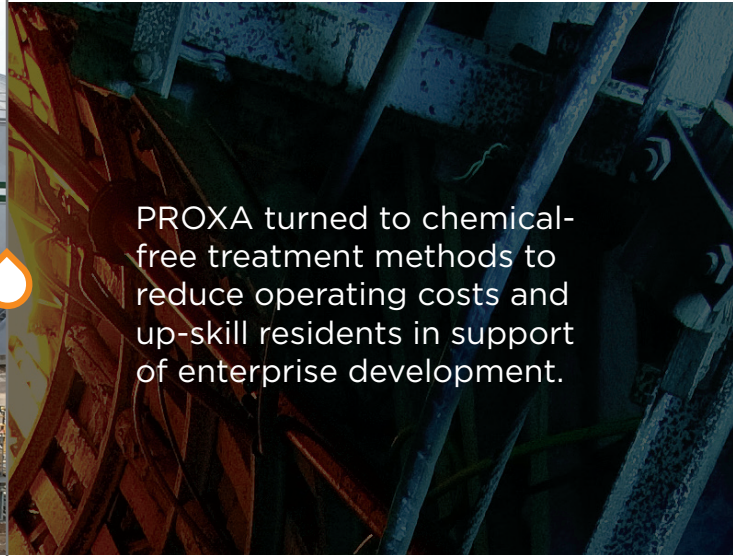


AVON PEAKING POWER PLANT, SOUTH AFRICA

GAS TURBINE INJECTION WATER



PROXA turned to chemical-free treatment methods to reduce operating costs and up-skill residents in support of enterprise development.

THE CHALLENGE

The Avon Peaking Power plant in South Africa – owned by IPR-GDF Suez, Legend Power Solutions (LPS), Mitsui and the Peakers Trust – needed a high specification demineralisation water plant for the production of ultra-pure water suitable for gas turbines.

OUR SOLUTION

FATA approached PROXA to deliver a solution. As such, PROXA designed, built and commissioned an electro deionisation (EDI) plant as the polishing unit instead of traditional ion exchange.

HOW PROXA ADDED VALUE

The advantage of an EDI plant is that no chemicals are used and therefore there is no need for bulk chemical storage on site, operational (chemical) costs are reduced and there are no added problems associated with waste disposal and environmental concerns. PROXA also turned to pre-manufactured skids to minimise site installation thereby enabling seamless integration with the client's civil, electrical and other mechanical works.

FEED WATER

Municipal supply

PRODUCT WATER

Demineralised water compliant for use in gas turbines

PERFORMANCE TARGET

- ◇ Product flow rate 20m³/hr
- ◇ Product conductivity: 0.1 µS/cm
- ◇ Availability: 95%

PROCESS

- ◇ Sand filtration (SF)
- ◇ Granular Activated carbon (GAC)
- ◇ Reverse Osmosis (RO)
- ◇ Electro Deionisation (EDI)

SOCIAL ENGAGEMENT

PROXA actively supported the plant owners' local procurement policy by employing and up-skilling locals from the area.

Client: IPR-GDF Suez, Legend Power Solutions (LPS), Mitsui and the Peakers Trust

Commissioning Client: FATA