



**SERMSANG**  
POWER CORPORATION

## Sustainability Report 2021

Serm Sang Power Corporation Public Company Limited



# Table of contents

01



---

About this Report

02



---

Message from Chief Executive Officer

04



---

About SSP

14



---

Business Value Chain

16



---

2021 Sustainability Highlights

18



---

SSP and Sustainability

20



---

SSP and Stakeholders

24



---

The Essential Matter  
Towards the Sustainability

# 30



The Sustainability Regarding  
Economic Dimension

- ⊗ Economic Performance
- ⊗ Indirect Economic impacts
- ⊗ Anti Corruption

# 42



The Sustainability in the  
Environmental Dimension

- ⊗ Energy Management
- ⊗ Greenhouse Gas Management
- ⊗ Water Management
- ⊗ Waste Management
- ⊗ Biodiversity and ecosystem

# 54



The Sustainability in  
Social Dimensions

- ⊗ New employee hires and employee turnover
- ⊗ Training and Education
- ⊗ Occupational Health and Safety
- ⊗ Non-discrimination
- ⊗ Human Rights
- ⊗ Local communities
- ⊗ Customer privacy

# 68

GRI Content Index



# **SERMSANG**

POWER CORPORATION



# About this Report

---

## The Approach for the Report Preparation

Sermsang Power Corporation PCL. initially organizes the Sustainability Report of 2021 in accordance with Global Reporting Initiative Standards for the first time. The Company thereby organizes the report in order to portray its determination regarding the disclosure of the crucial information towards the management, operation process, and the performance of company's sustainable development to the stakeholders. The Report covers the economic, social, and environmental matters in respect of the reporting period from January 1, 2021 to December 31, 2021. This report has been prepared in accordance with the GRI Standards: Core option, in the same regard outlines the progress and performance that support the SDGs (Sustainable Development Goals).



## Scope of the Reporting

The information in this report reveals the matter of the sustainability performance in 2021, which covers the operations of economy, social, and environment. The performance is thereby considered after the business relevance issues and the availability of the information covering the group of the companies that Sermsang Power Corporation PCL. holds the shares under the undertakings in the manufacture and sale of electricity from the renewable sources and other businesses involving the manufacture and sale of electricity from the renewable sources, both in domestic and international levels. In 2021, there are no significant change in relation to the company or the supply chains.

## The Report Assurance

For the Materiality Disclosure Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the English version of the report.



For more information or suggestion, please contact :

Sermsang Power Corporation PLC.

Tel: +66 2 628 0991 - 2

E-mail: [info@sermsang.co.th](mailto:info@sermsang.co.th)

Investor Relation Manager, Mr. Nonthacha Jomkangern

Executive Secretary, Ms. Supitcha Chalotorn



# Message from Chief Executive Officer

In 2021, the epidemic situation of, an infectious disease, Coronavirus (COVID-19) has been a challenging factor towards the business operation as a whole. Although the business carried by SSP group has not directly been affected by the pandemic, it has encountered an indirect impact upon the commute restriction. The Company group thereby adjusts its working method together with closely monitors the changes of circumstances to prepare for the business expansion plan which correlates with its objectives. Accordingly, SSP group aims to develop the business with an awareness towards sustainable development in economic, social, and environmental dimensions in order to be a part of supporting the Sustainable Development Goals (SDGs).

With the corporate culture defined as FAIR (Flexible, Ambitious, Innovation, and Responsibility) which resembles a compass that guides operational framework, and leads everyone to achieve goal and accomplishment. In 2021, SSP group has seen continuous growth in performance from the past year as well as the highest profit-making since its establishment. Accordingly, the Company group has total revenue of THB 2,698.2 million, an approximate increase of 39.4% from 2020; earnings before interest and depreciation (EBITDA) at THB 2,023.0 million, an increase of 32.6%; and core operating profits at THB 846.7 million, an increase of 21.6%. These increasing profits are the result of having new power plants project which can be continuously operated for commercial purpose. As of December 31, 2021 the Company group has total assets of THB 24,063.3 million, all of which are mainly consisted of lands, buildings, and equipment used in power plants.



The year of 2021 was regarded as another year of growth and sustainable development. We were capable to operate two power plants which are Leo power plant in Japan; and Wind power plant in Vietnam. In addition, the Company has also invested in biomass power plants in Thailand, culminating in the total installed capacity of project group in a sum of 196 megawatts at the end of 2021.

In respect of the business growth in the future, the executives intend and determine to expand all types of alternative energy businesses to five countries which are in the ongoing operation, as well as other countries with potential for growth in the alternative energy businesses. Correspondingly, the Company aims to provide an accessible clean energy, allow the community to have well-being, improve and optimize energy consumption, support the use of renewable energy in order to reduce greenhouse gas emission, and cope with global climate change.

The accomplishment in the past year was credited to the support from all parties. As a representative of the Board of Directors, I would like to express my appreciation to the Board of Directors of the Company for the support and corporate governance, together with the SSP and its subsidiaries employees, shareholders and investors, customers, partners, supervisory units, and communities around the power plants. The executives will continue to strive for business development coupled with good corporate governance, taking care of stakeholders, responsibility for society and environment, in order to be a leader in renewable energy, a new and sustainable alternative for all.



Mr.Varut Tummavaranukub  
Chief Executive Officer



# About SSP

## Vision

To be a leading Asian power producer in providing sustainable energy solution with a full commitment to support clean environment and in the best interest of the society.

## Mission

We enable people and businesses to help develop the sustainable future by harnessing our expertise in selecting optimized technologies and building dynamic resources that will efficiently and effectively deliver the sustainable energy solution worldwide.

## Values

The present is vastly different from how we imagined decades ago. It was not too long ago that conventional energy was the only viable energy source. But as technological breakthrough occurs and is happening at a faster pace, the world will continue to evolve around us. Conventional energy will still play an important role in driving global economy but renewable energy is steadily becoming the force to reckon with.

To continue to not only adapt but also thrive in the energy business, we must anticipate trends and forces that will shape our business decades and beyond. Today is the past and tomorrow is today.



## Targets and strategies

Our group has targets to be leading power producer utilizing internal technologies in developing projects, in order to support clean and sustainable environment for the best benefits of society. Strategies to achieve our targets can be outlined below:



Focus and determine to invest and develop various renewable power projects, i.e., solar power, wind power, biomass/biogas power, within both domestically and in Asia, with targeted capacity of 200 MW within 2020



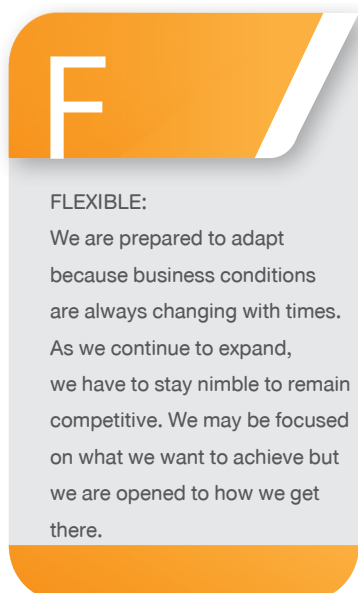
Promote and support surrounding communities to participate in our development of projects, by enhancing understandings of renewable power projects, from development to operation phase, supporting job creation in surrounding communities, as well as coordinate with surrounding communities in protecting environment.



Focus on human resource development to enhance know-how and expertise.

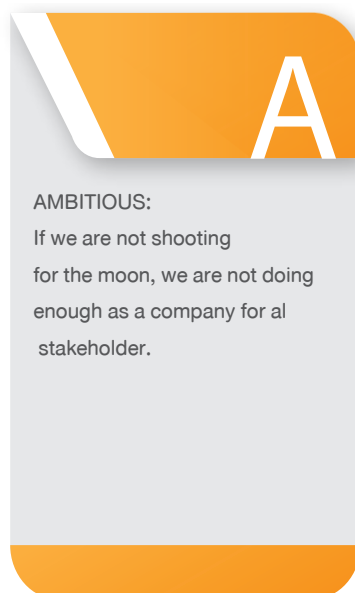
## Culture

Our beliefs serve as a compass for our actions and are the foundation of who we are and what we do. No matter the circumstances, we will not waver from the commitment we share to our four core values, FAIR:



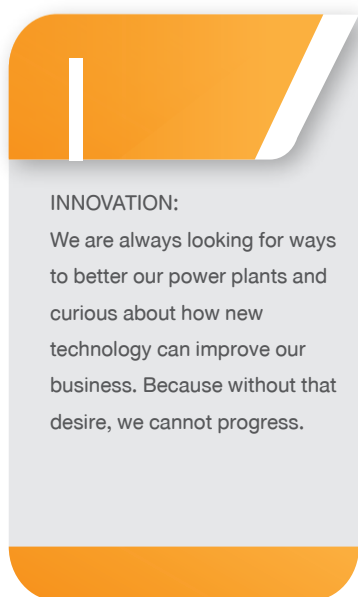
**F**

**FLEXIBLE:**  
We are prepared to adapt because business conditions are always changing with times. As we continue to expand, we have to stay nimble to remain competitive. We may be focused on what we want to achieve but we are opened to how we get there.



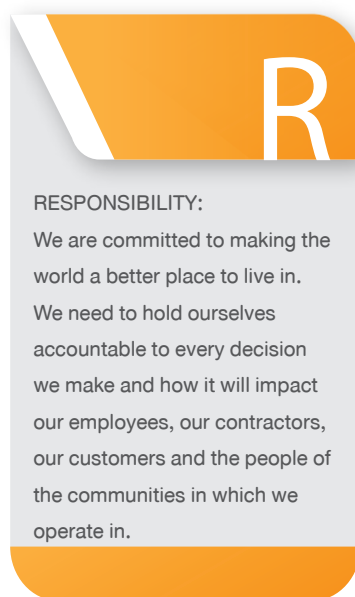
**A**

**AMBITIOUS:**  
If we are not shooting for the moon, we are not doing enough as a company for all stakeholder.



**I**

**INNOVATION:**  
We are always looking for ways to better our power plants and curious about how new technology can improve our business. Because without that desire, we cannot progress.



**R**

**RESPONSIBILITY:**  
We are committed to making the world a better place to live in. We need to hold ourselves accountable to every decision we make and how it will impact our employees, our contractors, our customers and the people of the communities in which we operate in.

## Nature of the Business Operation

Sernsang Power Corporation Public Company Limited (“Company” or “SSP”) operates the business by holding shares in other companies (Holding Company) whose business is production and distribution of electricity generated from the renewable energy, serving those electricity providers both in Thailand and overseas as well as manufactures that consume loads of electricity.

