

Press release

Harnessing artificial intelligence and renewable energy
**Empower and ASHRAE join hands to develop the third
generation District Cooling Systems**

Dubai - United Arab Emirates, January, 29, 2024: Emirates Central Cooling Systems Corporation PJSC (Empower), the world's largest district cooling services provider, and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) join hands to develop the third generation District Cooling Systems through a Memorandum of Understanding (MoU). The signing ceremony took place during the ASHRAE Conference 2024 in Chicago, U.S, marking a pivotal moment in their joint commitment to advancing the district cooling sector through scientific study and innovation. Under the MoU, ASHRAE will oversee a research project initiated by Empower as part of the company's commitments to enhance the District Cooling sector and drive the industry to unprecedented levels. Leveraging the collective expertise of both organizations within a professional academic framework, the research study aims to drive scientific advancements that will shape the future of district cooling systems.

Empower stated that the project to develop a third-generation district cooling system is one of the most important outcomes of the company's strategic roadmap, which aims to strengthen the global leadership of Empower and the UAE in the field of district cooling, by implementing integrated and advanced infrastructure, leveraging sustainable ideas and solutions, and offering future plans that decision-makers to formulate policies for smart and sustainable cities

The research study aims to investigate and analyze the emerging trends and advancements to identify the forthcoming generation of DC technology, specifically concentrating on the transition from traditional, first and second-generation DC systems to innovative third-generation models. The study shall investigate into the environmental merits of next-generation DC systems, with a particular emphasis on their heightened efficiency, AI-driven energy management, and consequent reductions in energy consumption. It will also assess how these systems can significantly contribute to international efforts to protect the planet and enhance sustainability by offering clean, sustainable, and environmentally friendly cooling solutions.

On this occasion, His Excellency Ahmad bin Shafar, CEO of Empower, said that entering into the new agreement stems from the organization's values derived from the spirit of Dubai, and its constant endeavor to harness scientific advancements to promote economic goals and a commitment to serving human communities. This dedication to progress also mirrors Empower's founding principles. "The MoU reflects Empower's keenness to strengthen its strategic collaboration with international stakeholders, prestigious universities, academic institutions, and global research centers to conduct scientific research in the field of district cooling aiming to pioneer advanced, practical solutions that enhance the energy efficiency, indoor cooling services, contribute to sustainability efforts. The proposed research aims to invent entirely new cooling methods that

eliminate the need for electricity conversion by directly utilizing, storing, and transferring thermal energy, thereby addressing the challenges of climate change.

For her part, Ginger Scoggins, President of ASHRAE, said: "ASHRAE's collaboration with Empower underscores our joint commitment to advancing technology and sustainability within the district cooling industry. Our goal is to use our collective expertise to conduct research, foster innovation and promote a sustainable and energy-efficient future."

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