

WORLD REFRIGERATION DAY • 26th JUNE

#NEXTGENCOOLING

NEXT GENERATION COOLING TECHNOLOGY LOOKS...



ESSENTIAL

Next Generation Cooling will be in greater demand due to rising global temperature caused by climate change, urban growth and increased data generation and transmission.



GREEN

Next Generation Cooling will be more energy efficient with less environmental impact as the Montreal Protocol and Kigali Amendment speed transition to refrigerants with lower potential for ozone depletion and greenhouse warming.



INNOVATIVE

Next Generation Cooling will use advanced technologies such as Magnetic Cooling which uses a magnetic field to manipulate temperature, Thermally Driven Cooling which uses absorption or adsorption processes to transfer heat, Evaporative Cooling systems that take advantage of water absorbing heat when it evaporates, Thermal Storage, and Solid State Cooling that uses solid-state materials, such as thermoelectric materials, to achieve cooling.



SMART

Next Generation Cooling will use intelligent control systems to adjust cooling based on occupancy levels, to predict maintenance, and to analyze historical data, weather data, and real-time inputs to determine efficient energy settings.



SUSTAINABLE

Next Generation Cooling will operate more efficiently reducing unit energy consumption and including systems that utilize renewable energy resources such as thermal energy stored in the Earth.

WORLD REFRIGERATION DAY FACTS:

- Cost-effective, energy-efficiency improvements of over 50% are possible for refrigerators and air conditioners.
- Air Conditioning units are forecast to rise to 1.5 billion in 2030 from 900 million in 2019.
- Household refrigerator stocks are forecast to rise to 2 billion in 2030 from 1 billion in 2019.
- 20% of electricity used in buildings is for space conditioning and cooling energy demand is anticipated to triple by 2050.
- 1.3 billion tonnes of food – a third of total food produced for human consumption – is lost or wasted annually, including 475 million tonnes due to insufficient cooling.
- 30% of the world's population is exposed to deadly heatwaves more than 20 days a year.

Source: UNEP Cooling and Climate Change Fact Sheet



www.unep.org/ozonaction