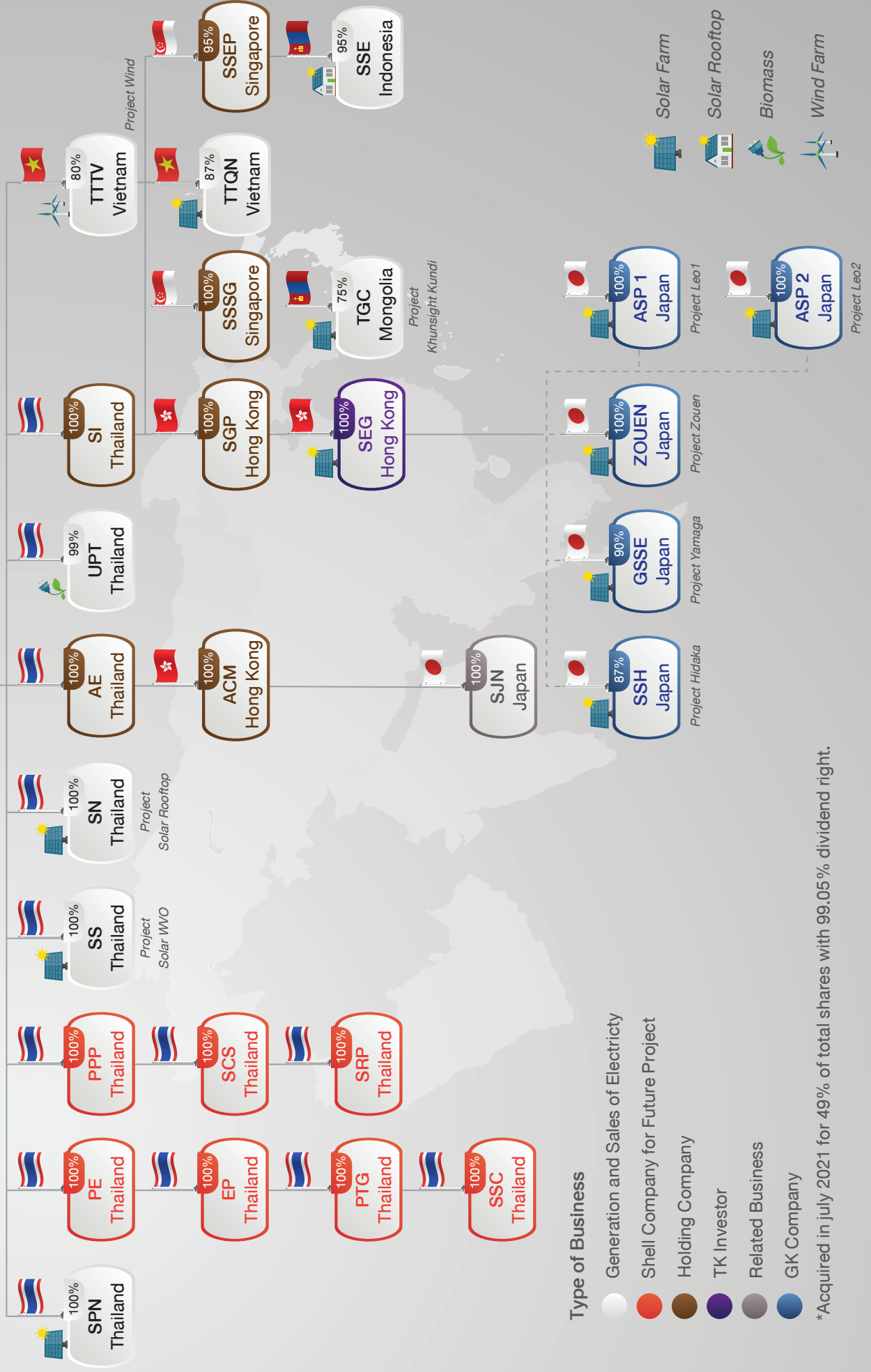
## Backgrounds and Significant Changes

In 2012, The Kraipisitkuls, the majority shareholders of the Company, have foreseen business opportunities in the renewable energy industry as from the government's policy to promote the production of renewable energy to those Very Small Power Producers (VSPP) and Small Power Producers. The family thereof submitted the request and offered the sale of electricity to the Electricity Generating Authority of Thailand (EGAT) on behalf of Sermsang Co., Ltd. ("SPN"), which is the subsidiary of SSP. On June 7, 2013, SPN was considered to enter into the power purchase agreement with EGAT in the Solar Strengthening Project, and had the commercial operation date (COD) on February 2, 2015. On June 16, 2015, the shareholder group subsequently had the Company registered under the name of Sermsang Power Corporation PCL. (SSP) in order to restructure the Company group for its promptness upon the listing on the Market for Alternative Investment (MAI). The shareholder group thereby intended to conduct SSP's business by holding shares of subsidiaries and that of other companies to be registered (Holding Company), which operate their businesses for the production and distribution of electricity from the renewable energy and other relevant businesses. Later, on March 27, 2019, Sermsang Power Corporation PCL. moved from being listed on the Market for Alternative Investment (MAI) to the Stock Exchange of Thailand (SET) for the first day.

Currently, SSP has seven operational solar power plants generated for its commercial purposes and 12 solar power plants installed on the rooftop, located in Thailand, Japan, Vietnam, Mongolia, and Indonesia, both of which have an installed capacity of 194 megawatts. Furthermore, SSP has two solar power plants located in Japan, and one constructing and developing wind power plant located in Vietnam, both of which have an installed capacity of 102 megawatts; will be progressively operated for the commercial purpose within 2021 to 2023.

## The Structure of Company Group

From October 2015 to March 2016, the Company group together with majority shareholder group undertook the restructuring of the Company group in order to allow SSP to hold all shares of the subsidiaries. Currently, on December 31, 2021, SSP holds shares of 28 subsidiaries in total, including 13 domestic subsidiaries and 15 foreign subsidiaries. Likewise, the Company group and its shareholders include 5 operating companies (GK Operator) under the GK-TK investment structure in which Surge Energy Corporation Limited (SEG), as the TK investor, enters into TK investment agreement (TK Agreement).



\*Acquired in July 2021 for 49% of total shares with 99.05% dividend right.

## Subsidiaries

### Thailand

1. Sernsang Power Limited (“SPN”)
2. Access Energy Limited (“AE”)
3. Essential Power Limited (“EP”)
4. Plus Energy Limited (“PE”)
5. Prestige Group Limited (“PTG”)
6. Triple P Renewable Limited (“PPP”)
7. Siam Clean Solution Limited (“SCS”)
8. Siam Renewable Power Limited (“SRP”)
9. Sernsang Solar Limited (“SS”)
10. Sernsang Corporation Limited (“SSC”)
11. Sernsang International Limited (“SI”)
12. Sernsang Infinite Limited (“SN”)
13. Uni Power Tech Limited (“UPT”)






### Foreign Countries

1. S. Global Power Limited (SGP)
2. Surge Energy Corporation Limited (SEG)
3. Access C Management Limited (ACM)
4. Seijo Corporation (SJC)
5. Sernsang Sustainable Singapore Private Limited (SSSG)
6. Tenunn Gerel Construction LLC (TGC)
7. Truong Thanh Quang Ngai Power and High Technology Joint Stock Company (TTQN)
8. SEA Sun Energy Partners Pte. Ltd. (SSEP)
9. PT Sea Sun Energi (SSE)
10. Truong Thanh Tra Vinh Wind Power Joint Stock Company (TTTV)
- GK Operator (under the GK - TK investment structure) that SEG (as TK investor) entered into TK Agreement
11. SS Hidaka No Mori G.K. (SSH)
12. GSSE G.K. (GSSE)
13. Zouen Energy G.K. (ZOUEN)
14. Ashita Power 1 G.K. (ASP1)
15. Ashita Power 2 G.K. (ASP2)













**Business Overview:** The Company invested and developed in power plant projects divided by their location and status as follows:


Commercial Operation Date	Project	Project Company	Thailand	Foreign Countries
Solar Farm Business				
2015	1. SPN Project, Lopburi province (Installed capacity 52.0 MW)	SPN		
2018	1. WVO Solar Project, Ratchaburi province (Installed capacity 5.0 MW)	SS		
	2. Hidaka Project Hokkaido prefecture, Japan (Installed capacity 21.0 MW)	SSH		
	3. Zouen Project Kumamoto prefecture, Japan (Installed capacity 8.0 MW)	ZOUEN		
2019	1. Binh Nguyen Solar Project Quan Ngai, Vietnam (Installed capacity 49.6 MW)	TTQN		
	2. Khunshight Kundi Project Ulaanbaatar, Mongolia (Installed capacity 16.4 MW)	TGC		
2020	1. Yamaga Project Kumamoto prefecture, Japan (Installed capacity 34.5 MW)	GSSE		
2021	1. LEO 1 Project Shizuoka prefecture, Japan (Installed capacity 26.0 MW)	ASP 1		
Scheduled COD in 2023	1. LEO 2 Project Shizuoka prefecture, Japan (Installed capacity 22.0 MW)	ASP 2		

#### Solar Rooftop Business


2018	1. SNNP 1 Project, Samut Sakorn province (Installed capacity 0.4 MW)	SN		
	2. SNNP 2 Project, Ratchaburi province (Installed capacity 1.0 MW)	SN		
	3. DoHome Project 5 branches (Bang Bua Thong, Rama 2, Nakhon Ratchasima, Khon Kaen, and Chiang Mai) (Total installed capacity 3.0 MW)	SN		

Commercial Operation				
Date	Project	Project Company	Thailand	Foreign Countries
2019	1. SNNP 3 Project, Samut Sakorn province (Installed capacity 0.4 MW)	SN		
2020	1. SNNP 4 Project, Samut Sakorn province (Installed capacity 0.3 MW)	SN		
	2. PRC Project, Nonthaburi province (Installed capacity 0.96 MW)	SN		
	3. TAPACO Project, Chonburi province and Prachinburi province (Installed capacity 0.89 MW)	SN		
2018 - 2021	4. Solar Rooftop Indonesia, Indonesia (Total Installed capacity 19.2 MW)	SSEP		

#### Biomass Business

2019	1. UPT Project, Nakhon Ratchasima province (Installed capacity 9.9 MW)	UPT		
------	--	-----	--	--

#### Wind Farm Business

2021	1. Tra Vinh Wind Power Tra Vinh, Vietnam (Installed capacity 48.0 MW)	TTTV		
------	---	------	--	---



## Major Shareholder Structure as of January 12, 2022

Rank	Major Shareholders	Number of Shares	% Shares
1.	Prime Energy Company Limited (“PME”)	322,076,500	30.1
2.	Unity I. Capital Limited	106,937,306	10.0
3.	Mr. Viwat Kraipisitkul	62,708,272	5.9
4.	Mr. Pongsak Thammathataree	49,800,000	4.6
5.	Mr. Piyawat Kraipisitkul	44,210,950	4.1
6.	Ms. Thantaporn Kraipisitkul	38,955,788	3.6
7.	SCB Securities Co., Ltd. SPECIAL S_INVEST SET01	36,432,453	3.4
8.	Mr. Sura Kanittaweekul	31,112,000	2.9
9.	Mr. Atthapol Phianphensiriwong	20,946,700	2.0
10.	Mr. Chawin Amares	18,062,090	1.7
	Total	731,242,059	68.2

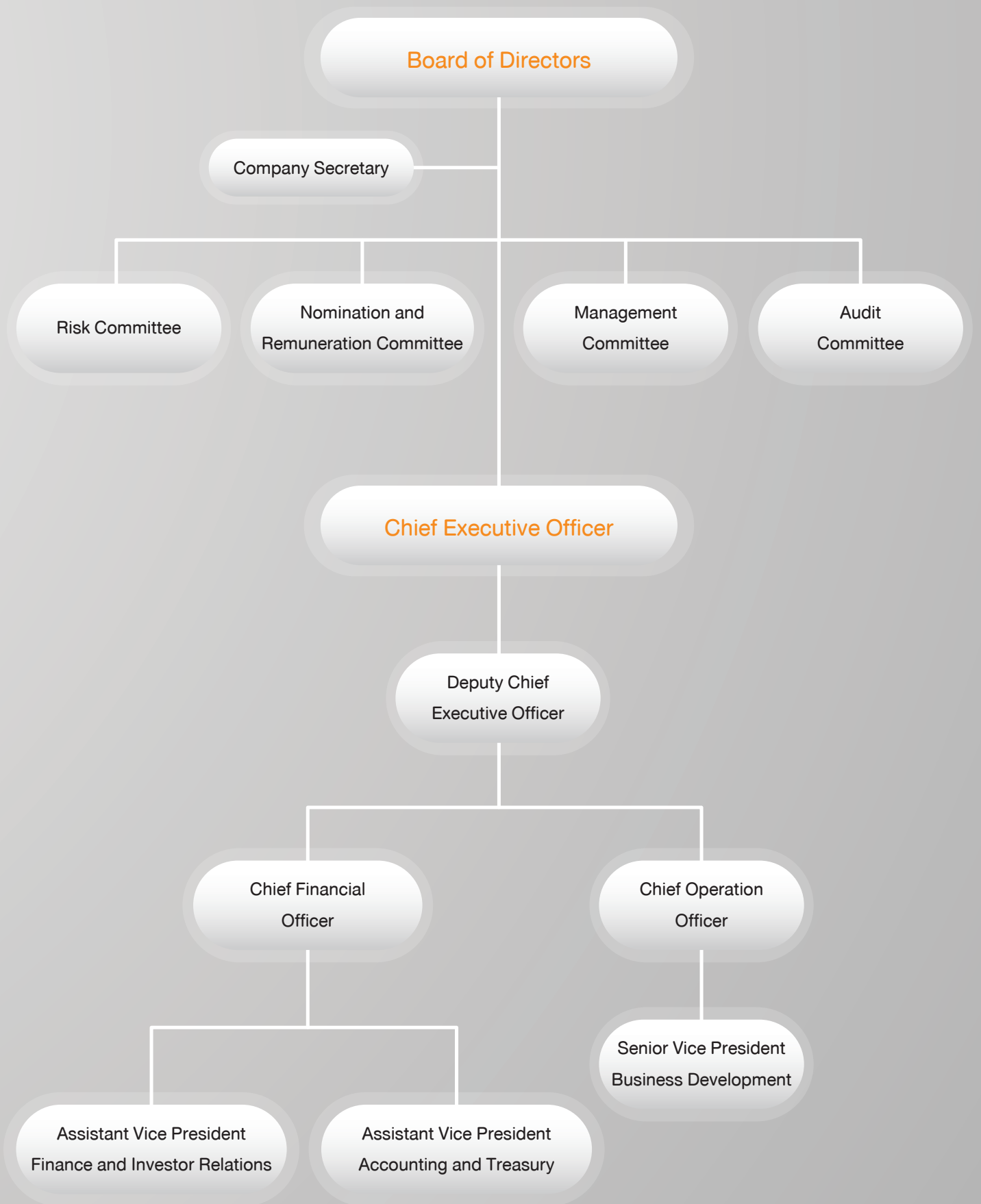
## The Organizational Structure

The organizational management of the Company consists of Board of Directors with ten members of which Mr. Kamthon Wangudom is a chairman and independent director (verification pending), and four sets of sub-committees possessing clear scope of powers, duties, and responsibilities, which consists of (1) three members of Audit Committee, (2) three members of Risk Committee, (3) three members of Nomination and Remuneration Committee, and (4) four members of Management Committee.

