







present

4th Edition

# DESALINATION IN INDIA

Progress, Upcoming Opportunities and New Technologies

September 1-2, 2022 | Le Meridien, New Delhi











# Desalination in India

#### Mission

- The desalination segment in India has progressed well in the past three-four years. The current capacity is estimated to be over 600 mld and it is projected to grow to more than 2,200 mld in the next few years. Several states including Tamil Nadu, Gujarat and Karnataka are coming up with municipal desalination plants and a capacity of more than 1,500 mld is expected to be added from this segment in the coming years. A second desalination plant at Nemmeli, Tamil Nadu is being set up to cater to the drinking water supply requirement of around 0.9 million residents of Chennai.
- On the industrial front, many new desalination plants are being planned. A desalination plant is being built exclusively for providing water to industries including the Dahej PCPIR (Petroleum, Chemicals and Petrochemicals Investment Region) in Bharuch. Expected to be commissioned by the first half of 2022, it will help reduce the dependence on water from the river Narmada.
- Meanwhile, the segment is testing the adoption of new technologies such as electrodialysis, forward osmosis and membrane
  distillation. The National Institute of Ocean Technology in association with the Lakshadweep Administration has initiated a pilot project
  of ocean thermal energy conversion (OTEC) powered desalination plant in Kavaratti, Lakshadweep. The first-of-its-kind project generates
  drinking water from sea water using indigenous technology, green energy and environmentally friendly processes.
- In order to reduce costs, wind and solar energy sources are being harnessed to operate the plant. Energy efficient pumps are also being deployed to make it more cost effective.
- Going forward, an investment of around Rs 200 billion is expected in the desalination segment. Moreover, government initiatives, such
  as the National Water Mission, and the continuation of the Ocean Services, Modelling, Application, Resources and Technology (OSMART) scheme will drive growth in this market.
- The mission of this conference is to highlight the trends and progress in the desalination segment and identify the upcoming
  opportunities. It will highlight the experience of utilities and private players, discuss the unresolved challenges, and also showcase
  recent advancements and innovations in technology.

#### Target Audience

- The event is expected to draw participation from executives, managers and decision-makers from:
  - Thermal power plants
  - Water supply and sewage boards
  - Municipal corporations
  - Desalination plant suppliers
  - Consulting engineers
  - EPC contractors

- Technology providers
- Research and development organisations
- Equipment providers
- Other manufacturing units: steel, cement, sugar, paper pulp, oil refinery
- Other consultants and financiers
- Etc.

#### AGENDA/STRUCTURE

#### TRENDS, DEVELOPMENTS AND OUTLOOK

- What are the key trends and developments in the desalination market in India?
- What are the emerging requirements? What are the technologies and best practices followed?
- What are the upcoming opportunities? What are the key issues and challenges?

#### **FOCUS ON MUNICIPAL SEGMENT**

- What has been the experience of key utilities in the desalination segment? What are some of the noteworthy projects and recent initiatives?
- What are the technology advancements and best practices?
- What are the capacity expansion plans? What are the upcoming opportunities?

#### **FOCUS ON INDUSTRIAL SEGMENT**

- What has been the experience of key industries in the desalination segment? What are some of the noteworthy projects and recent initiatives?
- What are the technology advancements and best practices?
- What are the capacity expansion plans? What are the upcoming opportunities?

#### COSTS, VIABILITY AND FUNDING

- What has been the trend in the capex of desalination plants?
- ❖ What has been the trend in Rol?
- What are the key cost components? What is the share of land, technology and energy costs in the total plant cost?
- What has been the trend in production and 0&M costs? What are the tariffs and charges being levied by ULBs?

### THERMAL DESALINATION TECHNOLOGY: EXPERIENCE, CHALLENGES AND FUTURE OUTLOOK

- What are the key features of thermal desalination technologies?
- What is the current state of deployment?
- What are the specific issues and challenges?

## MEMBRANE DESALINATION TECHNOLOGY: EXPERIENCE, CHALLENGES AND FUTURE OUTLOOK

- What are the key features of membrane desalination technologies?
- What is the current state of deployment?
- What are the specific issues and challenges?

