insulation sheeting
- July 20 to August: shut down boiler, established scaffolding inside boiler, dismantled panel walls and existing economizer, installed new panel walls and economizer, pressure tested and cladded Inconel to site welds
- Mid-August: completed installation

# 2016 project milestones

- Mid-July: shut down boiler
- Mid July to beginning of August: established scaffolding inside boiler and panel walls were prepared for cladding by sandblasting
- Beginning of August to mid-August: cladded Inconel, performed by semi-automatic robots on vertical panel walls and manually on horizontal walls and places unsuited for robots. Total area cladded on site was approximately 125 m<sup>2</sup>.



Vattenfall AB, Heat Sweden Operations produces, distributes and sells electricity, district heating and cooling in Sweden.



#### Babcock & Wilcox

Energivej 16 6670 Holsted Denmark

Phone: +45 72 40 74 65

# www.babcock.com/renewable







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