## Membership In an International Level



The organization is a member of the Thai Private Sector Collective Action Coalition against Corruption (CAC).





14

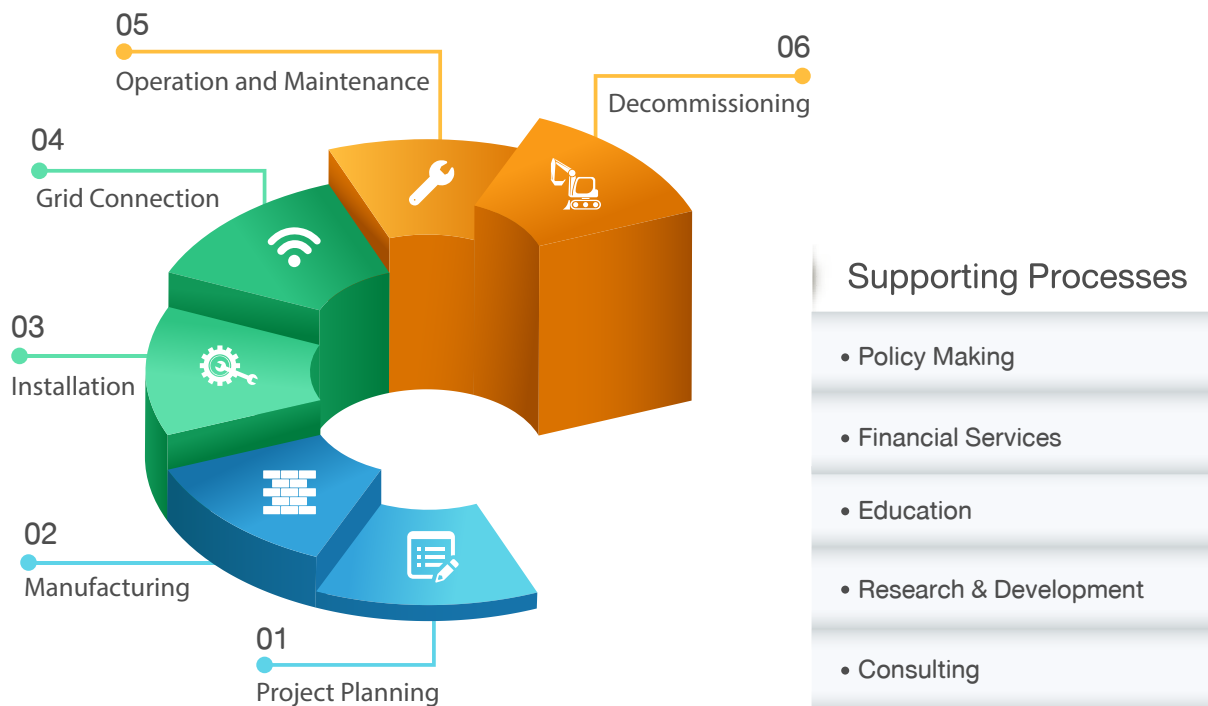
---

Business  
Value Chain



# Business Value Chain

Sermsang Power Corporation PCL. operates its business by holding shares of other companies (Holding Company), whose business is the production and distribution of the electricity generated from the renewable energy, serving those electricity providers both in Thailand and overseas as well as manufactures that consume loads of electricity. According to the Chain Value, it reflects the operation and stakeholders who involve in such operation of the organization by which the Company group recognizes the group of stakeholders affected by the business operation as well as the suitability management towards the activities throughout the business Value Chain.



## Location of Headquarters

Sermsang Power Corporation PLC.

325/14 Lanlaung Rd, Mahanak Square, Dusit, Bangkok 10300 Thailand

Tel: +66 2628 0991 - 2 / Fax: +66 2 628 0993

E-mail: [info@sermsang.co.th](mailto:info@sermsang.co.th)

# 2021 Sustainability Highlights

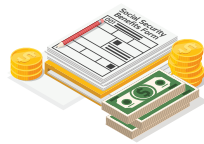
## Economic



Total Revenue

**2,698.20**

Million THB



Dividend payment

**0.111**

THB per share



Wages and employee benefits

**92.78**



Tax payment to government and local authorities

**136.70**

Million THB



Executives and employees that received training and communication about anti-corruption policies = 35 Person

**EBITDA = 2,023.00**  
Million THB



Confirmed incidents of corruption

= **0**

## Environmental Dimension



Total GHG emissions

**8,727.62** ton CO<sub>2</sub>e



Total non-hazardous waste

**4,202.13** ton



Net sales of electricity

**171,871.61** MWh



Total hazardous waste

**30.64** ton



Total water withdrawal

**265,841** m<sup>3</sup>

(Surface water ground water third-party water)



## Social



Measurement for employee  
to Work from Home

Number of employees

Male  
**19** person

Female  
**21** person



Injury Rate (IR)



Employee

**0**



Contractor

**0**



High-Consequence  
Work-Related Injuries



Employee

**0**



Contractor

**0**

Average training hours of employees



**11** hour/person/year

Investment in Training and Education



**13,685** Baht



100  
Percent



Percentage of employees receiving regular  
performance and career development reviews



Human Rights complaints and  
disputes in the workplace

**0** case



Number of information security  
breaches or data leaked

**0** case



**ZERO**

complaints from the  
community

# SSP and Sustainability

Sermsang Power Corporation PCL. and the group of companies that Sermsang Power Corporation PCL. holds the shares have a determination to engage in the sustainable future development by operate the business with the responsibility towards economic, environmental, and social aspects as well as the good corporate governance. The Company group intends to be a part in responding to the world's Sustainable Development Goals (SDGs) by implementing the criteria of the organization's sustainability assessment which covers economic, environmental, and social dimensions, as well as paying attention towards the satisfaction of needs and expectations of the stakeholders. The Company, thereby, realizes that there will be an opportunity for the improvement of work processes together with the business operation which covers every dimension of sustainability concerns and corresponds with the goal and international sustainability operating approach.

The Company group operates the work towards sustainability at the policy level in which the Board of Directors considers carrying out approaches, policies, strategies, and business operation frameworks in respect of sustainability, which cover the aspects of economy, social, environment, and governance. The foregoing operation approach is implemented in order to allow the Company to set up a standardized organizational regulation with decent approaches in compliance with its objective to be the organization which aims to build trust and sustainability to every group of stakeholders as well as both internal and external relevant agency units up to international standard. Subsequently, in the management level, there is a group of committees in charge of the corporate sustainability management, operating the work in accordance with the policy and goal set up from the policy level as well as assessing and reporting the operation progress.

Nevertheless, for the Company group to accomplish their goal in sustainably operate the business, in 2021, they had an arrangement and analysis of key sustainability concerns in relation to business operation through the selection process of key concerns from the needs and expectations of each group of stakeholders. Together with the key concerns that affect the Company group according to their data of business operation related to sustainability through internal data analysis e.g. sustainability concerns from the operating model and direction of the Company group, and through external data analysis e.g. sustainability concerns of companies in the renewable energy industry, sustainability trends in Thailand and abroad. As well as sustainability concerns from the reporting guidelines of GRI Standards and Sustainable Development Goals of the United Nations (SDGs). The Company group implemented the foregoing sustainability concerns to formulate strategies, policies, and procedures in responding to the key sustainability concerns of the Company group.

## Creating Value from Operation Responding with SDGs

SDGs	Creating Value from the Response to SDGs
	 <h3>Economic Dimension</h3> <ul style="list-style-type: none"> <li>- Planning to cope with climate change to control the rise of global average temperature</li> <li>- Promoting a good image, transparency in business operation, reduction of corruption in any positions and bribery in all forms.</li> </ul>
	 <h3>Environmental Dimension</h3> <ul style="list-style-type: none"> <li>- Providing health care and safety to stakeholders and reducing environmental impact</li> <li>- Optimizing the management of water resources together, wastewater management, and realization of the impact on stakeholders</li> <li>- Improving and enhancing energy efficiency and promoting the use of renewable energy to reduce greenhouse gas emission</li> <li>- Producing and managing waste, reducing amount of waste, and adding value to the waste</li> <li>- Developing innovation and technology through the continuous improvement of efficiency by managing energy and greenhouse gas emission</li> <li>- Planning of operation to cope with change and promoting a low-carbon society</li> <li>- Managing sustainable ecosystem through the reduction of natural habitat loss and preservation of biodiversity</li> </ul>
	 <h3>Social Dimension</h3> <ul style="list-style-type: none"> <li>- Developing capacity in health risks management, aiming to reduce number of accidents and operational casualties</li> <li>- Promoting continuous, inclusive, and sustainable economic growth by creating equal opportunities to access careers to society and every employee in all learning and skill development levels as well as proper, safe, and stable work environments</li> <li>- Supporting small entrepreneurs and employment from local communities</li> <li>- Improving the well-being and building good relationships of communities and societies</li> <li>- Supporting job creation, environment, and safety to the communities</li> </ul>





20

---

SSP  
and  
Stakeholders

# SSP and Stakeholders

Sernsang Power Corporation PCL. recognizes the importance of building cooperation with stakeholders for the effective performance as to which all parties are provided with the maximum benefit. The Company thereby respects the rights of the stakeholders, treats them fairly and equally, and operates the business with transparency in compliance with the moral ethics respecting the vision of the Company.

The Company adopts an international standard, AA1000 Stakeholder Engagement Standard (AA1000SES), as a standard used to identify the stakeholders, by having Value Chain Relationship analysis together with stakeholders' demand and expectation analysis as well as the assessment and prioritization using criteria from the impact and influence from the stakeholders on the operations of the Company. The Company thereby organizes the workshop together with every internal unit in order to obtain a group of stakeholders and their demand as well as the process to meet the need and the frequency in building relationship with them. Consecutively, the analysis will be presented before The Corporate Sustainability Management Group for the further assessment and review the result thereof will be presented before the Board of Directors for the approval afterwards.

The standard, AA1000SES, prioritizes the stakeholders' participation in sharing their opinions which allow the Company to meet their needs and be able to bring any information towards sustainability concerns that the stakeholders are affected into consideration for the Company's operational approach in respect of the priorities of sustainability concerns.

The Company classifies the stakeholders into 7 major groups including customers, employees, shareholders and investors, partners, supervisory units, communities around the power plants, and society, to which the process and frequency of bonding as well as the operation to meet their needs and expectations are different.



Stakeholders Disclosure	Needs and Expectations	Engagement Approaches
<p>1. Customers</p> 	<ul style="list-style-type: none"> <li>- An efficient execution which is completed as specified in accordance with the contract</li> <li>- The comprehensive and clear contract</li> <li>- An efficient sales, acquisition, and production in accordance with terms stipulated in the contract</li> <li>- The work operation of SSP which does not interfere the work or cause damage to the running business</li> <li>- The individual security and property</li> <li>- Result in a power saving in compliance with the contract</li> <li>- The stability of the tools, wires, and production</li> <li>- The system having few breakdowns</li> <li>- The precise data analysis as to which being predicted, secured, and operated in the same direction</li> </ul>	<ul style="list-style-type: none"> <li>- The satisfaction surveys</li> <li>- Arrange the meeting and conduct research</li> <li>- Channels for contact, communication, complaint, and suggestion</li> </ul>
<p>2. Employees</p> 	<ul style="list-style-type: none"> <li>- The advancement and sustainability in work</li> <li>- Welfare and high remuneration that is appropriate and satisfactory</li> <li>- The training suitable for the profession and serving interests</li> <li>- The project operation which can be cited and beneficial to the organization's image</li> <li>- The safety in the operation</li> <li>- The information, explanation, and report document that is precise, completed, prompt, and adequate for the decision making as well as being satisfactory</li> <li>- The operation</li> <li>- The efficient implementation of goals and plans</li> </ul>	<ul style="list-style-type: none"> <li>- The satisfaction surveys</li> <li>- Channels for opinion, suggestion, complaint, and whistleblowing</li> <li>- The meeting arrangement in order to exchange opinions and create bond between directors and employees</li> <li>- The communication and publication of news in the organization</li> </ul>
<p>3. Shareholders and Investors</p> 	<ul style="list-style-type: none"> <li>- The completed and prompt information of any projects that is adequate for decision making</li> <li>- The satisfactory payment of dividend on time stipulated in the policies</li> <li>- The precise, completed, and prompt preparation of financial statement</li> <li>- The cooperation in the project development and both technical and financial supports</li> </ul>	<ul style="list-style-type: none"> <li>- The arrangement of annual general shareholders meeting</li> <li>- The preparation of annual report</li> <li>- The conduct of reports on the Company's status, performance, financial status, and accounting information</li> <li>- The conduct of sustainability reports</li> <li>- The disclosure of information through the stock exchange</li> </ul>

