



Air Liquide Large Industries

Demineralised water for the biggest refinery in Europe at Shell Pernis

Client



Air Liquide is a world leader in gases, technologies and services for industry. The Large Industries division provides industrial gas and energy solutions that are vital to industrial production assets. Pernis is such an example of a cogeneration plant, located inside Shell's Rotterdam refinery and supplying steam to the Pernis refinery and electricity to the national grid.



Case

After a study to replace the existing steam installation at the Pernis refinery, Shell decided to outsource the production of steam and electricity since it no longer considered it a core activity. Shell uses steam in various production processes and in building and storage tank heating. Offering a Cogen, Air Liquide provides steam (700 T/h) to Shell and electricity (300 MW) mainly to the national grid. Air Liquide is responsible for the design, construction and operation of the Cogen and was looking for a partner who was prepared to develop a demineralised water plant in a similar way. Due to the critical nature of the installation, alongside reliability and availability, quality is considered just as important for this high-yield Cogen application.

Solution

Under a long term DBFO contract, Evides Industriewater is the partner of choice by:

- financing the investment;
- designing and building a state of the art demin water plant with a capacity of 1,055 m³/h;
- handling the day-to-day operation and maintenance.

Features

Start of operation	2008
Product	Polished water
Source	Industrial water (drinking water quality)
Max. capacity	1,055 m ³ /h
Technology	IX - RO
Redundancy	N-1 (backed-up by a fleet of mobile reverse osmosis units)
Conductivity	< 0,2 µS/cm
Total Organic Carbon	< 50 ppb



Your innovative water partner

As part of Evides, the Dutch drinking water company, Evides Industriewater has been a reliable and inventive water partner for the industrial sector for nearly 50 years. Evides Industriewater supplies nearly 150 million m³ of process water each year (of which 20 million m³ via re-use solutions) and treats a similar quantity of waste water.

These services are provided via almost 90 facilities, which are built, owned and operated by Evides Industriewater throughout Northwestern Europe.

www.evidesindustriewater.nl