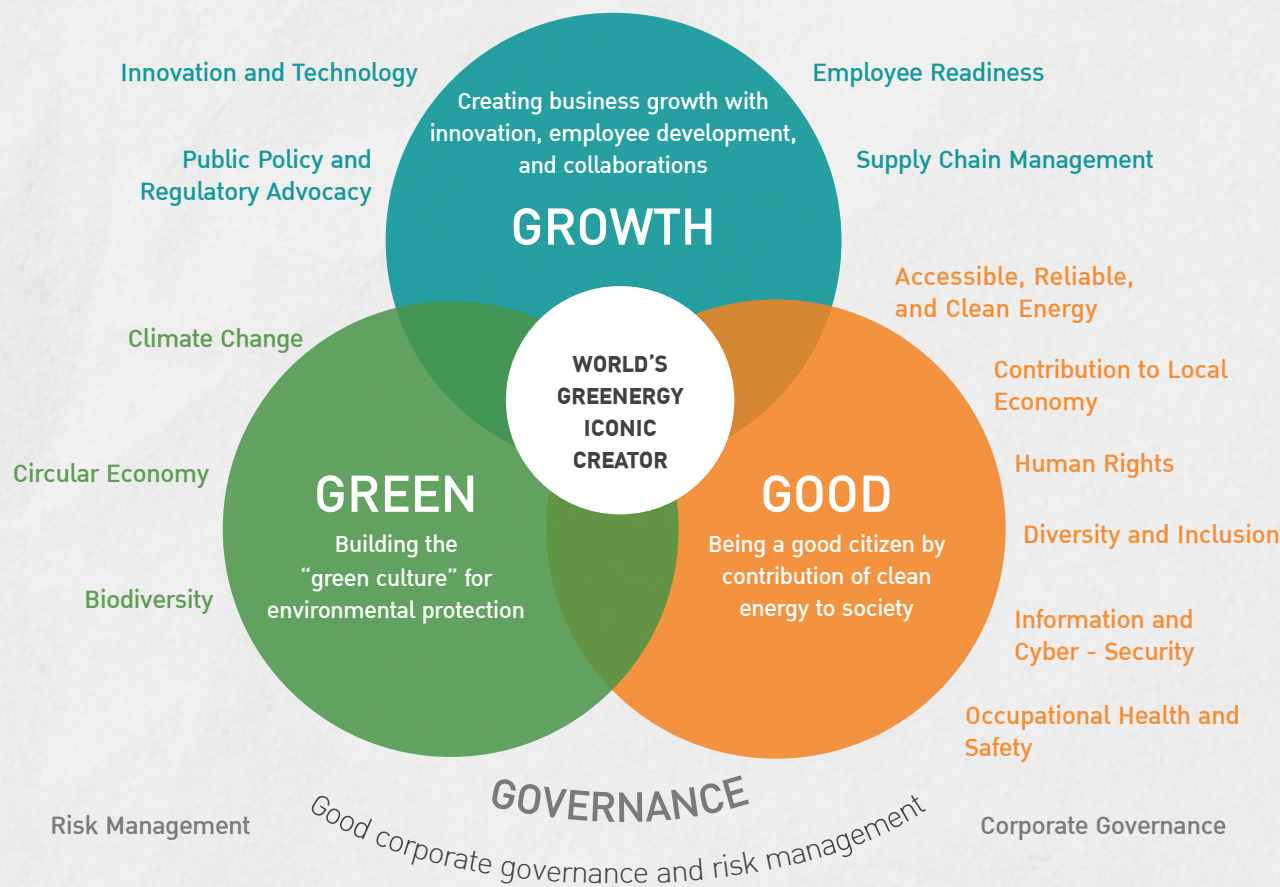




# SUSTAINABLE BUSINESS DEVELOPMENT POLICY

To strive for a sustainable corporate culture and achieve its SDG targets, BCPG Group has launched a sustainable business development policy. The policy focuses on creation of values in three dimensions: economic value or Growth, social value or Good, and environmental value or Green, all under the foundation of good governance. The policy, approved on April 17, 2018, contains the following details.