Stakeholders Disclosure	Needs and Expectations	Engagement Approaches
<p>4. Partners</p> 	<ul style="list-style-type: none"> <li>- Getting an offer for job (build the profile)</li> <li>- The clear procurement and on-time payment in accordance with the invoice</li> <li>- The disclosure of accurate and completed information</li> <li>- The operation that complies with the indicated guidelines and conditions</li> <li>- The safety in an operation</li> </ul>	<ul style="list-style-type: none"> <li>- The arrangement of the written contract</li> <li>- The meeting for performance summary</li> <li>- The channels for suggestion and complaint</li> </ul>
<p>5. Supervisory Units</p> 	<ul style="list-style-type: none"> <li>- The operation in accordance with law and terms as agreed upon the condition</li> <li>- The conduct of accurate, completed, and on-time report and information</li> <li>- The comprehensive and prompt declaration of matters of the project</li> </ul>	<ul style="list-style-type: none"> <li>- The all-together meeting for the declaration of needs, exchange of opinions, and suggestions for the improvement of operational efficiency</li> <li>- The conduct of annual report</li> </ul>
<p>6. Communities around the power plants</p> 	<ul style="list-style-type: none"> <li>- The cooperation towards the communities supervision and development, hire of work, remuneration, financial and needs support, and fundamental factors of the communities.</li> </ul>	<ul style="list-style-type: none"> <li>- The satisfaction survey and communities' needs</li> <li>- The channel of news notification</li> <li>- The bonding and joint activities</li> </ul>
<p>7. Society e.g., those interested in applying for job</p>  	<ul style="list-style-type: none"> <li>- The acceptance for job</li> </ul>	<ul style="list-style-type: none"> <li>- The channel for news notification, bonding, and applicants follow-up</li> </ul>



24

---

The Essential  
Matter Towards  
the Sustainability

# The Essential Matter Towards the Sustainability

Sernsang Power Corporation PCL. organizes and analyzes the crucial concerns towards the sustainability related to the business operation by conducting the process of selecting priority issues from needs, and each group of stakeholders' expectations together with the main concerns that affect the Company in accordance with Global Reporting Initiative Standards. The Company is certified for its credibility in accordance with that of Global Reporting Initiative whose processes are included as follows:

## 1. Identification

The Company considers the identification towards the sustainability matter from the information of the business operation that involves in the sustainability matter of the Company. The Company thereby analyzes the internal data e.g. any sustainability concerns from the operating model and the direction of the Company and its affiliates, the external data e.g. any sustainability concerns of the companies, both domestic and international, in the renewable energy industry, the inclination of the sustainability concerns in Thailand and in foreign countries, the sustainability concerns from the reporting approach of Global Reporting Initiative Standards, and the sustainability concerns of Sustainable Development Goals (SDGs) from the sustainability concerns applied in the workshop of which the executives and representatives from all departments of the Company have a discussion in order to reach the concerns relevant to the sustainability contexts and cover all groups of stakeholders of the Company.

## 2. Prioritization

Once acquiring the sustainability concerns from the process of identification, the Company will prioritize the concerns by organizing the workshop with the executives and representatives from all departments of the Company from the Materiality Test which has two aspects towards the prioritization criteria as follows.

1. Economic, environmental, and social impacts that affect the organization, both in positive and negative ways, including any opportunities and risks that may affect the organization in the short and long term. (horizontal axis)
2. Significant influences that affect stakeholders, both in positive and negative ways, including opportunities and risks that may affect stakeholders in the short and long term. (vertical axis)

### 3. Validation

The analyzed and prioritized sustainability concerns will be presented before the chief executives in order to verify the accuracy, completeness, and important sustainability concerns within the scope of internal and external impacts. Subsequently, the foregoing concerns will be presented before the Board of Directors in order to have them review again; also the aforesaid concerns must be comprehensive and be able to reflect the significant impacts on the Company's economic, environmental, and social.

### 4. Review

The Company is committed to conduct its business by continually focusing on sustainability concerns; hence, once the sustainability report is made available in any platforms for the purpose of allowing the stakeholders or people who want to use the report information, e.g. online publications or company website, accessible to it, the shareholders meeting will provide a channel for leaving opinions and suggestions for the further improvement, operational development, and disclosure of the information in the next year's report.

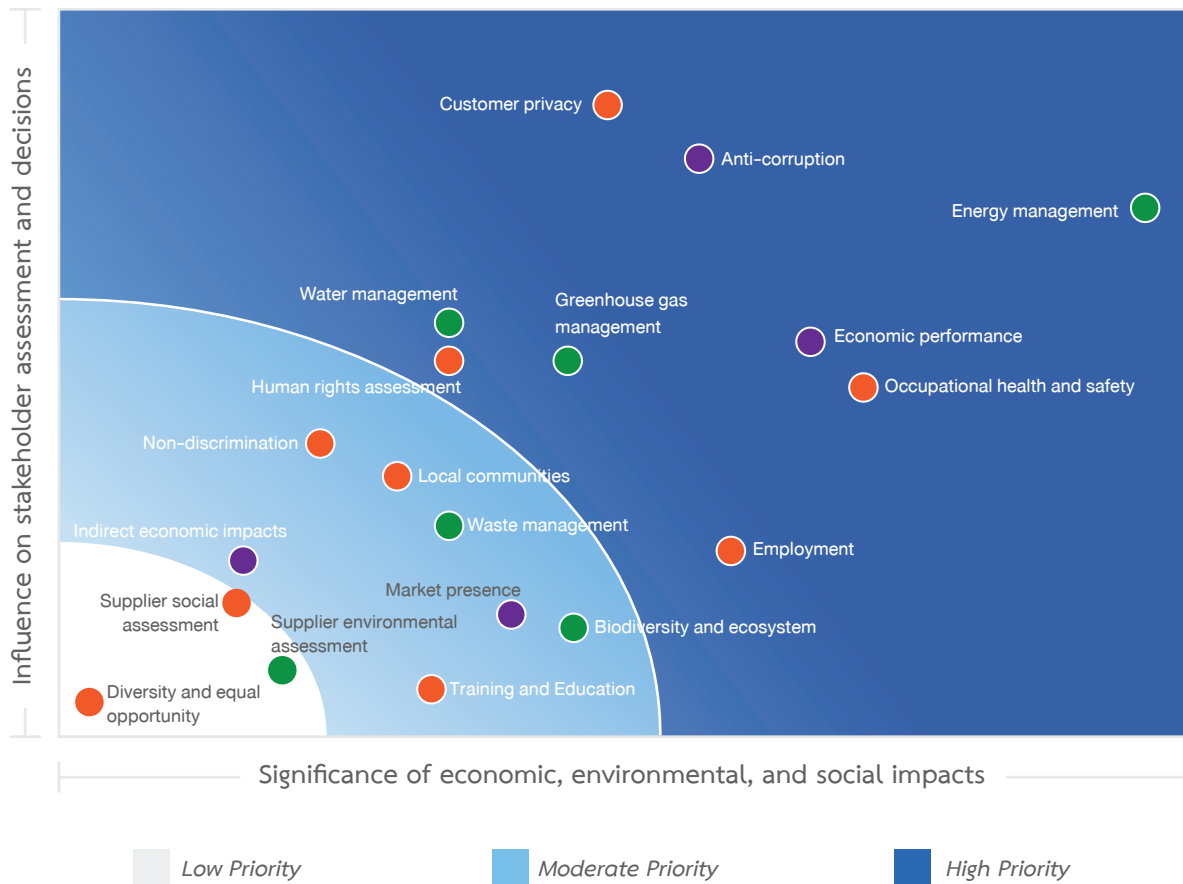
Since 2021, is the first year to disclose sustainable development aspects, there are no restatements of previous reports as well as changes of the material topics and its Boundaries

The diagram illustrating Sermsang Power Corporation Public Company Limited's sustainability concerns laying down in priority in respect of the following perspectives:

1. Economic, environmental, and social impacts that affect the organization both in positive and negative ways including the opportunity and risk that may affect the organization in short and long terms (horizontal axis)
2. Major influences that affect the stakeholders both in positive and negative ways including the opportunity and risk that may affect the stakeholders in short and long terms (vertical axis)



# Materiality Matrix



Total of 15 Materiality topics from high priority 9 topics and moderate priority 6 topics.

<p><b>Economic Dimension</b> </p> <ul style="list-style-type: none"> <li>201 Economic performance</li> <li>203 Indirect economic impacts</li> <li>205 Anti-corruption</li> </ul>	<p><b>Environmental Dimension</b> </p> <ul style="list-style-type: none"> <li>302 Energy management</li> <li>303 Water management</li> <li>304 Biodiversity and ecosystem</li> <li>305 Greenhouse gas management</li> <li>306 Waste management</li> </ul>	<p><b>Social Dimension</b> </p> <ul style="list-style-type: none"> <li>401 Employment</li> <li>403 Occupational health and safety</li> <li>404 Training and Education</li> <li>406 Non-discrimination</li> <li>412 Human rights assessment</li> <li>413 Local communities</li> <li>418 Customer privacy</li> </ul>
--	---	--

list of material topics

Dimensions	Materiality Topics	Impacts		Importance
		Internal	External	
Economic	A Direct Distribution of Economic Value	SSP	- Shareholders and Investors	To strengthen the credibility of the organization as well as to draw attention of investors
	A Risk from Climate Change	SSP	- Shareholders and Investors - Supervisory Units	To be a preventative and managing approach to risks arising from climate change as well as to assure the stakeholders of the Company
	Anti Corruption	SSP	- Employees - Shareholders	To create transparency for the company and build trust with the company's stakeholders, to develop employee to perform their work with transparency as well as to cultivate the company's employee to have a decent conscience
Environment	Energy Management	SSP	- Customers - Partners - Supervisory Units	Building confidence, stability and readiness to supply and use electric power
	Water Management	SSP	- Supervisory Units - Communities around the power plants	Efficient use of resources and water management
	Biodiversity and Ecosystem	SSP	- Communities around the power plants - Society	The compliance with laws and regulations, and reducing environmental and community impacts
	Waste Management	SSP	- Supervisory Units - Communities around the power plants	The cost-effective use of resources reducing environmental and community impacts The compliance with regulations and laws on waste management

Dimensions	Materiality Topics	Impacts		Importance
		Internal	External	
Social	Employment	SSP	- Employees	To retain employees including providing suitable welfare for them
	Occupational Health and Safety	SSP	- Employees - Partners - Communities around the power plants	For the safe operation of employees, partners and local communities To Reduce the number of accidents that occur
	Training and Education	SSP	- Employees	To enhance competency of employees as well as strengthen relationships with employees
	Non-discrimination	SSP	- Employees	To prevent discrimination incidents To have equal and fair operations
	Local Community	SSP	- Communities around the power plants	To operate properly To contribute to the development and support of the local community To build a foundation for a good quality of life for the community
	Customer Privacy	SSP	- Customers - Partners	To protect the privacy of personal information from being infringed including the information that is being used legally

# The Sustainability Regarding Economic Dimension

Sermsang Power Corporation PCL. (SSP) operates the business by holding shares in other companies (Holding Company) whose business is production and distribution of electricity generated from the renewable energy, serving those electricity providers both in Thailand and overseas as well as manufactures that consume loads of electricity.

The Company group establishes policies and directions for the business operation as well as continual business development plan in order to create a stable growth and sustainable profitability, which are beneficial to the shareholders in long term. Besides, the Company group also prioritizes the transparency and accountability; likewise, the Company is confident that the compliance with principles of good corporate governance will bring about benefits, at the utmost, to the shareholders and all group of stakeholders of the Company group.

In 2021, the Company group earned revenue from the sale of electricity, subsidies that increase the purchase price of electricity, construction, service, and other related incomes, in a total amount of 2,698.20 million baht increasing by 16.92 percent from the previous year with EBITDA of 2,023 million baht increasing by 18.62 percent from 2020.

