

PACT RENEWABLES LAUNCHES DATA CENTRE-DESALINATION FRAMEWORKS TO SUPPORT HYPERSCALE DEVELOPMENT IN WATER-STRESSED REGIONS

Integrated data centre-desalination frameworks and strategic advisory supporting resilient AI infrastructure developments in water-stressed regions.

SYDNEY, NEW SOUTH WALES , AUSTRALIA, June 26, 2026 /EINPresswire.com/ -- Pact Renewables Pty Ltd today announced the launch of a new strategic advisory and technology support offering centred on three integrated Data Centre-Desalination frameworks designed to support hyperscale developers in establishing resilient water infrastructure strategies for AI infrastructure developments in water-stressed regions.

The announcement reflects growing recognition that, alongside energy availability, long-term water resilience is becoming an increasingly important consideration for hyperscale AI developments. As projects expand into regions offering abundant renewable energy, land and digital connectivity, developers are also facing increasing scrutiny regarding how both operational and cooling-water requirements will be secured over the life of a project without placing additional pressure on limited community water resources.

Founder and Director Dr [Aharon Arakel](#) said the discussions are evolving beyond the efficiency of cooling technologies alone.

"Modern direct-to-chip and other advanced liquid-cooling technologies continue to reduce water consumption, which is an important achievement," Dr Arakel said. "However, in many water-stressed regions, the broader question increasingly being asked is: where will the water come from, how resilient is that supply over decades of operation, how will residual streams be managed, and can the project demonstrate that it will not compete with existing community water resources?"

"As governments, regulators and local communities increasingly assess the resilience of the entire water system supporting major AI infrastructure developments - not simply the efficiency of cooling technologies - hyperscale operators may increasingly find that securing independent, sustainable water infrastructure becomes as strategically important as securing energy infrastructure."

"Just as developers routinely secure long-term energy supplies for major AI campuses, establishing resilient and independent water infrastructure may increasingly become a strategic requirement for projects proposed in water-stressed regions." Dr Arakel explained.

To support hyperscale developers in addressing these emerging challenges, Pact Renewables has launched three complementary frameworks tailored to different hydrogeological settings and infrastructure requirements:

- Data Centre-Seawater Desalination framework - designed for coastal developments by integrating seawater desalination with long-term data centre water infrastructure.
- Data Centre-Brackish Water Desalination framework - designed for inland and peri-urban developments using brackish groundwater, recycled water and other non-potable water resources requiring desalination.
- Dual-Mode Hybrid Data Centre-Desalination framework - integrating seawater and brackish-water desalination pathways within a single adaptable architecture capable of accommodating changing source-water chemistry, staged campus expansion and evolving operational requirements.

Dr Arakel said "These frameworks are technology-neutral and designed to complement, rather than replace, existing cooling architectures, including direct-to-chip, immersion, liquid and hybrid cooling systems. Our objective is not to redesign hyperscale cooling systems but to support developers in establishing robust, defensible and scalable water-resilience strategies that complement the cooling technologies they have already selected while strengthening long-term project resilience, operational flexibility, regulatory readiness and community confidence."

Pact Renewables combines specialist strategic advisory services with proprietary technology platforms, including Salpro™ for mineral recovery from saline concentrates and MBC™ technology for Zero Liquid Discharge (ZLD) and Zero Waste Discharge (ZWD) pathways. Together, these capabilities provide integrated options for water sourcing, desalination, residuals management and, where appropriate, mineral recovery within a single infrastructure strategy.

Drawing on more than four decades of international experience in groundwater, hydrology, desalination, wastewater treatment, saline-water management and mineral recovery across Australia, the United States, the Middle East, China and Europe, Dr Arakel has worked extensively in water-stressed regions where desalination has become an increasingly important climate-independent water source. Much of this work has focused on addressing the environmental challenges associated with desalination concentrates and saline residuals, leading to the development of Pact Renewables' proprietary technology platforms.

"Every region is represented by its own hydrogeological setting, regulatory requirements and

community expectations," Dr Arakel said. "Our role is to support hyperscale developers in understanding those factors early, identifying resilient water infrastructure pathways suited to local conditions, and positioning their projects for sustainable long-term growth."

He concluded by inviting expressions of interest from hyperscale developers, AI infrastructure investors and data centre operators seeking specialist strategic advisory services and enabling technology solutions to support their AI infrastructure developments in water-stressed regions worldwide.

ABOUT PACT RENEWABLES

Pact Renewables is an Australian technology and advisory company specialising in saline-water management, desalination, mineral recovery, Zero Liquid Discharge (ZLD) strategies and management of intractable residuals. The Company provides [technology-enabled advisory services](#) and proprietary solutions supporting water resilience, circular infrastructure and sustainable industrial development.

Pact Renewables was recognised as a Top Innovator Company at 2023 World Economic Forum held in Davos.

Aharon Arakel
Pact Renewables Pty Ltd
+61 420 231 338
aharon.arakel@pactrenewables.com

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