#### BRINE DISPOSAL MANAGEMENT

- What are the environmental consequences of seawater desalination processes? What environmental norms and regulations are in place?
- What are the current practices for brine management?
- What steps can be taken to reduce the impact on the environment?

#### **0&M OF DESALINATION PLANTS**

- What is the role of IT and automation systems in the O&M of desalination plants?
- What are the most promising technologies/solutions (PLC and SCADA, AL, ML, etc.)?
- What are the upcoming opportunities?

#### **ENERGY MANAGEMENT PRACTICES**

- What are the specific energy requirements for desalination plants? What have been the trends in the share of energy costs in the total costs?
- What are some of the initiatives being undertaken with regard to optimisation of energy costs?
- What are the future strategies regarding energy management in the desalination space?

#### **FOCUS ON EQUIPMENT**

- What are the new and emerging requirements in terms of equipment and materials for the desalination segment (membranes, pumps and valves, pipes, filtration systems, steel, cement, concrete etc.)?
- What are the new advancements and innovations in this segment? What is the demand and supply outlook?
- What are the procurement strategies and how have they evolved?

## PRIVATE PLAYER'S PERSPECTIVE: EXPERIENCE, CHALLENGES AND OPPORTUNITIES

- What has been the experience of private players in the desalination segment?
- What are their expectations from the government and other stakeholders?
- What is their future outlook for the segment?

# **Desalination in India**

#### Some of the previous key speakers include (in alphabetical order):

- Rajneesh Chopra
   Global Head Business Development,

   VA Tech Wabao
- Arunava Das
   Head, Water Management,
   Tata Steel
- Kanchan Ganguly
   Deputy General Manager,

   Suez India
- Anand Gupta
   Application Head,
   Pall Water
- Uday G. Kelkar Managing Director,
   NJS Consultants
- R. Mohan
   Superintending Engineer (Desalination),
   Chennai Metropolitan Water Supply and
   Sewerage Board
- R. Nagarajan
   Senior Manager, Chemistry,
   NTPC Tamil Nadu Energy Company

- Luis Navarro
   Business Development Manager,

   Hach
- Ajay Popat
   President,

   Ion Exchange
- Bharath Rajarao
   Regional Director India
   Mc Elroy
- D.G. Ramchandani
   Chief Engineer,

· R. Rohith

- Gujarat Water Supply & Sewerage Board
- Senior Manager, Chemistry,
  NTPC Tamil Nadu Energy Company
- Vikrant Sanglikar Country Head, McElroy
- Auszad Shaikh
   General Manager, Maritme Board,
   Govt of Andhra Pradesh

- Vikrum Kishore Sharma
   Principal Consultant,
   EWE Tec Consultants LLP
- V.Sivakumar
   Deputy General Manager, Sales & Marketing,
   VA Tech Wabaq
- R. Srinivas,
   Deputy General Manager,
   Mangalore Refinery and Petrochemicals
- H Subramaniam
   Executive Director,

   Fitchner Consulting Engineers
- Nalinakshini U.
   Deputy Chief Engineer, Mysore,
   Karnataka Urban Water Supply and Drainage
   Board
- Shirish Uchgaonkar
   Chief Engineer, Water Supply Projects,
   Municipal Corporation of Greater Mumbai
- L. Vijayan
   Deputy Chief Engineer,
   Tamil Nadu Water Supply & Drainage Board