## The Generation and Distribution of Direct Economic Value

Revenue (Million THB)	Total Revenue	
	2020	2021
● Revenue from electricity sale	1,581.00	2,014.20
● Revenue from adder	560.50	564.80
● Revenue from sales	21.50	-
● Revenue from construction	3.50	18.00
● Revenue from services	14.30	7.10
● Other revenues	65.10	95.30
● Total revenue	2,241.60	2,698.20
● Net Profit	824.10	929.50
● EBITDA	1,646.30	2,023.00

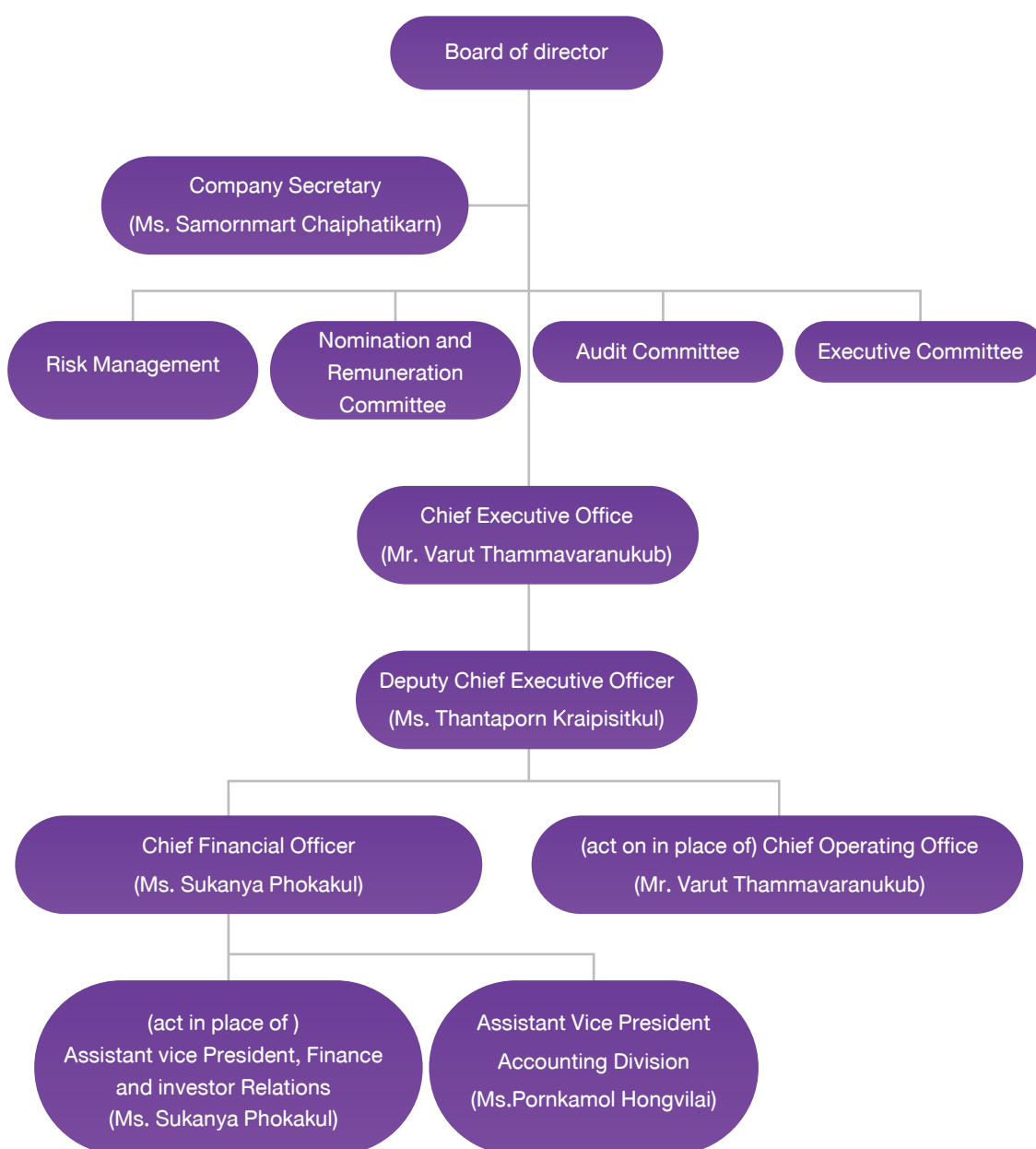
The distribution of economic value to the stakeholders in the business value chain is operating costs, interests paid to the financial institution creditors and debentures, depreciation, taxes paid to the government and local authorities, donations, dividends, and wages and welfares paid to the employees. In 2021, the Company group has operating expenses of 451.90 million baht with an increase of 123.20 million baht from that of previous year, interests paid to the financial institution creditors and debentures of 356.00 million baht with an increase of 42.3 million baht from that of previous year, depreciation of 774.50 million baht with an increase of 218.30 million baht from the previous year, taxes paid to the government and local authorities of 136.70 million baht with an increase of 96.66 million baht from that of previous year, donations delivered to society of 1.02 million baht with an increase of 0.53 million baht from that of previous year, and wages and welfare paid to the employees of 92.78 million baht with an increase of 8.12 million baht from that of previous year. Accordingly, it can be regarded thereof that the business operation of the Company group contributes to the distribution of economic value, in increasing number, to the stakeholders, which is in accordance with the augmented income of the Company group.

Expenditure for income distribution to stakeholders	Total Expenses (Million THB)	
	2020	2021
● Operating expenses	328.70	451.90
● Interest expenses paid to financial institution creditors and debentures	313.70	356.00
● Depreciation	556.20	774.50
● Tax payment to government and local authorities	40.04	136.70
● Financial supports for membership of associations	0.02	0.00
● Community and social development	0.49	1.02
● Dividend payment to shareholders (Baht)	101.42	102.40
● Dividend payment to shareholders (Baht/Share)	0.11	0.111
● Wages and employee benefits	84.66	92.78

Financial assistance received from government	Million THB	
	2020	2021
Tax financial assistance received from government	124.24	127.92

## Corporate Governance

The Company aims to conduct the business with transparency, fairness, clarity and accountability by adhering to the principles of good governance with a clear management structure which promotes an effectiveness of the operation of the Company group, and leads to a sustainable growth. The Board of Directors of the Company thereby appoints four sub-committees i.e., Management Committee, Audit Committee, Nomination and Remuneration Committee, and Risk Committee, working within the specified scope of duties which will enhance the operating efficiency of the Board of Directors of the Company as well as the maximum benefits the Company and shareholders will gain.

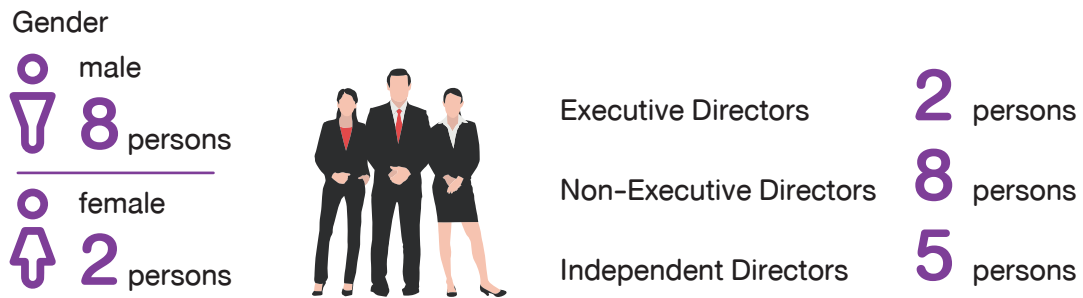


## Composition of the Boards of Directors

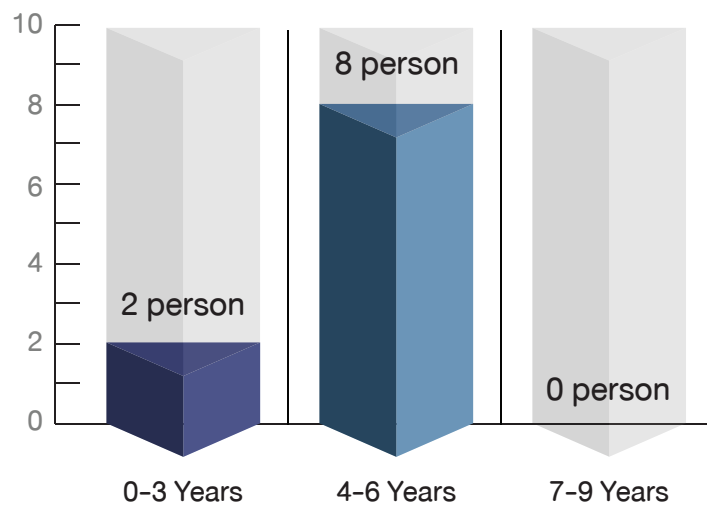
List of names	POSITION
<b>Board of Directors</b>	
Mr. Kamthon Wangudom	Chairman / Independent Director / Audit Director
Mr. Viwat Kraipisitkul	Chief Executive Chairman / Risk Management Chairman / Nomination and Remuneration Director / Director
Mr. Samrieng Mekriengkrai	Audit Committee Chairman / Nomination and Remuneration Director / Independent Director
Mr. Dhana Buphawanit	Audit Directors / Independent Directors
Ms. Thantaporn Kraipisitkul	Executive Director / Risk Management Director / Nomination and Remuneration Director / Director
Mr. Tanawat Kraipisitkul	Executive Director / Director
Mr. Varut Tummavarankub	Executive Director / Risk Management Director / Director
Mrs. Thanyanee Kraipisitkul	Director
General Phairat Phoubon	Independent Directors
Mr. Monchai Phongsathabodee	Independent Directors
<b>Audit Committee</b>	
Mr. Samrieng Mekriengkrai	Audit Committee Chairman
Mr. Dhana Buphawanit	Audit Directors
Mr. Kamthon Wangudom	Audit Directors
<b>Risk Management Committee</b>	
Mr. Viwat Kraipisitkul	Risk Management Chairman
Ms. Thantaporn Kraipisitkul	Risk Management Director
Mr. Varut Tummavarankub	Risk Management Director
<b>Nomination and Remuneration Committee</b>	
Mr. Samrieng Mekriengkrai	Nomination and Remuneration Director
Mr. Viwat Kraipisitkul	Nomination and Remuneration Director
Ms. Thantaporn Kraipisitkul	Nomination and Remuneration Director
<b>Executive committee</b>	
Mr. Viwat Kraipisitkul	Executive Chairman
Ms. Thantaporn Kraipisitkul	Executive Director
Mr. Tanawat Kraipisitkul	Executive Director
Mr. Varut Tummavarankub	Executive Director



## Composition of the Boards of Directors (continued)



## Term of Office



The Board of Directors' meeting is a mandatory duty of the Company's directors in which they are required to attend in regular manner in order to acknowledge the operating performance and other arising problems, share opinions, and make decisions to solve any issues concerning the business operation of the Company. During the year ended on December 31, 2021, the Board of Directors held a total of sixteen meetings.

1. Board of Directors 8 meetings
2. Audit Committee 5 meetings
3. Risk Management Committee 1 meeting
4. Nomination and Remuneration Committee 1 meeting
5. Executive Committee 1 meeting

## Anti-Corruption

Sermasang Power Corporation PCL. and the Company group regard the significance of good corporate governance as an important key to help promote the operation of the Company group for its efficient and sustainable growth, transparent operation, and responsibility to society, community, and environment. The Company determines the approach for the operation with good governance, and instills anti-corruption issues from committees, directors, employees as well as third parties associated with the Company, subsidiaries, and companies under its control, all of whom must strictly comply with the policy without any exceptions.

On June 30, 2021, the Company was accredited by Thai Institute of Directors Association (IOD), as the secretary of the Thai Private Sector Collective Action Coalition Against Corruption (CAC), to be a member of CAC. Such accreditation will be valid for three years from the date of accreditation on June 30, 2021, until the expiration of accreditation, June 30, 2024.

### Anti-Corruption Policy

The Company employee as well as its associated third parties must strictly comply with the anti-corruption policy by not operating or engaging in any forms of corruption whether directly or indirectly both for the benefit of oneself, family, colleagues, or other persons, to government or private agencies whom the Company running business or dealing with.

- 1** The Company employee are prohibited from demanding or receiving any benefits, money, or other properties that may lead to the wrongdoing, omission, or loss of the Company.
- 2** The Company employee are prohibited from offering benefits, money, or other properties to third parties, government officials, or other agencies in order to incentivize that person to misbehave, omits his duty, or violates the law.
- 3** Rather than the compliance with the anti-corruption policy, the Company employee are required to adhere to the regulations, the Company's code of conduct, rules, procedures, and other related laws.
- 4** The Company employee shall not ignore or neglect to any conducts that are considered corruption in relation with the Company. On the other hand, they shall report the supervisor or the person in charge of such misconduct, and shall cooperate in the investigation.
- 5** In the event of fraud or corruption, the Company deems such acts as the serious ones, and will strictly consider taking action against the committed person in accordance with the Company's regulations or law.

The Board of Directors, realized the significance of good corporate governance and disadvantage arising from corruption, stipulates the internal control measures, which are correlate to the main activities that may cause corruption, towards the bribery against government agencies, partners, and stakeholders in any cases that may affect the Company from being creditable and trustful in the view of all groups of stakeholders.

