



Key Benefits

- A total solution for the power plant water and wastewater treatment needs
- An efficient design that takes into consideration the varying quality of the feed water from seawater to muddy flood water
- A novel technology and reliable design that meant trouble free operation and minimum downtime
- Timely execution which was imperative for the startup of this power plant
- Full local support and customer service, in a world-class quality, from a well established company



Water & Wastewater Treatment Plants for Asam-Asam Steam Power Plant - Kalimantan-Indonesia

A Case Study



Key Data

Location	Asam Asam , Kalimantan - Indonesia
Plant Type	Desalination, Water and Wastewater Treatment, Demineralisation and Chemical Injection
Capacity	Different Capacities for Various Packages
Use	Power Plant
Client	Sumitomo Corporation/ Toshiba Plant Kensetsu JV
End User	PLN
Contract Type	Design & Build on a Turnkey Electromechanical Basis

Introduction

The Indonesian government awarded an international consortium, comprising Sumitomo Corporation and Toshiba Plant Kensetsu, a contract for a 2x65 MW coal-fired power plant for the city of Banjarmasin, located on the island of Kalimantan. This USD \$300 million project was financed by the World Bank.

This project was truly unique and undeniable challenging due to many reasons, including; The salinity of the water source/the Asam River during the dry season, with the location being very close to the sea. This proximity causes a wide range of hourly changes in the quality of the raw water with the total dissolved solids varying from 30 to 27,000 mg/l, and the suspended solids varying from 5 to 690 mg/l.

Scope of Work

Metito was responsible for the design and erection of the complete electromechanical works for this package, which comprised of the following treatment plants:

- River Water Treatment Plant with a capacity of 2x480 m³/h, incorporating solids contact clarification, sludge dewatering system and chemical handling facilities
- Seawater Reverse Osmosis Plant, constructed in 2 streams
- Brackish Water Reverse Osmosis Plant with a capacity of 360 m³/day
- Demineralisation Plant for the Packed Bed process, with a capacity of 360m³/day, comprising 2 streams of cation and anion columns followed by mixed bed polishers
- Ash and Coal Runoff (ACRO) Wastewater Treatment Plant with a 12m³/h capacity
- Metal Cleaning Wastewater Treatment Plant for boilers and air pre-heaters
- Sanitary Sewage Treatment Plant
- Skid-mounted cooling water chemical dosing packages
- Supply of chemicals for operation of the water and wastewater systems and cooling tower

