

# Atmospheric Water Generation Systems

## ANMD-MRS10-096 · 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

Atmospheric water generation (AWG) systems extract drinking water directly from humidity in the air — offering decentralised, infrastructure-independent supply for homes, communities and remote sites, spanning refrigeration-based condensation, desiccant capture, solar-powered and hybrid designs. This decision-grade study sizes the global market three ways — value, generation capacity (litres/day) and units — across generation 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 central tension. AWG expands water access and resilience but is energy-intensive, making renewable coupling essential to a credible sustainability claim.

#### Mapped Sustainable Development Goals:

<p><b>SDG 6</b> Clean Water &amp; Sanitation</p>	<p><b>SDG 9</b> Industry, Innovation &amp; Infrastructure</p>	<p><b>SDG 11</b> Sustainable Cities &amp; Communities</p>	<p><b>SDG 12</b> Responsible Consumption</p>	<p><b>SDG 13</b> Climate Action</p>
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#### Measurable sustainability outcomes assessed:

- Clean water without piped infrastructure
- Drought- and disaster-resilient supply
- Off-grid, low-carbon potential when solar-powered
- Energy-per-litre, refrigerant impact and circularity 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

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

### 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 drives premium adoption; Asia Pacific scales on humidity; Africa and disaster markets grow on access needs; other regions assessed on their own merits.

## MARKET OVERVIEW

### From niche device to resilience supply — where humidity becomes off-grid, low-carbon drinking water.

Atmospheric water generation is moving from niche device to a recognised resilience and off-grid supply option. Demand is driven by water scarcity, disaster resilience and decentralised-supply needs across the Middle East, Asia Pacific and Africa. The market is read three ways — value, generation capacity and units — and forecast under four scenarios, each region reported separately.

- **Middle East drives premium adoption** — the UAE, Saudi Arabia and Israel, where scarcity and sovereign backing fund solar-AWG deployment
- **Asia Pacific scales on humidity** — India, China and Southeast Asia, where high humidity and water-access gaps suit AWG economics
- **Africa and disaster markets grow** — humanitarian, remote-community and off-grid applications where piped supply is absent
- **Solar coupling is the differentiator** — renewable-powered AWG turns humidity into off-grid, low-carbon drinking water

## 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	Premium leader	UAE, Saudi Arabia, Israel — scarcity, solar-AWG, sovereign backing
Asia Pacific	Humidity-scaled	India, China, Southeast Asia — humidity, access gaps
Africa	Access-driven	South Africa, Nigeria, Kenya — remote supply, humanitarian
North America	Resilience niche	United States — disaster resilience, premium residential
Europe	Emerging	Spain, Italy — drought niche, off-grid
Latin America	Frontier	Brazil, Mexico — remote communities, resilience

## KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
<ul style="list-style-type: none"> <li>• Water scarcity &amp; access gaps</li> <li>• Decentralised &amp; infrastructure-free supply</li> <li>• Disaster &amp; humanitarian resilience</li> <li>• Solar-powered &amp; off-grid potential</li> <li>• Desiccant &amp; efficiency improvements</li> </ul>	<ul style="list-style-type: none"> <li>• High energy use per litre</li> <li>• Climate / humidity dependence</li> <li>• High unit cost vs piped supply</li> <li>• Water-quality &amp; mineralisation needs</li> <li>• Scalability &amp; maintenance constraints</li> </ul>

## SEGMENTATION SNAPSHOT

<b>By Generation Technology</b>	Refrigeration-based · desiccant-based · solar-powered · hybrid · large-scale industrial
<b>By Energy Source</b>	Grid-powered · solar-powered · hybrid
<b>By Application</b>	Municipal · industrial · commercial & residential
<b>By End User</b>	Utilities · municipalities · industry · buildings
<b>By Business Model</b>	Equipment sales · EPC · Water-as-a-Service
<b>By Scale</b>	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 — Atmospheric Water Generation 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
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- › 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
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- › 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
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- › 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 pioneering AWG specialists, solar-hydropanel innovators, and refrigeration and desiccant developers. Deal activity — solar-AWG deployments, humanitarian partnerships and capacity scale-up — signals an emerging market racing toward cost-competitive resilience supply.

### Representative players profiled in the full report:

Watergen Ltd. · SOURCE Global, PBC · GENAQ Technologies S.L. · Akvo Atmospheric Water · Aquaria / Skywater · and 20+ further profiled players across AWG specialists and solar-hydropanel 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

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- How large is the global AWG market, and how fast will it grow to 2032?
- Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- How does solar coupling change the cost and carbon profile versus grid-powered AWG?
- 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 access and energy-intensity expectations?

## WHY ANMD — THE DIFFERENCE

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*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

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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](http://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](http://www.anewmarketdynamics.com). The full detailed table of contents will be sent directly to your registered company email address.