CSR for Value Provision

Environment (See pages 16–18)
Introduce state-of-the-art technologies to the market in order to address environmental and energy issues.

New Value Creation (See pages 19–20)
Share dreams and ambitions inside and outside Daikin to realize a healthy, comfortable lifestyle through air.

Customer Satisfaction (See pages 21–22)
Provide peace of mind and reliability through a focus on customer orientation, experience, performance, and advanced technologies.

Human Resources (See pages 23–24)
Respect individual personalities and values, and maximize the potential of each employee so that they can benefit Daikin and society as a whole.
Promoting the Spread of Energy Efficient Technology through Dialogue and Collaboration with Governments and International Agencies

Why is it important?
Concerns over Rising Environmental Impacts from Sharply Increasing Demand in Emerging Countries

Currently, only 8% of the population owns air conditioning in countries that require it due to high temperatures, such as those in Asia and Africa. However, the number of regions requiring air conditioning will increase further in the future due to rising temperatures, while demand for air conditioning is expected to increase sharply thanks to economic growth mainly in emerging countries. According to The Future of Cooling, a report published by the International Energy Agency (IEA) in 2018, the number of air conditioners in the world is forecast to roughly triple from the current amount to 5.6 billion units by 2050. In addition, this sharp increase in air conditioners generate new peak electricity demand equivalent to all the electricity generated in Japan, the U.S. and Europe today.

Amid concerns of rising CO₂ emissions from electricity consumption, the IEA report cites the need to strike a balance between the predicted increase in air conditioning demand and reducing electricity consumption. Toward this end, it recommends the greater use of renewable energy along with the spread of energy efficient air conditioners and legislation on appropriate energy conservation standards.

As the only manufacturer in the world to produce both air conditioners and refrigerants, Daikin has a responsibility to harness its worldwide operations in helping to find solutions to these issues through the reduction of environmental impacts achieved with air conditioning.

![Graph showing CO₂ emissions from space cooling](image)

**Forecast of CO₂ Emissions from Space Cooling in 2050**

- **Increased efficiency of equipment**
- **Spread of renewable energy**
- **Approx. 90% reduction**

**Note:** Graph figures compiled by Daikin based on IEA The Future of Cooling
**DAIKIN’S APPROACH**

**Promoting the Spread of Energy Efficient Air Conditioners by Creating Energy Efficiency Standards**

Daikin has promoted the spread of energy efficient air conditioners since before the IEA’s recommendation. We are committed to spreading worldwide air conditioners using inverter technologies to reduce electricity consumption through more efficient operation.

Until now, we have focused on developing indicators and mechanisms for assessing the energy efficiency of air conditioners mainly in India and emerging countries in ASEAN. We have also supported the introduction of cooling seasonal performance factor (CSPF) as an indicator properly assesses the energy saving effects of inverters. As a result, in fiscal 2015, India rolled out a voluntary energy labelling program using CSPF as an assessment criterion. Daikin will continue to provide assistance aimed at the introduction of a unified program across ASEAN.

**DAIKIN’S PERFORMANCE**

**Expanding Initiatives to Mexico and Brazil**

Currently, Daikin is implementing initiatives in various regions in order to expand its activities in Asia to the rest of the world.

In Mexico, where air conditioner demand is growing on the back of the country’s economic development, the government has established a target to reduce greenhouse gas (GHG) emissions 22% by 2030. However, the low cost of electricity has meant little progress is being made in conserving energy.

In fiscal 2016, Daikin together with Mexico's National Institute for Electricity and Clean Energy conducted a demonstration test comparing non-energy efficient (non-inverter) air conditioners, which account for more than 70% of the local market, with Daikin's energy efficient (inverter) air conditioners. The results showed that the air conditioners with an inverter are about 60% more energy efficient because they use a highly efficient refrigerant. With these results in hand, we presented the effects of reduced electricity demand from the greater use of energy efficient air conditioners to the government of Mexico.

With our track record recognized, in 2018 our environmental conscious air conditioner promotion project proposed to Mexico was adopted for a Collaboration Program with the Private Sector for Disseminating Japanese Technology administered by the Japan International Cooperation Agency (JICA), with the support of the governments of Japan and Mexico.

In June 2018, a delegation from the government of Mexico visited Japan to observe Daikin’s manufacturing plant and other facilities, where we shared knowledge related to energy efficiency policy. We aim to create markets for environmentally conscious air conditioners through workshops and other opportunities to report the quantification of energy efficiency effects based on the results of the demonstration test in Mexico. In addition, under a similar JICA project in Brazil, we are raising awareness and making policy recommendations aimed at the spread of energy efficient air conditioners.
I find it very reassuring that Daikin has worked to promote dialogue globally on the future of air conditioning. Going forward, it will be more important than ever for industry, government and other air conditioning stakeholders to work together to find simple, high efficiency and low-carbon solutions. I have high expectations for the role Daikin will play in promoting such global collaboration.

**Voice**

**Expectations for Daikin to Contribute to Global Efforts for the Future of Air Conditioning**

Mr. John Dulac  
Energy Analyst, IEA

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**NEXT CHALLENGE**

**Creating a World Where People in Need Benefit from Air Conditioning and Environmental Impacts Are Controlled**

To sustain the air conditioning business globally, Daikin will need to promote the spread of environmentally conscious products around the world and to introduce solutions to social issues advocated by the IEA from the standpoint of a business.

For this reason, Daikin will work even more closely on engagement with the IEA and the governments of each country to lobby for energy conservation and CO2 emission reduction. Our goal is to create a world without added environmental impacts from air conditioning while benefiting from the cooling and heating provided, by offering products and services that satisfy the needs of customers, including not only energy conservation, but also affordable prices and usability.

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**Confirming the Right Direction through Dialogue with International Agencies**

The IEA released a report during the course of Daikin’s initiatives, and in October 2018, Daikin invited Mr. John Dulac, an IEA analyst for building energy technology and policy, to be part of a seminar and panel discussion. The goal of the seminar was to confirm the direction of initiatives based upon a thorough understanding of the report’s recommendations.

During the panel discussion attended by persons in charge from Daikin’s operations in Europe, the U.S. and Asia, the IEA presented its stance that there are already technologies for balancing growing demand for air conditioning with controlling energy demand, but these solutions need to be spread further. On top of this, the IEA provided three other recommendations. First, manufacturers need to not only revolutionize technology for cheaper, higher efficiency air conditioners, but also use creative ingenuity for spreading the use of products and technologies. Second, the promotion of attractive technologies and services for consumers is key to spreading these products and services. Finally, third, the spread of these technologies requires that manufacturers correctly convey the advantages of technologies to government policymakers.

During the seminar, details of Daikin’s Environmental Vision 2050 were also shared, and confirmation was made that Daikin will continue cooperating with the IEA going forward through close communication.