

Desalination Systems

ANMD-MRS10-092 · Water & Environmental Technologies

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US\$

WHY THIS REPORT

Desalination systems turn seawater and brackish water into fresh supply — increasingly the backbone of water security in arid and coastal regions, spanning seawater and brackish reverse osmosis, thermal MED/MSF, and hybrid and renewable-powered designs. This decision-grade study sizes the global market three ways — value, installed capacity (MLD) and plants — across desalination technology, energy source and application, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone, not an afterthought — and its sharpest tension. Desalination delivers climate-resilient supply but carries energy and brine-disposal stakes that responsible design must manage.

Mapped Sustainable Development Goals:

SDG 6 Clean Water & Sanitation	SDG 9 Industry, Innovation & Infrastructure	SDG 11 Sustainable Cities & Communities	SDG 12 Responsible Consumption	SDG 13 Climate Action
--	---	---	--	---------------------------------

Measurable sustainability outcomes assessed:

- Drought-proof, climate-resilient water supply
- Falling specific energy consumption and renewable coupling
- Brine and marine-ecology impact management
- Energy/carbon intensity and intake entrainment as material risks

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	9 Report Parts	7 Regions Covered	40+ Country Markets
2025–32 Forecast Horizon	4 Forward Scenarios	25+ Companies Profiled	5 SDGs Mapped

REPORT COVERAGE

Geographic scope: North America, Europe, Asia Pacific, Latin America, Africa, Middle East and Rest of World — with named country intelligence. The Middle East dominates capacity; Asia Pacific scales fastest; the Americas grow on drought; other regions assessed on their own merits.

MARKET OVERVIEW

From energy-intensive last resort to renewable-coupled supply — where desalination becomes climate-resilient water.

Desalination is moving from energy-intensive last resort to a competitive, renewable-coupled supply source. Demand is driven by water scarcity, climate stress and population growth across the Middle East, Asia Pacific and the Americas. The market is read three ways — value, installed capacity and plants — and forecast under four scenarios, each region reported separately.

- **Middle East dominates capacity** — Saudi Arabia, the UAE and Israel, combining giga-scale plants with sovereign investment and renewable coupling
- **Asia Pacific scales fastest** — China, India and Australia, where coastal water stress and industrial demand drive new SWRO capacity
- **Americas grow on drought** — United States, Chile and the Caribbean, responding to chronic drought and mining water needs
- **Renewable coupling is the differentiator** — solar- and wind-powered desalination and energy-recovery devices reshape the cost and carbon profile

REGIONAL OUTLOOK

Across seven reporting regions, the report separates leading markets from high-growth and emerging ones — each profiled in full rather than aggregated into Rest of World.

Region	Stage	Lead Markets & Drivers
Middle East	Capacity leader	Saudi Arabia, UAE, Israel — giga-scale plants, renewable coupling
Asia Pacific	Fastest scaling	China, India, Australia — coastal stress, industrial demand
Europe	Mediterranean demand	Spain, Italy — Mediterranean scarcity, island supply
North America	Drought-led	United States — California & Texas drought, industrial reuse
Latin America	Emerging	Chile, Mexico — mining water, coastal cities
Africa	Frontier	Egypt, Morocco, South Africa — scarcity, blended finance

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
<ul style="list-style-type: none"> • Water scarcity & drought resilience • Falling specific energy consumption (ERD) • Renewable-powered desalination • Population & coastal-urban growth • Industrial & strategic water security 	<ul style="list-style-type: none"> • Energy intensity & carbon footprint • Brine disposal & marine-ecology impact • High CAPEX & financing complexity • Membrane fouling & pre-treatment burden • Coastal permitting & intake constraints

SEGMENTATION SNAPSHOT

By Technology	Seawater RO (SWRO) · brackish-water RO (BWRO) · thermal (MED / MSF) · hybrid
By Energy Source	Grid-powered · renewable-powered · waste-heat / cogeneration
By Application	Municipal · industrial · commercial & residential
By End User	Utilities · municipalities · industry · buildings
By Business Model	Equipment sales · EPC · Water-as-a-Service
By Scale	Decentralised · commercial · municipal / utility-scale

TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

Part I — Report Foundation, Discovery and Strategic Intelligence

- › Chapter 1. Scope, Methodology and Report Architecture
- › Chapter 2. Industry Discovery Summary — Desalination Systems
- › Chapter 3. Executive Intelligence and Decision Dashboard
- › Chapter 4. Strategic Findings, Materiality and Investment Verdict Preview

Part II — Market Intelligence, Sizing, Forecasting and Segmentation

- › Chapter 5. Industry Overview and Market Evolution
- › Chapter 6. Market Dynamics
- › Chapter 7. Global Market Size and Forecast, 2020–2032
- › Chapter 8. Market Segmentation Analysis
- › Chapter 9. End-User and Demand-Side Intelligence
- › Chapter 10. Pricing, Cost and Commercial Model Intelligence

