Water scarcity and environmental issues are the challenges in front of power industry. This calls for an integrated approach to Water & Wastewater Treatment management.

To address these challenges, Praj offer integrated, energy-efficient solutions for water and wastewater treatment for industrial applications. The range of solutions include Water Treatment Plants, conventional and advanced Biological Systems, Membrane Based Systems, Thermal Solutions to ensure high quality and consistency of treated water.

Praj’s experience of handling the most challenging Wastewater, Sea water Desalination, Advanced Tertiary Treatment of Secondary Treated Sewage Water and complete Water & Wastewater management enables end-to-end solutions with lower footprints and optimized solutions.
**Water Treatment Solutions**

Praj offers end-to-end solutions for Water treatment
- Pre treatment
- Demineralization
- Ultra Filtration System
- Reverse Osmosis
- Electro Deionization

**Desalination**

Rapid industrialization, growth in urbanization demands more water resources creating the problem of water scarcity. Desalination of Sea water & brackish water is one of the feasible and identified solutions to counter this problem. Praj provides state-of-the-art solution with optimum energy recovery.

**Advantages**
- Low cost per m³ of water production
- Lower footprint

**Effluent Treatment & Recycling Solutions**

Praj’s experience of handling the challenging wastewater management applications enables end-to-end solutions delivering lowest foot print, higher recovery of water and highly optimized systems.

**Power Industry : Effluent sources & treatment**
- Cooling tower blow down
- Wet FGD wastewater treatment
- Wastewater from Off sites & utilities
- Ash water recycling
Praj extend its offerings by providing additional source of make up water through tertiary treatment plant of secondary treated sewage, through advanced Biological Treatment and state-of-art Membrane Technologies.

**Advantages**

- Better treated water quality than fresh aqua resources with SDI <3.
- Lower dependency on fresh aqua resources in water scarce region.
- Lower cost for per m³ of treated wastewater.
- Can convert wastewater to boiler feed water quality.
- Lower footprint with faster execution capabilities.

**Sewage to Resource**

**Zero Liquid Discharge Solutions**

- Innovative solutions for Zero Liquid Discharge
- In house manufacturing capabilities
- More than 350 installations for Evaporators and Agitated Thin Film Dryer (ATFD)

**Typical Application**:

- Reject from Effluent Recycling System
- Reject from FGD Wastewater Treatment
- High TDS wastewater application

**Advantages**

- 3 decades of rich experience in Evaporation technology
- State-of-art Agitated Thin Film Dryer (ATFD)
FO membrane based Brine Concentrator

Praj Advantage:
• Lower Capex & Opex in comparison with Thermal solutions
• Modular plants resulting into lower footprint & faster execution

State-of-the-art effluent recycling & ZLD solutions for Power Industry. Offering – WTP, ETP, ERS, MBC, ZLD (MEE & ATFD)

Praj- Oasys Value Proposition

High quality Membrane Brine Concentrator systems and related equipment

Experience with complex effluents, Recycling systems & ZLD Solutions

Technology Landscape based on energy use

- Thermal Processes: High energy, Not modular, large capex
- Mechanical Evaporation (Praj): High recovery – up to 85%, Low maintenance
- Membrane Brine Concentrator (MBC)™: Modular - Membrane based system, High quality product water, Clean, reusable brine
- Salt Water RO: Simple, Modular
- Reverse Osmosis (NF/RO)
- Crystallizer (Praj)

Praj Worldwide
Argentina I India I South Africa
Thailand I UAE I USA

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