Climate Change and Environmental Risk Management

Adopted at the end of 2015 and went into effect at the end of 2016, the "Paris Agreement" is the latest version of the Global Climate Agreement following the Kyoto Protocol. The "Paris Agreement" not only agglomerates the global consensus on climate change, but also reflects how the countries facing the challenges of sustainable development are dealing with the issue. Although Taiwan is not a member of the United Nations nor a contracting state of the United Nations Climate Convention, based on the responsibility of the Earth Citizens, the Taiwan Legislative Yuan has adopted the "GHG Emission Reduction and Management Act" in 2015 and sets out the objective of reducing “Greenhouse gas emissions in 2050 by 50% or more compared to 2005", and the objective will be reviewed and adjusted every five years in the future. This action is the determination of voluntarily reducing carbon emission that Taiwan declares to the international community.

Under the global trend, slowing greenhouse gas emissions is the inevitable direction, Taiwan as a part of the global supply chain, also faces the potential risks of climate change and the pressure of energy saving and carbon reduction. If we do not immediately respond to the climate change issues and relevant environmental laws and regulations and systems, there may be risks of legal penalties and losing the industry leading edge at the same time. Faced with the challenges of stakeholders and damaging the corporate reputation, therefore, we deeply understand the importance of climate change issues. The following illustrates the potential risks and opportunities of climate change and how to manage the issues.

Climate change may cause the following risks to operations:

1. With the impact of the greenhouse effect, global warming and extreme weather intensified, Taiwan has faced more severe threats from typhoons and floods in recent years. In some areas, due to the water shortage crisis, it has also seriously affected the water usage of industry and people's livelihood; therefore, it is necessary to invest more resources in natural disaster prevention, post-disaster facilities maintenance, operational energy access, etc.

2. Following the implementation of the "GHG Emission Reduction and Management Act", our country will conduct greenhouse gas emissions control in the future, open carbon rights and carbon trading, since the daily network, machinery room operation are dependent on a large number of energy support, followed by increased operating costs, CHT's finances will certainly be affected.

Opportunities and Management

The core competence and technology under our control may be the key to "energy saving, carbon reduction" for the industry in the future, facing the coming of mobile and cloud era, in simple terms, we applied the strategy with two aspects of internal and external, and committed to practice in assisting the industry moving toward the vision of environmental sustainability.

CHT is using the "Corporate Core Competencies" to develop energy-saving and carbon-reducing products to serve the community and consumers. We promote the concept of environmental sustainability through internal and external strategies and communicate with consumers and all stakeholders through the issuance of the "Corporate Social Responsibility Report" to complete and systematically organize all efforts in the environment sustainability.

(1) Internal; we use the organized, information systematic approach to set up the "Corporate Environmental Sustainability Strategy and Objectives" to implement the environmental actions, and with self-developed environmental information system to manage all the environmental information.

(2) External; we are in the "Green Products and Services" to provide enterprises with professional energy-saving technologies and services to assist the industry easily achieving the purpose of energy saving management.

We have used many years of experience in the development of the "Electricity Environment Monitoring and Information Communication System", in addition to integrate and monitor energy consumption equipment in various areas of the building, use the cloud platform to provide customers with energy efficiency calculations, equipment operation status and immediate notification, to achieve the predictability and prevention mechanisms to assist the enterprises reducing energy-saving and carbon-reduction threshold, and furthermore to achieve the objectives of energy-saving and carbon-reduction.

Strategy and Action

For the early response to current and future potential environmental and climate change relevant laws and regulations, international agreements, we adopt the following strategies:

(1) Pay close attention to the changes in domestic and foreign laws and regulations, and actively negotiate with the competent authorities and other stakeholders, to be fully prepared as soon as possible.

(2) Planning for an Environmental Sustainability Program:

We established the "Five-Year Plan for Environmental Sustainability Development Strategy and Objectives" in 2015, and actively expand our environmental protection initiatives with the aim of "Green Enterprise", "Green Sustainability" and "Green Innovation". In addition, we also promoted machinery room disaster reduction and climate adaptive programs, to strengthen the disaster response measures and reduce the climate risks.

(3) Introduce and Develop Renewable Energy:

In 2016, we announced the establishment of "Energy Office", locked in solar energy, wind power and LED three areas as the directions of development. Solar power will be in cooperation with subcontractors to build solar panels on the rental rooftop space, and after power generation connected to the grid, in addition to provide power to the rental contractor with the excess power can be sold to Taipower. Wind power is to enter the government tender project with active assessment or to cooperate with Taipower on wind power investment project with our telecommunication expertise and energy saving, carbon reduction experiences.

In addition, CHT also set up solar power module photovoltaic panels in some remote mountain base stations, to provide pollution-free clean energy, reduce energy consumption and carbon emissions, and also to provide the base station with emergency contact communications during natural disasters that led to interruption of Taipower power supply.

Finally, we are actively responding to the government's renewable energy development and purchased two million kWh of green electricity in 2015 as the fifth largest purchasing organization. In 2016, we again purchased four million kWh of green electricity as the second largest purchaser. In the future, we will continue to respond with actions to promote Taiwan moving towards a cleaner future.

(4) Greenhouse Gas Emissions Management Measures:

Continue to actively implement all types of energy, resource reduction and re-use activities, build and enhance the efficiency of renewable energy applications, and conduct annual greenhouse gas inventory, verification, and public disclosure of relevant information, and with self-developed "Environmental Sustainability Development Management Services System (refer to as EARTH system) to effectively control the environmental resources and environmental protection energy-saving efficiency, not only to help reducing the energy costs, but also improving the environmental management efficiency, since the vast majority of carbon emissions during the

operation process is from the supply chain, therefore, we also invite supplier partners to work together to implement sustainability activities, and build a sustainable life circle together.

(5) Improve the Products, Services and Processes:

In addition to lower the impact of operations and product services on the environment, we also see the crisis as a turning point, from the product and service-oriented aspects to reflect more possibilities, through green innovation services, such as video conferencing, electronic billing, cloud products and other technological innovations, we reduce the carbon footprint, and make good use of our technical advantages of the industry to enhance the existing products, use technology to create a smart city, such as smart taxi dispatch can reduce circling around, reduce fuel consumption, and continue to develop more efficient use of energy in the future, and explore more low carbon emission solutions with customers.