Part III — Regional and Country Intelligence

- › Chapter 11. Global Regional Intelligence Framework
- › Chapter 12. North America Market Intelligence
- › Chapter 13. Europe Market Intelligence
- › Chapter 14. Asia Pacific Market Intelligence
- › Chapter 15. Latin America Market Intelligence
- › Chapter 16. Africa Market Intelligence
- › Chapter 17. Middle East Market Intelligence
- › Chapter 18. Rest of World Market Intelligence

Part IV — Technology, Innovation and Category-Specific Intelligence

- › Chapter 19. Technology Landscape and Architecture
- › Chapter 20. Emerging and Next-Generation Technology Intelligence
- › Chapter 21. Category-Specific Intelligence Module
- › Chapter 22. Research, Innovation and Funding Landscape

Part V — Company, Competition, Patent and Project Intelligence

- › Chapter 23. Competitive Landscape
- › Chapter 24. Company Profiles
- › Chapter 25. Mergers, Acquisitions, Partnerships and Ecosystem Intelligence
- › Chapter 26. Patent Landscape and Intellectual Property Intelligence
- › Chapter 27. Project, Deployment and Case-Study Intelligence

Part VI — Sustainability, ESG, SDG, Climate and Natural-Capital Intelligence

- › Chapter 28. Sustainability Intelligence Suite
- › Chapter 29. ESG Intelligence and Double Materiality
- › Chapter 30. ESG and Sustainability Framework Alignment
- › Chapter 31. SDG Intelligence
- › Chapter 32. Carbon, Net-Zero and Climate-Mitigation Intelligence
- › Chapter 33. Water, Biodiversity and Natural-Capital Intelligence
- › Chapter 34. Circular Economy and Resource-Security Intelligence
- › Chapter 35. Social Impact, Human Capital and Community Intelligence
- › Chapter 36. Climate Risk, Adaptation and Resilience Intelligence

Part VII — Supply Chain, Policy, Legal, Economics and Finance

- › Chapter 37. Value Chain, Supply Chain and Geopolitical Intelligence
- › Chapter 38. Policy, Regulation and Incentive Intelligence
- › Chapter 39. Legal, Contracting and Risk-Allocation Intelligence
- › Chapter 40. Unit Economics, CAPEX, OPEX and Return Analysis
- › Chapter 41. Investment, Sustainable Finance and Bankability Intelligence

Part VIII — Scenario, Future Intelligence and Final Due Diligence Verdict

- › Chapter 42. Scenario Analysis and Future Intelligence
- › Chapter 43. Sustainability Due Diligence Framework and Data-Room Index
- › Chapter 44. Risk Register, RAG Rating and Anti-Greenwashing Screen
- › Chapter 45. Bottom-Line Verdict and Strategic Recommendations
- › Chapter 46. Implementation Roadmap and Stakeholder Playbooks

Part IX — Annexes, Directories and Reference Material

- › Chapter 47. Methodology Annex
- › Chapter 48. Corporate Directory and Company Intelligence Annex
- › Chapter 49. Patent Directory and Patent Intelligence Annex
- › Chapter 50. Project Intelligence Annex
- › Chapter 51. Forecast Annex
- › Chapter 52. Sustainability KPI Annex
- › Chapter 53. Reference Annexes

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans global EPC and water majors, thermal-desalination specialists, and renewable-desalination innovators. Deal activity — giga-scale SWRO awards, renewable-coupled projects and brine-management ventures — signals a market consolidating around low-energy, bankable supply.

Representative players profiled in the full report:

Veolia Environnement S.A. · ACCIONA, S.A. · IDE Technologies Ltd. · Doosan Enerbility Co., Ltd. · SUEZ SA · and 20+ further profiled players across EPC majors and renewable-desalination innovators.

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a conditional investment view.

KEY QUESTIONS THIS REPORT ANSWERS

- How large is the global desalination market, and how fast will it grow to 2032?
- Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- How does renewable coupling change the cost and carbon profile?
- Who leads, and where is the competitive and patent white space?
- Is the investment case bankable — and under what conditions?
- How does the category align with the SDGs, water security and brine-management expectations?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, climate, water and natural-capital intelligence and a decision-ready bankability view in a single architecture.

- **Triangulated sizing** — every market read three ways so value, volume and the physical-unit views reconcile rather than conflict.
- **Region-honest forecasting** — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- **Integrated evidence base** — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- **No-fabrication discipline** — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- **Anti-greenwashing rigour** — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- **Decision-first structure** — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear, conditional investment view.

WHO SHOULD BUY THIS REPORT

Investors, manufacturers, developers, utilities, lenders and policymakers, and strategic corporate planners and decision-makers.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at www.anewmarketdynamics.com · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at www.anewmarketdynamics.com. The full detailed table of contents will be sent directly to your registered company email address.