#### Previous Participants

Aadhar Housing Finance Limited, Aditya Birla Housing Finance, Ambuja Cements Limited, Ambuja Neotia, Anarock Property Consultants, APREA Asia, Archetype Agency Pvt. Limited, Arth Design Build, Ashok B. Lall Architects, Axis Bank, Axis Securities, B.G. Shirke Construction, Bandhan Bank, Bengal Urban Infrastructure Development, Bengaluru Development Authority, BHEL, Biltech, Brick Eagle Group, BrickEagle, Building Materials & Technology Promotion Council/Ministry of Housing & Urban Affairs, Buildmate, Campus Ville, CBRE, Chhattisgarh Housing Board, Citibank, Clyde Pumps, Colliers International, Covestro (India) Private Limited, CREDAI, CSIR - Structural Engineering Research Centre, Cushman & Wakefield, Dalmia Cement (Bharat) Limited, Dalmia Group, Deceunick Profiles India, Delhi Development Authority, Delhi Urban Shelter Improvement Board, Deloitte Touche Tohmatsu India LLP, Dow Chemicals, DSP Merrill Lynch, Edelweiss Housing Finance Limited, ElL, Elematic India, Embassy Property Development Pvt Ltd, Emerald Haven Realty, Equis Housing, Ernst & Young LLP, Eros Group, Essel Infra Projects, Flowserve, Frontier Electrocomponents and Systems Pvt. Ltd., Fullerton India Credit Company Limited, GEMS City/Shiv Niketan (P) Ltd, GIZ, GIZ Deutsche Gesellschaft, Government of India, Government of Kerala, Gradiant, GRUH Finance, Habitat for Humanity India, HAch, HDFC Bank, HDFC Housing Finance, HIL Limited, Housing Board Haryana, Housing Development Finance Corporation Limited, Hydranautics, ICICI Bank, ICRA Limited, IFC, IFMR Capital Finance, IIFL Home Finance, Indusind Bank Ltd., JLL, JMC Projects, Jones Lang LaSalle Property Consultants (India) Pvt Lid, Kalyani Township, KEI Industries, KPMG, L&T SL, M.P. Housing & Infrastructure Development Board, Magicrete Building Solutions Pvt. Ltd., Mahindra Lifespace Developers, Mahindra Rural Housing Finance Ltd., Marsh, McElroy, Micro Housing Finance, Ministry of Housing & Urban Affairs, Ministry of Housing and Urban Affairs, Ministry of Rural Development, Municipal Corp. Calicut Govt. Kerala, Muthoot Home Finance Company Ltd., Muthoot Housing Finance Company Ltd., Nangia Andersen LLP, NAREDCO, NCB India, NIIF India, Nippon Paint (India) Private Limited, Nisus Finance Services, Nomura Financial Advisory & Securities, Outlook Money, PAII Water, Peninsula Land Limited, Pidilite, Pratibha Syntex, Premier electric, Prism Johnson, PWC, Regal Buildtech, Reliance Nippon Life Asset Management Limited, RICS, S B Scaffolding (India) PVT, LTD/A Saarvi Group Enterprise, Saint Gobain, School of Planning & Architecture, Schwing Stetter India, Sheltrex Karjat, Signature Global Group, Standard Chartered Bank, State Bank of India, Svarn Infratel Pvt Ltd, Swach Environment, Swan Housing, Tata Capital Housing, Tata Steel, TERI, The Fibre Cement Products Mfrs. Association, The India Cements, Thermax, U.P. Housing & Development Board, UAL Industries Limited, UltraTech Cement, Visaka Industries, Wabag, Yes Bank, Zephyr Peacock India, etc.

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#### **Registration Fee**

	Fee			
Delegates	INR	GST@18%	Total INR	Total USD
One delegate	22,500	4,050	26,550	380
Two delegates	37,500	6,750	44,250	632
Three delegates	52,500	9,450	61,950	885
Four Delegates	67,500	12,150	79,650	1,137
Five Delegates	82,500	14,850	97,350	1,391

- GST of 18% is applicable on registration fee.
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The conference is being organised by India Infrastructure Publishing, a leading provider of information on the infrastructure sectors through magazines, newsletters, reports and conferences. The company publishes Indian Infrastructure, Smart Utilities and Renewable Watch magazines. It also publishes a series of reports on the infrastructure sectors including Desalination Market in India and Wastewater Treatment & Reuse Market in India, Sewage Treatment Market in India and Municipal Solid Waste in India, Water in India & Coal-based Power Generation and Captive Power in India. It also publishes Urban Water & Sanitation News (a weekly newsletter).

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