## **SUSTAINABLE BUSINESS DEVELOPMENT POLICY OF BCPG PUBLIC COMPANY LIMITED**

- **GOOD CORPORATE GOVERNANCE**

Operate and manage businesses with transparency and good governance, a stringent anti-corruption policy and comprehensive risk management of the entire value chain.

- **COLLABORATION WITH ALL SECTORS TO PROMOTE SUSTAINABLE DEVELOPMENT**

Both in terms of law and regulation, strengthen public awareness, collaborate with government sector, business sector, community, and civil society to promote sustainable development through the encouragement of law and regulation formulation, and reinforce awareness on environment and energy conservation.

- **ENHANCING COMMUNITY ENERGY SECURITY**

Promote and support development of the local economy and community development with a focus on shared value creation through assistance on providing community accessibility to sustainable and reliable energy sources.

- **MINIMIZING ALL ENVIRONMENTAL IMPACTS**

Minimize all environmental impacts of the businesses

and integrate the move with the principle of “circular economy” to reduce resource consumption and waste.

- **RESPONSES TO CUSTOMERS’ NEEDS AND PROTECTION OF CUSTOMERS’ PRIVATE DATA**

Manage responses to customers’ needs with the highest possible efficiency, protect individual data privacy including online with state-of-the-art technology and the best possible data security systems.

- **CREATIVE BUSINESS GROWTH WITH ENVIRONMENTALLY FRIENDLY INNOVATIONS**

Consistently develop businesses with creative green innovations and technology compatible with the business strategy of maximizing value.

- **DEVELOPING ORGANIZATIONAL CAPABILITY THROUGHOUT THE VALUE CHAIN**

Increase organizational competitiveness and sustain growth through development of employees, promotion of business partnership and development of competitive advantage for BCPG’s joint ventures and contractors across the value chain.

- **RESPECT FOR DIVERSITY AND SAFEGUARDING OF HUMAN RIGHTS**

Strive to become a reputed organization that embraces diversity and operates with zero discrimination.

<https://www.bcpgroup.com/en/sustainability/policy>



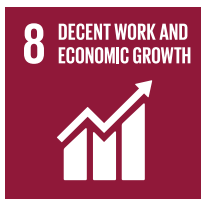
## SUSTAINABLE DEVELOPMENT

BCPG Group realizes business ethics and responsibility to create and fortify sustainable development in line with the UN Sustainable Development Goals (SDGs), five of which directly correspond to strategies and activities pursued by the Group.



**Affordable and Clean Energy for Everyone**

As clean energy is the core business of BCPG, all investment in businesses under the Company's mission are designed for development of affordable and clean energy for everyone in the society and direct promotion of a higher share of clean energy of the overall energy consumption. Moreover, maintenance of high operating efficiency directly supports the intention of SDG 7 on increasing energy consumption efficiency (SDG 7.2) and sharing of expertise and resources of the Group with communities and the society, such as donation and installation of solar panels in remote communities for them to gain access to affordable and clean energy (SDG 7.1).



**Decent Work and Economic Growth**

BCPG's businesses involve the hiring of employees of the Company, joint ventures and contractors, and communities in the vicinity, involving directly the economic growth at both small-scale community level and the larger scale of the national level. The Group is fully committed to being a responsible corporate citizen with full respect for and compliance with the human rights of employees, workers of joint ventures and contractors (SDG 8.5, 8.7 and 8.8), as well as to the maximum efficiency of resource utilization of work processes (SDG 8.5). Meanwhile, the Group recognizes the value of and actively promotes the development of the local economy through employment and professional training as well as development of people in the community (SDG 8.5) and continuously develops technology and innovation to increase the effectiveness of the local and the national economy (SDG 8.2), focusing on economic development with zero negative impact on the environment (SDG 8.4).



**Industry, Innovation**

The identity of the Group is an innovative organization able to effectively deploy technology and creativity for business development. With this identity, BCPG Group tirelessly focuses on and promotes investment on innovations to support the development of infrastructure relying on clean and reliable energy (SDG 9.4 and 9.5).



