

Pact Renewables Advocates Strategy for Transforming Seawater Desalination Assets Into Multi-Sectoral Economic Hubs

The company urges a rethink of seawater desalination plants by governments and industry as hubs integrating water, energy, Al facilities and mineral recovery.

SYDNEY, NEW SOUTH WALES, AUSTRALIA, October 11, 2025 /EINPresswire.com/ -- Founder and Director of Pact Renewables Pty Ltd, <u>Dr Aharon Arakel</u> said that, "While desalination plants have successfully secured urban water supplies, they can now play a much greater role in supporting national resilience and economic competitiveness. Large desalination facilities built over the past two decades are technological monoliths that have successfully delivered water security, yet their full potential remains untapped." He added, "By integrating them with clean-energy generation, AI data-centre cooling, and sustainable mineral-recovery systems, these hubs can become strategic national assets that deliver multiple economic and environmental benefits while reinforcing national resilience in water, energy and data security."

He noted that, "Governments worldwide are grappling with the dual challenge of energy transition and digital expansion. Data centre construction is currently accelerating in every major city, drawing heavily on power and cooling water. At the same time, the shift to hydrogen economy, electric mobility and battery storage is driving demand for high-value minerals. Colocating desalination, green hydrogen energy and AI infrastructure can turn what was once considered waste brine into globally significant critical mineral supply chains, including feedstock for the manufacture of magnesium metal, while reducing the environmental impacts of brine discharge on coastal ecosystems."

Pact Renewables' vision builds on more than three decades of work in saline-waste valorisation and zero-discharge technologies. Its <u>Salpro</u> process recovers high-purity mineral products from seawater desalination brines, while its MBC (Mineral-Based Composites) technology provides a safe method for containing any remaining residues. Together they enable desalination plants to achieve "zero waste discharge" and generate new revenue streams.

"The challenge is as much strategic as it is technical," Dr Arakel emphasised. "We need coordinated national and state roadmaps that identify where integration makes sense, how infrastructure corridors can be shared, and what policy and investment frameworks will attract utilities, Al developers, and investors. The opportunity window is open now for governments and other stakeholders to shape their digital and clean-energy expansion strategies, whilst investing

in demonstration of appropriate technologies to leverage mineral recovery from seawater desalination brines to add to national economic prosperity."

Recognised as a Top Innovator at the 2023 World Economic Forum, Pact Renewables now invites governments, utilities, asset developers, commodity traders, technology providers and investors to participate in strategic discussions on integrating desalination-based hubs. "With sound planning and collaboration, seawater desalination plants can evolve from serving communities with water to delivering multiple additional economic and environmental benefits." Dr Arakel concluded.

About Pact Renewables

Pact Renewables is a clean tech company and expert advisory on the sustainable management of saline waste, leveraging its advanced technology platform and the knowledge developed over three decades of engagement with industry, governments and communities. The company provides best-fit, technology-enabled solutions to saline waste challenges, whilst contributing positively to value chain and sustainability objectives of our clients.

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