### Communication and training about anti-corruption policies and procedures

Communication and training about anti-corruption policies and Procedures	Person	Percentage
Number of employees that have been communicated to about the organization's anti-corruption policies	35	100%
Number of employees that have received training anti - corruption	35	100%

### Anti-Corruption Communication

- The Company has communication and training towards the anti-corruption within and throughout the organization.
- The orientation for new employees on anti-corruption policies and its approaches on February 1, 2021.

### Confirmed incidents of corruption and actions taken



Total number and nature of confirmed incidents of corruption =

0

In 2021, the Company did not find any complaints about corruption.

## Risk Management

The Company group establishes the risk management policy applied throughout the organization by setting a Risk Committee to consider the policy and assess any risks arising from both external and internal factors as well as to stipulate approaches for risk management to be in an acceptable level. Moreover, there are communication, training, and workshop arranged for the employees enabling them to realize the importance of risk management. The Risk Committee is thereby able to consider appointing a person and/or working groups to carry out any assigned tasks; as well as approving them to monitor and report the compliance with the risk management policy of the Company group to the Risk Committee.

### Risk Management Policy

- 1** Promoting risk management culture in order to create understanding, awareness, and mutual responsibility on risks, controls, and impacts of risks to the Company group in the process of management and operation throughout the Company group.
- 2** Generating the processes, approaches, and measures of risk management that are qualified and adequate to the international standard; as well as identifying, analyzing, evaluating, prioritizing, managing, controlling, monitoring, reporting, evaluating, and communicating information about risks on regular basis and throughout the Company group.
- 3** Measuring the risks in terms of quality such as a reputation and image of the Company group, and quantity such as a loss, decrease in revenue, increase in expense, by considering from the potential opportunities and impacts.
- 4** Setting a risk limit in order to limit the loss that may arise to be within the Company group's acceptable level, including determining the event or risk level that is a warning signal for operators to take any action controlling the risk to not exceed the specified risk limit.
- 5** Having the written operating regulations which enable the executives and operators to adhere upon the control of operational risks.

## Operation Process

### **1** Policy Formulation and Risk Management Criteria

This is the formulation of policies, objectives, scopes, responsibilities, criteria, and approaches of risk management in order to comply with strategies, goals, plans, and directions of business operation by which the Company group will have an annual review, and proceed together with the business plan for the correlation.

### **2** Risk Identification

This is the identification of the potential risks that may affect the achievement of objectives and goals, by considering the risks arising from internal and external factors e.g., environment, law, finance, information system, decision-making information system, investor's satisfaction, investment management, human resource, reputation and image, and security system for instance. The Company group will thereby manage the risks by prioritizing them after their importance before considering the control system; if the risks are at high and very high levels, the Company group will analyze those risks to be managed first.

### **3** Risk Analysis

This is the analysis to assess the level of risk remaining after the assessment of the existing control system, and to prioritize risks. If the remaining risks remain at the high and very high levels, risk management measures must be established immediately by the responsible senior executives. However, if the remaining risks are at medium or low levels, the management measures at the department level or an adjustment in an operating process are required.

### **4** Risk Management

This is the stipulation of how to formulate a plan to manage critical risks as being prioritized in the process of risk analysis. There are several ways to manage risks such as controlling, transferring, avoiding, taking advantage of, or accepting the risks.

### **5** Follow-up and Review

This is the process of monitoring the result of risk management according to the plan set forth, including assessing the result thereof by which the Risk Committee will monitor and report to the senior executives and the Board of Directors.

Risk factors to the business operation of the Company and the Company's Group which has been considered by Senior Executives and Risk Committee

Types of Risk	Risk Issues
1. Risk of being a company that operates the business by holding shares in other companies (Holding Company)	<ul style="list-style-type: none"> <li>- Earning revenue from holding shares in other companies and not running its own business that will generate significant income</li> <li>- Significant changes in legal requirements of the countries in which the Company operates the business may result in a decrease in dividend income</li> </ul>
2. Business risk	<p>2.1 Risk of solar power plant and wind power plants businesses</p> <ul style="list-style-type: none"> <li>- Risk of solar exposure having less light intensity than anticipated</li> <li>- Risk of wind conditions having lower speed than anticipated</li> <li>- Risk of solar panels deteriorating faster than anticipated</li> <li>- Risk related to efficiency and continuity of the power generation process</li> <li>- Risk of the management of projects being under construction</li> <li>- Risk from increased operating and maintenance costs of solar power plants</li> <li>- Risk of expenses arising from the renewal of the warranty and the increasing equipment used in solar power plants</li> <li>- Risk from relying on the main clients</li> <li>- Risk from natural disasters or force majeure</li> </ul> <p>2.2 Other risks related to business operation</p> <ul style="list-style-type: none"> <li>- Risk of relying on employee especially the Chief Executive Officers</li> <li>- Risk from changes in government policies and that of other relevant government agencies</li> <li>- Risk from the loss of revenue from the curtailment of power purchases</li> <li>- Risk from the absence of chief electrical engineer who takes charge in the operation of solar power plants in Japan</li> <li>- Risk from participating in the management of solar power plant projects in Japan</li> <li>- Risk from a decrease in average electricity tariff received by the Company group</li> </ul>
3. Management risk	<ul style="list-style-type: none"> <li>- Risk from having the majority shareholders control the vote of the shareholders' meeting</li> </ul>
4. Financial risk	<ul style="list-style-type: none"> <li>- Risk from the fluctuation in interest rates</li> <li>- Risk from the fluctuation in foreign exchange rates</li> <li>- Risk from the ability to perform obligations</li> </ul>
5. Risk from new project investments	<ul style="list-style-type: none"> <li>- Risk from the return on investment not being as anticipated</li> <li>- Risk from the land management for use in the business of generating and distributing renewable energy</li> <li>- Risk from the investment in renewable energy power plant project abroad</li> </ul>

Types of Risk	Risk Issues
6. Risk related to the Company's ordinary shares	<ul style="list-style-type: none"> <li>- Risk from Thai law and the Company's regulation which restricts on shareholding by foreign shareholders by which such restriction may affect the liquidity and market price of the Company's share</li> </ul>
7. Risk from economic volatility caused by the Covid-19 outbreak	<ul style="list-style-type: none"> <li>- Risk from more procedures and difficulties of international commute among employees and project developers</li> <li>- Risk of delays in project development</li> <li>- Risk from asset values and debts</li> </ul>

## Risk Related to Potential Impacts of Climate Change

### 1. Risk of solar exposure having less light intensity than anticipated

Solar power plants rely mainly on sunlight in order to generate electricity. If the intensity of the light is less than anticipated, it may have a negative effect on the operation. During the feasibility study of the project, the Company group carefully assessed the location of the project areas and studied the light intensity statistics in each area by using historical data of light intensity for approximately 25 to 28 years from reliable sources such as information from the Department of Alternative Energy Development, Ministry of Energy, National Aeronautics and Space Administration (NASA), New Energy and Industrial Development Organization (NEDO), and Metronome for instance, in order to ensure that the project location has a level of light intensity that can be profitable, at a satisfactory level, to the Company group. Furthermore, the Company group considered hiring technical consultants for the careful assessment of various factors such as light intensity, land characteristics, project location, and features of the equipment that are suitable for the project, serving the pertinent decision upon the investment of the Company group.

### 2. Risk of wind conditions having lower speed than anticipated

Wind power plants rely mainly on wind power in order to generate electricity. If the velocity of the wind is lower than anticipated, it may have a negative effect on the operation. During the feasibility study of the project, the Company group carefully assessed the location of the project areas and installed the wind tower to collect wind velocity and other information engaged in the assessment of wind power for a period of more than one year. The Company group, then, used such information to simulate wind conditions by finding the relation between microscale data from wind towers and satellites together with international climate models. The Company group thereby retroactively uses wind data, no later than the project period or approximately 20 years, from the reliable sources such as MERRA-2 climate model data from the National Aeronautics and Space



Administration (NASA) and ERA-5 climate model data from European Center for Medium-Range Weather Forecasts (ECMWF) for instance, in order to ensure that the project location has wind conditions that can be profitable, at a satisfactory level, to the Company group. Furthermore, the Company group considered hiring technical consultants for the careful assessment of various factors, serving the pertinent decision upon the investment of the Company group.

### 3. Risk from natural disasters or force majeure

Currently, the Company group operates the business of producing and distributing electricity from solar energy in Thailand, Japan, Mongolia, and Vietnam. If there is an unforeseen natural disaster or event of force majeure such as electrical breakdown, flood, blizzard, fire, earthquake, volcanic eruption, or sabotage in the area that the Company group's solar power plants are located, the operation of the solar power plants may be interrupted, or the Company group may incur loss, both of which may result in a negative effect to the business operation and financial status of the Company group. The Company, in the processes of selecting and preparing the area of the project, studied historical natural disaster statistics in order to ensure that the projects are located in areas with a low probability of disaster as well as provided insurance to minimize the potential risks and financial issues. The Company thereby established the insurance policy in the same level as that of other operators in the industry in accordance with the conditions specified by the commercial banks and financial institutions who offer the loan for the project (Project Finance), which provide maximum coverage under appropriate premiums.



# The Sustainability in the Environmental Dimension

The Company group operates under the framework of good governance with the sustainability goal to maintain itself as a role model of Good Corporate Citizen for sustainable business operations that has steady growth and is recognized by society. The Company group, therefore, emphasizes the importance of environmental quality and biodiversity management according to relevant laws and regulations such as ISO 9001:2015 Quality Management System which includes investment, development, and quality improvement in environmental management and promotion of the efficient, appropriate, and most beneficial use of resources.

The Company group has implemented environmental protection policies to ensure the safety of the environment and reduce the impacts on the environment in all business processes and set the following guidelines:

**1**

Surveying the area together with people in the community to evaluate the impact on the environment and prepare an initial environmental impact report (IEE Report) to be used in the assessment before commencing the construction of the project.

**2**

Establishing clear planning and implementation of operating systems and ensuring that they are in line with external agencies to reduce the impact on the environment and the community both directly and indirectly.

**3**

Setting standards for the disposal of hazardous waste such as solar panels, broken or expired equipment. In this regard, the site and disposal methods are chosen according to the standards and regulations required by the law.

**4**

Adopting systematic environmental management, follow-up process for evaluation, and reviewing process for continuous improvement.



Sernsang Power Corporation PCL. realizes the importance of the advancement and change in energy consumption. Therefore, the Company group is among one of the first investors in the renewable energy business in Thailand (The first mover of renewable energy in the country). The Company group aims to be a part of sustainable energy production and supply that promotes the efficient and effective use of resources towards sustainable development and becomes Asia's leading renewable energy company.

The scope of the data in this 2021 sustainability performance report is in environmental dimensions which include energy, greenhouse gas emissions, water resource management, and waste management covering a group of subsidiaries located in Thailand, namely:



**Solar Farm Business**  
- Sernsang Power Limited (SPN)  
- Sernsang Solar Limited (SS)



**Solar Rooftop Business**  
- Sernsang Infinite Limited (SN)



**Biomass Business**  
- Uni Power Tech Limited (UPT)

## Energy Management

The Company group operates the business of producing and supplying electricity from renewable energy resources. It is committed to building confidence, stability, and readiness for electricity generation and distribution and has set goals to increase production efficiency and improve energy efficiency including investment expansion in renewable energy business along with taking into account the impact on the environment and the well-being of local communities to enable sustainable development.

The energy consumption in process per unit of production shows the efficiency of electricity consumption of each subsidiary and each business model of electricity generation as well as the operational efficiency of each project. In addition, the energy consumption rate can also be used as energy consumption goals, such as setting goals to reduce energy consumption and improving processes or behavior to increase productivity. In the future, the International Energy Intensity Index (EII), a measure of the energy consumption per unit of product produced per unit of income, that will be used in setting the Company group's energy management with in 2024.



Energy	SPN	SS	SN	UPT
--------	-----	----	----	-----

Amount of energy used in the organization  
(unit: MWh, megawatt-hour)

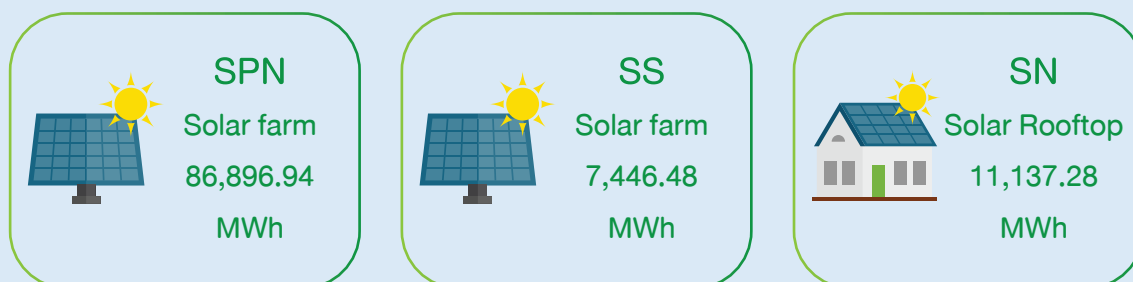
Amount of energy used	602.00	24.18	N/A	8,316.46
Amount of electrical energy produced	87,873.32	7,513.75	N/A	74,707.37
Amount of electricity sold	86,896.94	7,446.48	11,137.28	66,390.91

The proportion of energy consumption in the process per unit of production

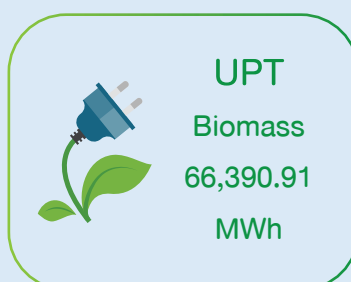
The proportion of energy used in the process per unit of production	0.006	0.003	N/A	0.11
---	-------	-------	-----	------

There is some information that is not included in the report since the year 2021 is the first year that the company group has prepared a sustainability report. Among the incomplete data, the data of this year's electricity generation of the Solar Rooftop Power Plant Project (SN Company) that has many sub-projects installed at multiple locations and poses a challenge in collecting data is not incorporated into this report.