**Sustainable Cities and Communities**

One of the Group's missions is the deployment of renewable energy and innovations to develop and nourish sustainability with a renewable or circular economy concept. Modern consumers can generate and consume their own power, as well as exchanging among consumers optimizing energy consumption, especially whenever energy surplus becomes available. This changing energy platform is the beginning of the development of a Smart Community, of which high-potential infrastructure of clean energy is the critical part to cope with future settlement of human beings capable of encountering changes to become sustainable (SDG 11.3, 11.5 and 11.6).



**Climate Action**

Generating power from renewable sources to replace energy from fossil fuels is crucial to the reduction of greenhouse gas emissions. The businesses of the Group are therefore significantly involved in the efforts to mitigate impacts of climate change (SDG 13.3). Besides, under the vision to become a leading business organization in renewable energy with sustainable and uninterrupted operation, the Group needs to manage its operations with appropriate risk management of climate change to protect its clean-energy businesses which might be impacted by climate fluctuation from time to time (SDG 13.1 and 13.3).

## KEY OPERATING PERFORMANCE ON SUSTAINABILITY

In order to align with the sustainable business development policy and to promote approaches to achieve the above SDGs, BCPG has carried out initiatives that promoted economic, social, and environmental sustainability.

### ECONOMIC DIMENSION

#### • ESTABLISH A POWER INNOVATION DEVELOPMENT ENTITY

To stay abreast of the ongoing changeable trends at the global level and boost innovative thinking and initiatives, BCPG has proactively digitalized its energy business, founding the Center of Digital Energy, or CODE, which is tasked to steer innovations for energy development, being an advocate to sustainable energy deployment, whether in terms of partner acquisition, namely those in the field of power tech development (start-ups) in both national and international levels. It also sought partnerships with service providers that align with the positioning of CODE and the organization.

In 2020, CODE signed an MoU to cooperate on Internet of Energy through 5G technology with TOT Public Company Limited to optimize the integration of the IoT technology for the benefit of clean power management, along with deployment of other digital technologies available on the 5G network. Apart from that, it also joined forces with True Corporation Public Company Limited to create True 5G Intelligent Energy Tech, an innovative prototype for 5G power technology, reaching a new energy service dimensionally digitalized via smart connection of

True 5G network. CODE will, thereby, incorporate its expertise on clean energy business management with Blockchain, Artificial Intelligence (AI), and Machine Learning, proving the preparedness of True 5G network to achieve end-to-end digital system enhancement, upgrading energy services to resonate with the fourth industrial revolution (Industry 4.0) and stimulating decent energy consumption in business and industry sectors in promotion of the Circular Economy and development for sustainability.



Ensure accessibility to clean energy, and smart and innovative energy management.



Develop innovation and technology for clean energy consumption and management for its optimization in businesses and other industries.



Clean energy management innovation by deploying technology, such as Blockchain, Artificial Intelligence (AI), Machine Learning, and Internet of Thing (IoT).



Promote affordable energy for sustainable cities and communities.



Promote sustainable clean energy consumption, which primarily lessens carbon dioxide in the atmosphere.



► Signed an MoU with TOT Public Company Limited



► Signed an MoU with True Corporation Public Company Limited)

## • SMART DISTRICT COOLING SYSTEM

BCPG prioritizes power technology and innovation development which potentially assist in mitigating impact from environmental changes. Last year, BCPG, in collaboration with Team Consulting Engineering and Management Public Company Limited and Keppel DHCS Pte. Ltd. from Singapore, developed **Smart District Cooling** System for further installation in buildings located at the heart of Bangkok – Suanluang-Sam Yan area, as a service provided under the Chula Smart City project.



The innovation can be employed in replacement of conventional air conditioning system, contributing to power saving and less electricity costs, as well

as lower carbon dioxide emissions, which alleviate environmental problems and ensure pleasant quality of life within communities in its vicinity. The launch of the first phase is expected to be by 2022, and the system will be fully functioned within 2027.



Ensure accessibility to green alternative energy.



Smart District Cooling System contributes to power saving and less electricity costs, promoting sustainable business growth.



Smart District Cooling System is a green system that can be employed in replacement of conventional air conditioning system.



