

Information Release

Sizzling Temperatures, Air Conditioning and Energy Penalty: Dilemma for the Gulf Countries

Kuwait, 18th May 2011. Do we have to pay energy penalty while implementing the last challenge of the Montreal Protocol that aims to protect the Ozone Layer? This was the question at the core of the symposium and discussion concluded here in Kuwait city today.

Symposium was organized jointly by ASHRAE's Kuwait Chapter and UNEP's OzonAction on **"Refrigerants; Challenges & Prospects in High-Ambient Temperature Countries" at the Kuwait University.**

The last remaining Ozone Depleting Substances i.e. HCFCs (Hydrochlorofluorocarbons), mainly used in the air-conditioning, have to be eliminated under the Montreal Protocol on substances that deplete the ozone layer. The implementation of HCFC phase out would start just about 18 months from now. The alternatives to HCFCs do exist but majority of them are based on HFCs, emission of which contribute to global warming due to their very high global warming potential (nearly 2000 times more than carbon dioxide). The problem is aggravated further in countries where the ambient temperatures are more than 35 degree Centigrade when energy efficiency starts getting affected. The energy efficiency falls rapidly when temperatures reach beyond 45 degree centigrade. In Kuwait the temperatures reach more than 50 degree centigrade. Not only air conditions are needed for the longer time, but due to use of high ambient temperature, efficiency of the air conditioning machine also drops down.

" The importance of this event stems from the interlinked challenges that encompass environmental concerns, codes related to energy consumption in the buildings , and above all the compliance with the Montreal Protocol by the countries that have high ambient temperature" said Minister of Public Works Dr. Fadhil Safar Ali Safar while inaugurating the first ever such symposium , participated by nearly 100 participants that included major manufacturers of the refrigerants like Honeywell and DuPont, along with manufacturers of the air conditioners like Carrier, Daikin, Johnson Control.

"Refrigeration and air-conditioning sector is one of the most needed and important sectors that contribute notably to national economies particularly in countries with harsh climatic conditions like gulf countries" he added.

“The use of air conditioning in the gulf countries is rising rapidly. Ozone Layer Protection should not come at the cost of lower energy efficiency and emissions of the Green House Gases” said Rajendra Shende, Head of the UNEP OzonAction which assists all the 146 developing countries in making informed technology and policy choices. The symposium which was also supported by Environmental Public Authority (EPA) and Ministry of Electricity and Water of Government of Kuwait was held at the backdrop of the more stringent energy efficient standards for air conditioning announced by Government of Kuwait and United Arab Emirate. Such policies are expected to drive technology innovation for more energy efficient technology in air conditioning sector.

The industries agreed to collaborate with Kuwait University to test the existing refrigerants at high ambient temperature and develop the technology road map to ensure that energy penalty due to high ambient temperature is mitigated.

Kuwait Foundations for Advance Sciences (KFAS) has agreed to give priority for the consideration of the project in Kuwait to optimize and develop the technologies for the air conditioning in high ambient temperature. The project proposal would be jointly developed by the Kuwait University and EPA, with technical support of UNEP and ASHRAE.

Notes:

UNEP , United Nations Environment Programme is the United Nations system’s designated entity for addressing environmental issues at the global and regional level.

See www.unep.org

The **Montreal Protocol on Substances That Deplete the Ozone Layer** is an international treaty designed to protect the ozone layer by phasing out the production and consumption of a number of substances believed to be responsible for ozone depletion. Due to its widespread adoption and implementation-all the countries in the world have ratified the treaty - it has been hailed as an example of exceptional international cooperation with Kofi Annan quoted as saying it is "Perhaps the single most successful international agreement to date..."

The OzonAction’s Compliance Assistance Programme (CAP) : is mandated to assist 146 developing countries to enable them to meet the compliance with the Montreal Protocol. It operates from Paris and the regional offices of UNEP i.e. Bangkok, Nairobi, Bahrain and Panama city.

UNEP DTIE OzonAction website : www.unep.org/ozonaction

American Society for Heating, Refrigeration, Air-Conditioning Engineers (ASHRAE)

ASHRAE, founded in 1894, is an international organization. The mission of ASHRAE is to advance the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve the evolving needs of the public and related entities. It aims at promoting sustainability through research, standards writing, publishing and education.

ASHRAE website: www.ashrae.org

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