Sales of electricity from solar energy: total sales capacity 105,480.70 MWh



Sales of electricity from biomass energy: total sales capacity 66,390.91 MWh



## Greenhouse Gas Management

The severe climate change has significantly affected the world, the Company group is, therefore, focusing on and aware of the disaster that may occur, emphasizing the development and operation of generating electricity from clean energy sources that do not pollute the environment, contributing to promoting a low-carbon society to reduce the severity of climate change at the regional, national and Asian levels. The emission of greenhouse gas reflects a significant impact on the environment by business operations. The Company group has determined to establish socially and environmentally responsible operations that include management approaches according to sustainable business development to invent ways to reduce the use of resources, increase energy efficiency, risk assessment, lower impact, protect the environment, and expand investment in the renewable energy business.

The Company group attaches great importance to being a part of the greenhouse gas emission assessment by adopting management guidelines in accordance with the organization's sustainability development policy in order to invent methods to reduce the use of resources and energy and lower greenhouse gas emissions. This includes assessing the risks and impacts of climate change to plan solid and sustainable responses.

Greenhouse gas emissions	SPN	SS	SN	UPT
<b>Direct corporate greenhouse gas emissions (Scope 1)</b> (unit: ton CO <sub>2</sub> e, ton carbon dioxide equivalent)				
Amount of fuel used in transportation	-	-	-	41.024
Total Scope 1 = 41.02 ton CO <sub>2</sub> e				
<b>Indirect greenhouse gas emissions from energy use (Scope 2)</b> (unit: ton CO <sub>2</sub> e, ton carbon dioxide equivalent)				
Electricity consumption	360.35	14.47	N/A	4,978.23
Total Scope 2 = 5,353.05 ton CO <sub>2</sub> e				
<b>Other indirect greenhouse gas emissions (Scope 3)</b> (unit: ton CO <sub>2</sub> e, ton carbon dioxide equivalent)				
Employee travel distance	-	-	6.764	-
Water-supply use	0.14	-	0.03	-
General waste	1.07	0.04	0.58	3,331.86
Total Scope 3 = 3,333.55 ton CO <sub>2</sub> e				

The table shows the performance of the SS subsidiary company that used groundwater. Although there were no greenhouse gas emissions as well as water-supply use, the company took into account the sharing of resources with the community and had guidelines that comply with relevant laws and regulations. Moreover, the UPT subsidiary company used surface water in the operation process. Therefore, it was not taken into account for calculating greenhouse gas emissions in Scope 3. Even each subsidiary uses the same amount of water, the sources of water used generate different implications in greenhouse gas emissions.

In addition, the calculation of greenhouse gas emissions for hazardous waste which consists of a total of 30.64 tons of solar panels is not taken into the calculation because, in 2021, the Company was in the process of inspecting and disposing of industrial waste to comply with the standards and regulations which resulted in no disposal of such waste. However, the Company had established guidelines for proper storage in order to avoid the disturbance or effect to the operations. Because the disposal of hazardous waste had never been implemented before, as a result, the data concerning hazardous waste was the data that had been collected since the start of operations. The number was not the actual amount of hazardous waste in 2021. Therefore, the data were omitted in the annual greenhouse gas emissions calculation since it may cause inaccuracy in the emission calculation.

In the combustion process from biomass power generation, the biomass used as feedstocks was wood chips, bark, cassava bark, and palm shred the burning of these raw materials emitted the same level of greenhouse gas as when trees captured carbon dioxide in photosynthesis. As a result, biomass energy is carbon neutral and the combustion process is, therefore, not taken into the calculation for direct greenhouse gas emissions in Scope 1.

The Company group is committed to improving operational efficiency by taking into account the reduction of greenhouse gas emissions in studying and improving operational processes, for example, the upgrade of solar panels with higher capacity per installation area and use of LED lighting in offices in order to increase energy efficiency and reduce greenhouse gas emissions.

The overall performance in 2021 from solar energy generation business, namely SPN, SS, and SN, and biomass energy generation business, namely UPT are as follows:

The amount of direct greenhouse gas emissions (unit: ton CO <sub>2</sub> e, ton carbon dioxide equivalent)	41.02
The amount of indirect greenhouse gas emissions (unit: ton CO <sub>2</sub> e, ton carbon dioxide equivalent)	5,353.05
The amount of other indirect greenhouse gas emissions (unit: ton CO <sub>2</sub> e, ton carbon dioxide equivalent)	3,333.55
The amount of direct and indirect greenhouse gas emissions from electricity generation (unit: ton CO <sub>2</sub> e, ton carbon dioxide equivalent)	5,394.07
The amount of electricity sold (unit: MWh, megawatt-hour)	171,871.61
The proportion of greenhouse gas emissions per unit of electricity sales (unit: ton CO <sub>2</sub> e / MWh)	0.031



## Water Management

The production and distribution of electricity from renewable energy are business activities that consume a small amount of water in the operations, however, the Company group realizes the importance of sharing water resources, cost-effective use of water, maximizing benefit from water use, minimizing the impact that may cause water scarcity as well as complying with the requirements and laws in water management. This commitment can be seen in the design of the project areas of the Company group. At present, the project's design and construction plan have been planned by taking into account the impact on the drainage system that may jeopardize agriculture and consumption of the local community.

Efficient resource management, where SPN and SN companies used 484 m<sup>3</sup> and 120 m<sup>3</sup> of provincial water supply, respectively, in their operations and cleaning of solar panels in the project. The SS Company implemented the treatment process for pumped-up groundwater prior to using it in the operation process. In this regard, the SS company strictly complied with laws and requirements by notifying the Department of Ground Water Resources on the monthly groundwater pumping volume. In 2021, a total of 710 m<sup>3</sup> of groundwater were pumped. On the other hand, the UPT company used 264,527 m<sup>3</sup> of surface water since the biomass energy generation process uses a lot of water in the process. By acknowledging the nature of the process, the company constructed a rainwater pond system to reduce the impact on the co-use of water resources with the community and reduce the impact that may cause water shortage problems. Furthermore, the company installed the wastewater treatment system and closely monitored and frequently evaluated the performance. In addition, the company introduced the water treatment guidelines according to the standards of wastewater treatment plants. In 2021, there were no violations of regulations or laws in the aspect of water discharge.

The Company group has guidelines for the improvement and development of water resource management within 2024, in the matter of water treatment, in-depth data collection, adopting the 3Rs principles (Reduce, Reuse, and Recycle) to reduce and recycle as well as increase resource efficiency, for example, the analysis of water consumption in the production process per electricity volume (m<sup>3</sup>/MWh)



Water Resources	SPN	SS	SN	UPT
-----------------	-----	----	----	-----

Water withdrawal  
(unit: m<sup>3</sup>, cubic meter)

Surface water	0	0	0	264,527
Groundwater	0	710	0	0
Third-party water	484	0	120	0

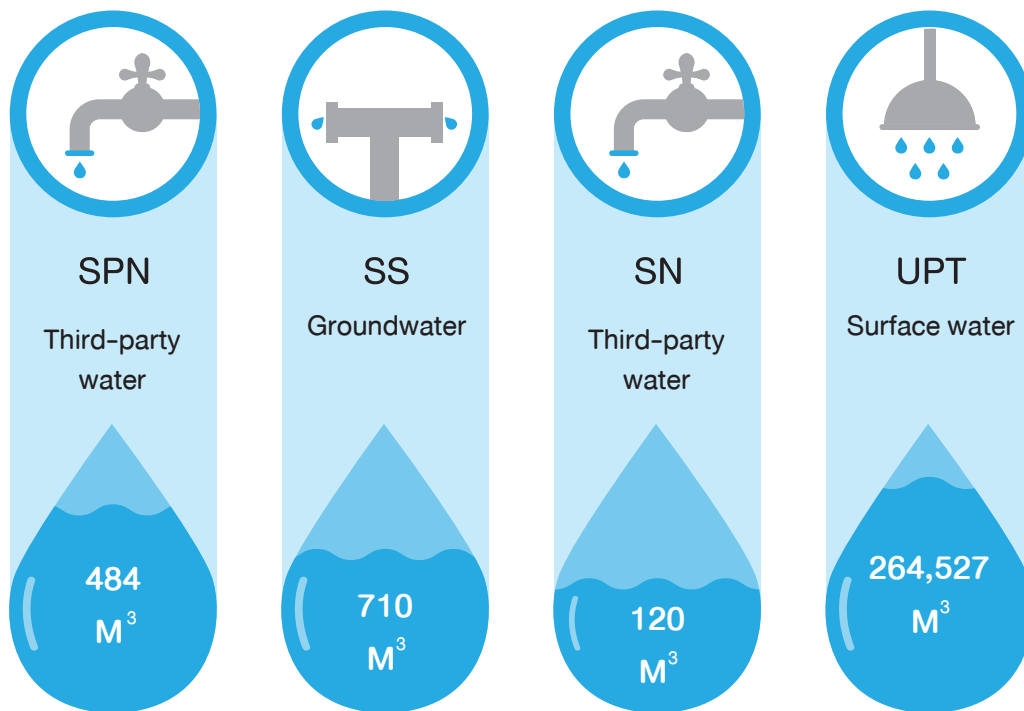
Water discharge  
(unit: m<sup>3</sup>, cubic meter)

Total water discharge	N/A	N/A	N/A	No discharge
-----------------------	-----	-----	-----	--------------

Water consumption  
(unit: m<sup>3</sup>, cubic meter)

Surface water	0	0	0	264,527
Groundwater	0	710	0	0
Third-party water	484	0	120	0

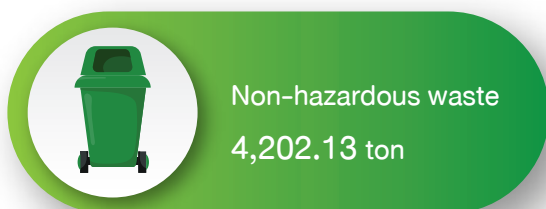
water consumption



## Waste Management

Waste management reflects environmentally responsible operation, the Company group is committed to reducing general waste and disposal of hazardous waste generated from the company's project by adhering to the guidelines for the implementation of the sustainability policy in the cost-effective use of resources, reduction of the impact and compliance with waste disposal laws and regulations as well as endorsement the waste management guidelines by hiring a juristic person with expertise in managing hazardous waste generated from projects such as solar panels, equipment, and containers that are damaged, deteriorated or expired. Each project site has designated hazardous waste storage areas to allow the designated juristic person, who is registered with the authority, to use for disposing of hazardous waste in the proper manner that complies with the required standards and regulations.

2021 is the first year that waste management data has been collected and disclosed, the Company group is committed to developing operational guidelines for efficient use of resources, reducing the amount of waste that is disposed by burning or landfill, an operational risk assessment that may cause damage to solar panels in order to focus on the cost-effective use of resources. According to the 3Rs principle comprises of reducing the amount of wasted, reuse, and recycle, or organizing activities to promote the reduction of the impact on the environment, such as a zero-waste day, plastic reduction campaign, and donate solar panels to communities; which encourages internal and external stakeholders to recognize the importance of waste treatment and advocating drive for recycling, avoiding and reducing impact on the environment and the community, and develop operational efficiency within 2024.



The solar panels stored for destruction are hazardous waste that is not disposed because of the Company is currently under the reviewing process by the BOI to obtain permission to dispose of industrial waste. This is because the production of electricity by solar energy requires solar panels which are classified as industrial hazardous waste. The hazardous waste generated in the operation comes from solar panels that are expired, deteriorated, or damaged by an accident, such as a rock or a ball bearing falling onto them, etc.