Smart District Cooling System is part of a pilot project that promotes energy and environmental conservation via alternative energy and power management innovation under the Chula Smart City project.



Employing Smart District Cooling System in replacement of conventional air conditioning system helps lessen carbon dioxide emissions and reduce adverse environmental impacts.

## • SMART FARM PROJECT

BCPG attached great importance to affordable clean energy and employment of cutting-age technologies to benefit agriculture and animal husbandry. In 2020, a 11.55-kW solar power generating system together with a display monitor was bestowed on King Vajiralongkorn for installation in milking parlors within the Royal Chitralada Project. The system consisted of 35 solar panels with a production power of 330 kW for power generation within the milking parlors, contributing to less electricity costs and greener environment.

In this regard, BCPG also noticed a prospect and importance in developing a **smart farm and modern livestock model** to elevate agricultural and farming practices by harnessing state-of-the-art technology for the optimization of power management. To name a few, Energy Audit technology for power generation tracking and real-time power usage, IoT technology for power system automation, etc.



Provide affordable clean energy by installing 11.55 - kW solar panels for power generation in milking parlors within the Royal Chitralada Project.



Deploy clean energy and technology to modernize agriculture and livestock production.



Solar cell innovation and innovative energy management for agriculture and livestock production.



Promote sustainable urban development by harnessing electricity generated from clean energy, as well as harnessing technology to ensure the optimization of power management.



Help reduce carbon dioxide levels in the atmosphere by the generation and use of clean energy.

## SOCIAL AND ENVIRONMENTAL DIMENSIONS

BCPG has developed and provided benchmarks for sustainability in communities, societies, and the environment through several activities under the “**Breath of the World**” project, consisting of 3 initiatives as follows:

**Breath of the Souls:** Underpinned social enterprises and actions, whether in terms of quality of life, education, economy, and aided whenever there was a crisis. Prominent activities held in 2020 include:

### QUALITY OF LIFE DEVELOPMENT

- Made a visit to Haiter Community, a village set in the vicinity of Namsan 3A and Namsan 3B power plants, Chiang Kwang District, Lao PDR, to discuss with its leader and teachers. It was found that people in the community earned low incomes, as most of them labored for their living with uncertain daily wages. In this regard, Namsan 3A and Namsan 3B power plants have employed the locals and supplied electricity to the community with no charges.

### EDUCATION AND YOUTHS

- Sponsored BCPG Junior Golf Open 2020 and BCPG Junior Golf Classic 2020 to heighten possibilities for the youth to become professional golfers through the professional competitions.
- Awarded scholarships on Children's Day, sports competition, educated youths on renewable energy, renovated school buildings, playgrounds, etc., for schools located in the vicinity of Company's operation, such as Resources Center for Baan Bang Rad School in Nakhon Si Thammarat, Wat Dok Mai School in Phra Nakhon Si Ayutthaya, Wat Pho Taeng Tai School in Phra Nakhon Si Ayutthaya, etc.
- Educate youths on clean energy and Low Carbon Society (LCS) through the BCPG Visitor Center in Bang Pa-In District, Phra Nakhon Si Ayutthaya.



### REHABILITATION AFTER DISASTERS

- Distributed relief rice and drinking water to mitigate impacts caused by floods to communities in Tha Phaya Sub-district and Baan Perng Sub-district, Pak Phanang District, Nakhon Si Thammarat, which are located in a close proximity to the operation of Lom Ligor Co., Ltd., a subsidiary of BCPG.

### SUPPORTS AND AIDS IN THE COVID-19 CRISIS

In 2020, Thailand and every country throughout the globe were tremendously affected by the outbreak of coronavirus, or COVID-19, leading to adverse impacts against the economy and the society in a wide extent and striking Thai people's subsistence in all sectors. BCPG, as a company that consistently focuses on giving back and serving interest of people in the society and the environment, has become part of a wide range of activities to ensure its country fellows' quality of life and to readily provide support in all respects to mitigate the impacts as outlined below:

