

Focus Areas



COOLING

SUB SECTOR	DESCRIPTION
Efficient Cooling Management Solutions	<ul style="list-style-type: none">• Cooling-as-a-Service (CAAS): Highly promising and innovative business models providing energy efficient solutions in commercial and residential settings.• IoT-based Cooling Management Solutions: Advanced IoT solutions, enhanced with AI/ML capabilities, enable predictive features and AI-driven control and monitoring in residential and commercial settings.• Thermal Energy Storage: Solutions that enhance efficiency and operational flexibility by leveraging opportunities such as Time-of-Day (ToD) tariffs, peak demand reduction, nighttime cooling benefits, and increased resilience during peak conditions.
Alternative Cooling Solutions	<ul style="list-style-type: none">• Evaporative Cooling (Direct/ Indirect): Direct/indirect and hybrid cooling systems implementable in mixed climates.• Non-Compressor Cooling: Alternative cooling methods such as absorption, adsorption, solid/ liquid desiccant based or thermoelectric processes in residential/commercial settings.• Solar Thermal Cooling: Solutions utilizing solar heat to enhance or drive a cooling cycle.
Advanced Cooling Materials	<ul style="list-style-type: none">• Low GWP/Natural Refrigerants: Solutions that use low GWP refrigerants in cooling appliances• HTF Additives: Heat Transfer Fluid (HTF) Additives improving heat transfer and enhancing system efficiency in centralized HVAC plants.

SUB SECTOR	DESCRIPTION
Retail Cold Chain	<ul style="list-style-type: none"> • CaaS Models for Integrated Cold-chain Development: CaaS (Cooling-as-a-Service) solutions for integrated cold-chain development providing scalable, service-based cooling solutions that optimize energy use, reduce capital investment, and improve efficiency. • Temperature Controlled Logistics: PCM-based solutions for cold chain logistics, emphasizing cost-efficiency, energy optimization/RE integration, and product-market fit. Cost-effective and efficient mid- and last-mile solutions for transporting and storing frozen goods, fruits, and vegetables.



BUILDINGS

SUB SECTOR	DESCRIPTION
Low Carbon Design Elements	<ul style="list-style-type: none"> • Passive Design Elements: Key focus on scalable productized components such as cool roof coatings, walling systems, ventilated façades, and high-performance shading/glazing systems that improve thermal comfort. • Precast/Prefabricated Systems: Scalable regional solutions with a focus on modular designs and thermal optimization to ensure maximum operational energy efficiency along with reduced embodied carbon.
Low Carbon Materials	<ul style="list-style-type: none"> • Low Embodied Carbon/Carbon-Positive Materials: CO₂-sequestered materials (e.g., cement, bricks, AAC blocks), focus on regional solutions and alternatives to typical red bricks which encompass both non-fired (such as CSEB etc) and clay bricks (hollow clay bricks, lime-based bricks, etc.) • Recycled C&D Waste for Construction: Recycled C&D waste (for block work, concrete, cement solutions, etc.) • Recyclable/Low Carbon Materials for Interior Finishes: Low carbon tiles, doors/door frames, windows, etc.
Energy and Water Efficiency	<ul style="list-style-type: none"> • AI/ML based Building Management Systems: AI/ML augmented solutions for operational efficiency in residential and commercial settings. • Heat Pumps: Ground/Air-source and hybrid heat pumps tailored for diverse climatic conditions for heating (including hot water) and cooling applications in residential, commercial, and institutional built spaces. • Grey Water Recycling Systems: Energy-efficient and non-chemical treatment of grey water systems.