Customer Success Story

Location: United States

AMI system powers clean energy with specialized RO-EDI system

In the power generation industry, access to high-quality water for cooling purposes can be a significant challenge. AMI systems address this challenge.

Challenge

The power generation industry heavily relies on water for cooling. Access to water supply with the required quality for cooling purposes can be challenging.

The customer, a global leader in gas power technology, is committed to engineering accessible and sustainable energy solutions.

The customer needed a robust water treatment system for their turbine inlet chilling coil condensate water.

The system needed to be shielded from direct sunlight and harsh environmental conditions.

The feed water, with a conductivity of 40 microSiemens/cm, was sourced from the plant's condensate water.

The target conductivity level for the permeate water was stringent: Less than 1 microSiemens/cm.

Solution

Applied Membranes Inc designed and built a comprehensive **70 GPM (16 m3/h) RO-EDI** (Reverse Osmosis–Electrodeionization) system specifically designed to meet the customer's requirements:

- 95% Recovery
- RO–EDI 90%
- Final product <0.10EC (more than 10 Megaohms)

AMI system was skid-mounted, pre-packaged, and designed to be shielded from direct sunlight and adverse environmental conditions for optimal performance and longevity.

Key Components:

- Booster feed pump
- EDI system
- Dechlorinated with SMBS injection
- Antiscalant and NaOH
- Conductivity/resistivity, flow, and pressure monitors

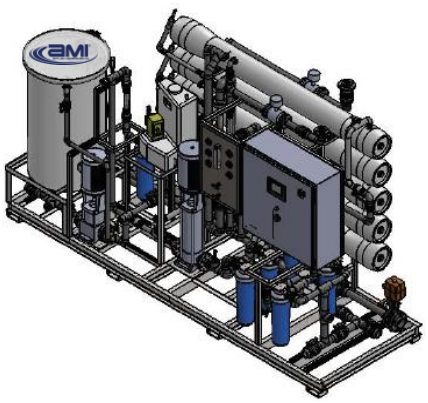
Results

This project empowers Applied Membranes' dedication to advancing sustainable water treatment in the power generation sector, contributing to a cleaner, more efficient energy landscape.

Quality assurance: As with all AMI systems, this system underwent rigorous factory wet-testing prior to shipment, ensuring functionality and adherence to quality requirements.

Easy integration: Skid-mounted and prepackaged, the AMI RO-EDI system was easy to install and integrate into the customer's operations.

Efficient operations: By consistently producing DM water at conductivity levels below 1 microSiemens/cm, AMI system enabled the customer's plant to operate at peak efficiency.



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