- Sponsored the KMITL GO FIGHT COVID-19 Innovation Center of King Mongkut's Institute of Technology Ladkrabang, or KMITL, in conducting research and developing essential medical devices for treatment and curbing the infection rate of COVID-19, which were further distributed to hospitals throughout the country.
- Sponsored Prince of Songkla University in developing test kits for COVID-19 screening.
- Supplied drinking water to 7 hospitals in support of medical personnel and those devoting to rehabilitation

of patients amidst the COVID-19 crisis, namely Bang Pa-In Hospital, Sub-district Health Promoting Hospital - Wat Phraya Karam sub-district, Bang Pa Han Hospital, Viset Chai Charn Hospital, Pho Thong Hospital, Office for Medical Service of The Permanent Secretary for Defence, and Bamrasnaradura Infectious Disease Institute.

- Organized “BCPG, A Forever Giver” consisting of the following activities:
  - o Produced a music video (MV) “Generosity” composed by Asanee Chotikul to express support for all Thais that are and have been doing good turns to their country fellows. BCPG thereby produced the music video as a gift for all as they are key to the society and deserved gratitude. Despite of tiredness and exertion, Thai people are always primed to reach out their hands to one another.
  - o Organized “COVID-19 Relief Bags for Motortaxis” to express gratitude to all risk-taking motorcycle taxi drivers in the business district of Bangkok in which BCPG is located, in a bid to reduce the chance of disease exposure and ensure that they would stay healthy in the present crisis where everyone has been affected by COVID-19.
  - o Organized “Care Kit for Your Health” by distributing care kits vital to health to strengthen awareness

on hygiene of everyone to food parlors in the vicinity of BCPG’s office.

- o Organized “Sharing Resources” by allowing the communities located in the vicinity of BCPG’s power plants to leverage unoccupied space within the plants for farming or agriculture, for their own and family’s subsistence. BCPG first launched the activity at Lom Ligor project, a wind farm in Nakhon Si Thammarat, by allocating lands to the locals for rice cultivation for household consumption. In this regard, the initiative will be further rolled out to other power plants as deemed appropriate.
- o Provided face masks to the Ministry of Health for further distribution to communities in the areas that are prone to risk in Samut Sakhon in order to aid the locals and prevent the spread of virus.

## OTHERS

- Provided a financial support to the KMITL Hospital Foundation under the project of “No Gift is to Give” as part of financial sponsorship for the construction of KMITL Hospital.
- Provided food supports to 300 underprivileged children at Bot Woradit Temple in Ang Thong and 60 underprivileged children in Lam Luk Ka Community, Bangkok.



1. “COVID-19 Relief Bags for Motortaxis”
2. Sponsored the KMITL Go Fight COVID-19 Innovation Center of King Mongkut’s Institute of Technology Ladkrabang in conducting research and developing essential medical devices for COVID-19 treatment and control.
3. Produced a music video (MV) “Generosity” composed by Asanee Chotikul to express gratitude to all Thais for their contribution during the COVID-19 crisis.
4. Supplied drinking water to hospitals to express appreciation to all medical personnel for their devotion during the COVID-19 crisis.
5. Provided food supports to more than 300 underprivileged children at Bot Woradit Temple, Ang Thong.

**Breath of the Waters:** Promoted activities that highlighted water resources conservation with key activities held in 2020 as follows:

**Fostered knowledge regarding water resources and conservation approaches:** Published a series of articles titled “Be More Respectful to the World” on BCPG Facebook Page in order to educate the general public about water resources and persisting problems encountered by water resources of the country, along with introducing sustainable approaches to achievement of water resources conservation success. Throughout 2020, 20 articles were published with an engagement statistic (clicking rate, numbers of likes, comments, and shares) of 1,397.

**Rebroadcasted a documentary Breath of the Ocean:** To enhance knowledge on water resources, 9 episodes of the documentary “Breath of the Ocean” were rebroadcasted on BCPG Facebook Page to heighten awareness on the benefits of coral reefs to the marine ecosystem.

**Breath of the Wilds:** Promoted activities that highlighted conservation of forest resources with key activities as follows:

**“No Gift is to Give”:** We gave no gifts to celebrate the new year season, yet instead provided financial support to the Forest and Marine Ranger Welfare Funds in order to aid staff actively working for forest and marine protection, and those promoting, developing, protecting, monitoring, and restoring marine and terrestrial ecosystems and natural resources.



