

November 15, 2019

Daikin and Nikken Sekkei Selected as a Finalist of The Global Cooling Prize

Daikin Airconditioning India Pvt. Ltd., and Daikin Industries, Ltd. are pleased to be selected as a finalist of The Global Cooling Prizeⁱ (GCP) together with Nikken Sekkei Ltdⁱⁱ. This announcement was made today in New Delhi, India.

The GCP is an international competition endorsed by the Indian government, Mission Innovation, and the Rocky Mountain Institute to explore technologies that can significantly reduce the climate impact of room air conditioners compared to equipment currently on the marketⁱⁱⁱ. For this initiative, Daikin and Nikken Sekkei teamed up to propose a new concept for room air conditioning. We are very honored to be selected as a finalist of this prize.

This new concept employs a technology which can achieve comfort and energy savings – and at the same time – ensure consistent room temperature and humidity by adequately controlling multiple indoor units in one room. Another new concept is that it utilizes the vaporization heat of water to further increase the energy efficiency of the equipment. The proposed equipment uses HFO-1234ze(E) refrigerant.

Daikin adopted an *out of the box* approach by controlling multiple units in one room and by choosing the refrigerant HFO-1234ze(E) which has a low GWP. However, this causes other environmental challenges such as the increased use of raw materials as a result of the larger equipment size.

Daikin's overall refrigerant policy is to support a *diversity of refrigerants*. Daikin believes that R32 is the most balanced refrigerant for many applications in terms of safety, energy efficiency, economy and the environment, and that it will be the standard for the mid- to long-term horizon. R32 based equipment is an established technology, being sold in more than 70 countries including India.

Daikin's participation in the Global Cooling Prize is consistent with our "Environmental Vision 2050" which provides a roadmap for the company to carbon neutrality by 2050. In line with that vision, Daikin is in a continuous search to reduce energy consumption and refrigerant impact. Our participation in the GCP is a part of that effort to examine energy efficiency technology with low GWP refrigerant alternatives.

ⁱ <http://globalcoolingprize.org/>

ⁱⁱ Nikken Sekkei is one of the topmost design (architecture and engineering) companies based in Tokyo, Japan

ⁱⁱⁱ The baseline is a mini-split room air conditioner of 5.3 kW (1.5 TR), with an EER of 3.5 W/W at 35°C and an annual energy consumption of 2,969kWh/year, using R22 refrigerant with a GWP of 1760 (based on IPCC AR5 report).

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