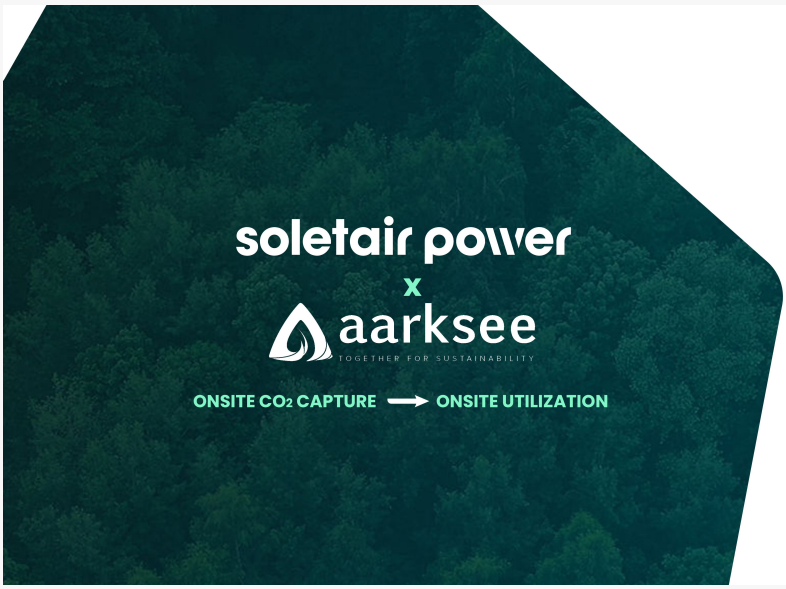
Aarksee and Soletair Power Launch First-Ever Building-Integrated Microalgae Carbon Capture Solution In The Middle East

CO2 after being captured from the air by buildings, will go through microalgae-based carbon sequestration onsite.



Soletair Power x Aarksee for onsite Carbon Capture and Utilization using Microalgae

LAPPEENRANTA, FINLAND, March 12, 2025 /EINPresswire.com/ -- Aarksee Group and Soletair Power have formed a strategic alliance to deploy the world's first integrated microalgae-sequestered carbon capture technology across the Middle East and India. This partnership merges cutting-edge innovation with nature-based solutions to significantly accelerate the region's path toward a carbon-neutral future.

The collaboration combines two complementary technologies: Soletair Power's patented Building-integrated Direct Air Capture (DAC) system, which extracts CO2 from air through existing HVAC infrastructure, and Aarksee's pioneering microalgae-based carbon sequestration and green mineralization techniques. Together, they offer a holistic approach to carbon reduction that operates within existing building systems while generating valuable byproducts.

This integrated solution targets high-impact sectors including construction, real estate, airports, industrial manufacturing, and transportation—with initial deployment focused in GCC countries with extreme climates followed by India where diverse environmental conditions create both challenges and opportunities for advancing carbon capture innovation.

"This partnership directly addresses the unique cooling challenges in the Middle East's extreme climate," emphasized Petri Laakso, CEO of Soletair Power. "Building on our Power-to-X demonstration success at Expo 2020 Dubai, we're now poised to simultaneously reduce HVAC energy consumption and create negative emissions across the region."

Dr. Senthil Chinnasamy, CSO of Aarksee Group, added: "By integrating our nature-based solutions with Soletair Power's advanced technology, we are creating a unique carbon capture ecosystem that does not just reduce emissions—it transforms them into sustainable resources while supporting the circular economy."

The partnership's next milestone includes developing a comprehensive carbon methodology to be registered with an international registry, ensuring their solutions meet global standards for verification and implementation. This framework will facilitate rapid scaling across various sectors, supporting the region's ambitious climate targets.

Both companies are committed to working closely with governments, businesses, and organizations throughout the GCC and India to accelerate the transition toward a low-carbon economy through practical, scalable solutions.

About Aarksee Group
Aarksee Group, head quartered in Saudi Arabia & operating in the Middle East & India, specializes in providing carbon advisory, contract research and consulting services with a focus on nature-based carbon capture, CO2 sequestration and sustainable waste management. The company leverages microalgae and green mineralization strategies alongside large-scale carbon projects involving mangrove plantations, terrestrial reforestation, and artificial reef installations. Aarksee has recently expanded its sustainability initiatives by investing in Alternate Wetting & Drying (AWD) technology in India to mitigate methane emissions from rice cultivation. Additionally, Aarksee is actively advancing “biocrude” production technology to transform organic waste into renewable biofuels. By integrating 4IR technologies and AI, Aarksee develops customized carbon capture solutions that promote sustainability and support clients in achieving net-zero goals.

About Soletair Power
Soletair Power is a Finnish cleantech innovator developing scalable modular technologies to capture carbon dioxide from ambient air. Their flagship product integrates direct air capture (DAC) systems with existing building ventilation infrastructure, helping property owners reduce carbon footprints through both captured and avoided CO emissions. The captured carbon can be mineralized or permanently stored, creating a "carbon sink" effect for buildings while supporting sustainability objectives.

Petri Laakso
Soletair Power Oy
info@soletairpower.fi
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