**Zero Waste Diary:** This activity aimed to foster environmental consciousness in all employees to reduce their daily waste volume, especially in terms of single-use plastics. The Occupational Safety, Health and Environment Committee (SHEC) of BCPG launched a LINE Official Account named Zero Waste Diary, encouraging the employees to share pictures of their waste reduction efforts. The green routine can be divided into 3 categories, including:

- Reduce/Refuse : Say no to single-use plastics, such as plastic bags, plastic cups.
- Reuse: Go for renewable products, such as silicon straws, fabric bags, tumblers.
- Recycle: Sort out recyclable waste, such as PET bottles, milk cartons.



In this regard, employees who shared images that proved their green routine would get extra points based on preset guidelines, which were redeemable at the end of the activity. Moreover, the points were considered collectively as part of CSR activities, which were employees' Key Performance Index (KPI) of 2020. Throughout the course of this activity, 65% of employees participated in this activity with 964 images uploaded.

## KEY OPERATING PERFORMANCE (AS OF DECEMBER 31, 2020)

### GOVERNANCE:

Emphasizing  
good corporate  
governance and risk  
management

### CORPORATE GOVERNANCE

Cases of corruption

**0**  
case



Total recordable injury rate

**0**  
case



(Based on  
ISO 45001 :2018)

### GROWTH:

Creating business growth with innovation,  
employee development, and collaborations

#### INNOVATION AND TECHNOLOGY

Alliances engaged for innovation projects



- TOT Public Company Limited and True Corporation Public Company Limited [Internet of Energy]
- Team Consulting Engineering and Management Public Company Limited, and Keppel DHCS [Smart District Cooling System]

#### PUBLIC POLICY AND REGULATORY ADVOCACY

Numbers of activities engaged to  
pursue policy for clean energy

- ERC Sandbox Project

#### EMPLOYEE READINESS

Average hours of training to enhance  
knowledge, skills, and proficiency, as well as  
operating efficiency of employees.

**60**  
hours



### GREEN:

Building the green culture for environmental  
protection

#### CLIMATE CHANGE

Company's greenhouse gas emission rate

**1,693**  
tons

Thailand 1,608 tons Japan 85 tons

(Based on ISO 14001:2015)

Clean energy generated, equivalent  
to greenhouse gas emissions

**1,409,588**  
tons

|                                                                                     |                 |              |
|-------------------------------------------------------------------------------------|-----------------|--------------|
|  | Thailand        | 169,574 tons |
|  | Japan           | 6,670 tons   |
|  | Lao PDR         | 255,214 tons |
|  | The Philippines | 16,478 tons  |
|  | Indonesia       | 961,650 tons |

## GOOD:

Being a good citizen by contribution of clean energy to society

### ACCESSIBLE, RELIABLE, AND CLEAN ENERGY

Number of people with access to energy

Internet of Energy **30** persons  
Smart Farm **15** persons

Total units of clean energy generated

**2,065**  
gigawatt hours



#### SOLAR POWER

**308** gigawatt hours

Thailand 290 gigawatt hours

Japan 18 gigawatt hours



#### HYDROPOWER

**453** gigawatt hours



#### WIND POWER

**45** gigawatt hours

Thailand 12 gigawatt hours

The Philippines 33 gigawatt hours



#### GEOTHERMAL POWER

**1,259** gigawatt hours

### CONTRIBUTION TO LOCAL ECONOMY

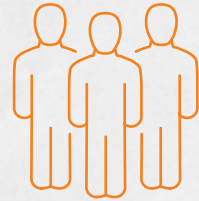
Employment of labor in the vicinity of operation  
(operators and technicians)

**216** persons



Rate of employees who participated in programs for community

**100** %



### DIVERSITY AND INCLUSION

Numbers of females in senior management

**21** persons

(Diversity of governance bodies and employees)



Number of personnel

- Employees **108** persons

- Executives **8** persons

### INFORMATION AND CYBER-SECURITY

Cases of information leakage



**0** case