Waste	SPN	SS	SN	UPT
<b>Waste generated (unit: ton)</b>				
Non-hazardous waste	1.35	0.05	0.73	4,200
Hazardous waste	27.3	1.8	0.54	1
<b>Waste diverted from disposal (unit: ton)</b>				
<b>Non-hazardous waste</b>				
Reuse	0	0	0	0
Recycle	0	0	0	0
<b>Hazardous waste</b>				
Reuse	0	0	0	0
Recycle	0	0	0	0
<b>Waste directed to disposal (unit: ton)</b>				
<b>Non-hazardous waste</b>				
Bangkok Metropolitan Administration (BMA)	1.35	0.05	0.73	0
Landfilling	0	0	0	4,200
Other disposal operations	0	0	0	0
<b>Hazardous waste</b>				
Bangkok Metropolitan Administration (BMA)	0	0	0	0
Landfilling	0	0	0	0
Stored for destruction	27.3	1.8	0.54	1



## Biodiversity and Ecosystem

The Company group recognizes the importance and be aware of the impacts from operations that may affect the ecosystem and surrounding environment. Although in Thailand, the solar power plant is a non-compulsory business to submit the Environmental Impact Assessment Report (Environmental Impact Assessment: EIA), the Company group establishes strict operating guidelines and practices in environmental aspects in accordance with relevant laws and regulations.

Overseas solar power plants operate strictly in line with the environmental operations regulatory and relevant laws of each country. The Company group has studied and worked for the implementation of measures related to environmental impact assessment, such as implementing operational measures in the project in Japan. In Japan, the surveys, inspections, and assessments of the abundance of ecosystems and the environmental impact of the area were required prior to the project commencement, for example in a mountain crossing, the question of how the project affects the number and species of insects and flowers in that area must be answered. After the establishment of the project, the species and densities of the organisms are assessed quarterly, every season, to ensure that the operation of the project is not affecting the species throughout the project period. In the event that rare species that are near extinction are found, it requires that a study is to be conducted and relocation of that species has to be performed to reduce the impact on and maintain the balance of the ecosystem. If the habitats of rare or endangered species cannot be relocated, the Company group is unable to carry out projects in that area.



# The Sustainability in Social Dimensions

Sermsang Power Corporation PCL. recognizes the groups of stakeholders affected by business operations as well as emphasizes the sustainability in the social dimension of all activities throughout the value chain. Sustainability in the social dimension covers all stakeholder groups, i.e., employees, customers, and communities.

In this regard, the scope of the report on sustainability performance in 2021 in social dimensions is covering the issue of occupational health and safety, non-discrimination, human rights, local communities, customer privacy in every subsidiary company both at home and abroad. The topic of new-hired employees and retired employees will cover a group of subsidiary companies located in Thailand as follows:

- ⊗ Sermsang Power Corporation PCL. (SSP)
- ⊗ Sermsang Power Limited (SPN)
- ⊗ Sermsang International Limited (SI)
- ⊗ Sermsang Infnit Limited (SN)

The training and education section will cover a group of subsidiaries located in Thailand as follows:

- ⊗ Sermsang Power Corporation PCL. (SSP)
- ⊗ Sermsang Power Limited (SP)
- ⊗ Sermsang International Limited (SI)

## Human Capital Development

The Company group attaches great importance to its employee relations because employees are a key player in driving the organization forward. Therefore, the Company group has implemented a set of policies for creating a happy working environment for all employees, encouraging employees to accept each other, and treating employees at all levels like family members. The Company group is also committed to treating all employees equally in accordance with human rights principles on a non-discrimination basis.

The Company group has given importance to human resource management in every process in order to maintain the most efficient operation by focusing on the quality from the recruitment process, continuous training to develop the potential of employees at all levels, career advancement management, fair compensation and welfare as well as encouraging employees to express opinions and give feedback. During the COVID-19 pandemic, the Company group performed a survey to acquire any information from its employees concerning the need for additional work guidelines or benefits during the pandemic. This is to promote the creation of a safe and suitable working environment for employees to enable them to have good health and be ready to work for the organization.

## Operational Goals



Employees are knowledgeable and competent and have the determination to work for the organization



Employees receive a 100 percent performance evaluation.



Reduction of complaints concerning discrimination/human rights violations



Zero violations of customer privacy



Providing equal employment opportunities. The Company group provides equal employment opportunities for local communities surrounding the operating sites by considering the knowledge, abilities, and qualifications that must be met with the requirements of the Company.



Providing opportunities for career advancement to employees according to the appropriate qualifications by conforming to non-discriminate principles (take the race, religion, skin color, gender, and other restrictions involved out of the promotion process)



Operating in accordance with good corporate governance principles



Earning credibility in operations from stakeholders

## Performance



35 employees or 100% received anti-corruption communication and training.



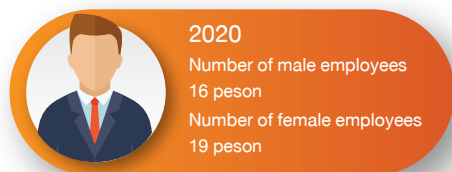
In 2021, No complaints related to discrimination/human rights violations had been reported.



No complaints of customer privacy



## New Employee Hires and Employee Turnover



The Company group places importance on the allocation and management of human resources. Starting from the employee selection process, the Company group considers the selection of employee whose qualifications, skills, and knowledge are appropriate to the needs of the organization's line of operation. The Company group provides equal employment opportunities and does not discriminate against any particular applicants as well as offers an attractive compensation and welfare schemes to enable the well-being of its employees. The Company group adopts this policy as a guideline for talent and capable employees retention as well as reduces the rate of employee turnover.

Employees Turnover	2020		2021	
Total	6		5	
<b>Classified by gender</b>	Amount	Ratio (%)	Amount	Ratio (%)
Male	5	83.3%	4	80%
Female	1	16.7%	1	20%
<b>Classified by age group</b>				
Under 30 years	2	33.3%	4	80%
Between 30-50 years	4	66.7%	1	20%
Over 50 years	-	-	-	-

New Employees	2020		2021	
Total	7		13	
<b>Classified by gender</b>	Amount	Ratio (%)	Amount	Ratio (%)
Male	4	57.1%	9	69.2%
Female	3	42.9%	4	30.8%
<b>Classified by age group</b>				
Under 30 years	3	60%	11	84.6%
Between 30-50 years	2	40%	2	15.4%
Over 50 years	-	-	-	-

Employees	2020		2021	
	Amount	Ratio (%)	Amount	Ratio (%)
<b>Classified by gender</b>				
Male	16	45.7%	19	47.5%
Female	19	54.3%	21	52.5%
Total	35	100%	40	100%
<b>Classified by age group</b>				
Under 30 years	8	22.9 %	14	35%
Between 30-50 years	25	71.4%	24	60%
Over 50 years	2	5.7%	2	5%
<b>Classified by religion</b>				
Buddhist	34	97.1%	39	97.5%
Christian	1	2.9%	1	2.5%
Islam	-	-	-	-
Others	-	-	-	-
<b>Classified by level</b>				
<b>Top executives</b>	3	8.57%	3	7.5%
Male	1	2.86%	1	2.5%
Female	2	5.71%	2	5%
<b>Department managers</b>	3	%	3	7.5%
Male	1	2.86%	1	2.5%
Female	2	5.71%	2	5%
<b>Department heads</b>	10	%	12	30%
Male	7	20%	7	17.5%
Female	3	8.57%	5	12.5%
<b>Junior to middle-level employees</b>	19	54.3%	22	55%
Male	9	25.71%	9	22.5%
Female	10	28.57%	13	32.5%
<b>Operations staff</b>				
Male	-	-	-	-
Female	-	-	-	-

## Employee Benefits and Welfares

The Company group is committed to creating a good and happy working environment for all its employees and is obligated to treat employees at all levels equally. In taking care of its employees, the Company group allocates welfare in various aspects as required by law and provides additional subsidies such as life insurance, health insurance, accident insurance, provident fund, vacation days, bonus based on performance, grants for the funeral expenses of the deceased parents, uniforms, etc. to the employees.

In addition to the above benefits, the Company group recognizes that employees should be entitled to child support and it is a children's right to be properly cared for and breastfed at birth. Therefore, all employees both female and male are entitled to maternity and parental leave. This is to encourage male employees to take parental leave to help their wives take care of their children.

## Parental Leave

Parental Leave	2020 Amount	2021 Amount
Classified by gender		
Male	0	0
Female	0	1
Total	0	1
Employees back to work after parental leave		
Male	0	0
Female	0	1

## Collective bargaining agreements

The Company provides employees with an opportunity for communication and negotiation relating to employee benefits by organizing employee surveys to listen to the opinions, needs, and expectations of all employees in the company. The collected opinions, needs, and expectations are to be used as a precursor for developing a welfare and benefits scheme so that employees receive equal welfare that meets the requirements, and expectations such as life insurance, accident insurance, provident fund, maternity and parental leave, and all the basic employee benefits required by law.

## Training and Education

Employees are the main engine that drives the Company group to grow sustainably. In order to encourage employees in the Company to continuously develop and grow together with the organization, the Company group implements a set of policies to promote the development of employees by providing opportunities for employees at all levels to learn and build skills to develop competence in each line of operation plus the opportunity to learn another line of operation according to the needs of the employees. This is to enable employees to cope with the changes and be ready for the growth of the Company by working with professionalism and efficiency.

The Company is committed to employees development and competency improvements with equal opportunities and equal training hours for all levels of employees. The training and education goals within 2024 are average training hours at 20 hours per person per year, becoming a strong learning foundation organization which focus on career development and knowledge management. This will prepare the employees and the Company to cope with the rapid changes of the world



### Employee Training Course Example




- ⊗ The Secret Sauce Strategy Forum
- ⊗ Project management using Strengths
- ⊗ Commercial contract: Strategic Tax
- ⊗ Analysis and Management Strategy
- ⊗ Techniques for setting up payment systems abroad
- ⊗ Summary of important accounting principles, Accounting for Impacts and Update on Tax Laws of 2020



### Percentage of employees receiving performance evaluations

Employees performance evaluation	2020	2021
Top executives		
Department managers		
Department heads	Male/Female	Male/Female
Junior to middle-level employees	100%	100%

### Average training hours of all company employees

	Male 	Female 	Total average training hour 
2020 (Hours)	12	9.3	10.7
2021 (Hours)	12	10	11

### Average training hours for each employee levels

Average training hour	2020 (Hours)	2021 (Hours)
Top executives	8	-
Department managers	12	12
Department heads	12	12
Junior to middle-level employees	10	10

### Investment in Training and Education

	2020 : 73,784 Baht		2021 : 13,685 Baht
---	--------------------	---	--------------------

## Occupational Health and Safety

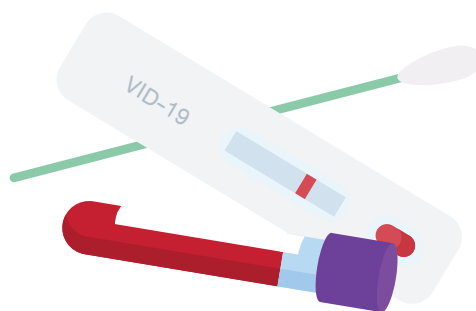
Sernsang Power Corporation PCL. is committed to attaching importance to occupational health and safety. Occupational health and safety are issues that directly affect employees and contractors who are one of the important stakeholders that the Company must pay attention to. The Company implements a set of policies on occupational health to support the operational management of the subsidiaries company to ensure the utmost safety in operations in accordance with the standards. Currently, the Company group has appointed the committee for oversight the occupational health and safety comprising representatives from both management and employee. The committee is responsible for managing the operations in accordance with the safety standards, exchanging critical information from both sides to develop, modify, and review safety procedures.

In addition, the Company group has been promoting safety awareness and occupational health among employees and contractors to raise the level of work safety in the Company's operations aiming to achieve the goal of "zero accident". Moreover, an operational risk assessment has been conducted in every step of the operation for the safe operation to reduce and control the risks in the operation process. The Company group has prepared contingency plans to prevent accidents, identify initial risks as well as review the process to find gaps for improvement and development, find solutions, reduce, and mitigate various risks.

### Occupational health services

The Company group attaches great importance to the health of all employees and contractors while working. Therefore, in the management of employee health and safety services, the Company group provides an annual physical examination plan including health and accident insurance for employees to promote the health of employees and mitigate risks from work.

The Company group is well aware of and concerned about the situation of the COVID-19 pandemic. In response to the pandemic, the Company group provides a preliminary physical examination by using an ATK test kit as well as endorsed the body temperature check measures at the entrance and exit for employees and visitors who enter the company's premises.



## Worker training on occupational health and safety

The Company group focuses on preventing accidents that may occur while working. The Company group has set “zero accident” as the goal of occupational accidents. In order for employees to work safely and with good workplace hygiene, the Company group provides training on safety and occupational health for employees and contractors before starting work and implements the follow-up process and measurement to bring improvement, raise safety standards beyond the criteria required by the law, enhance good conscience while instilling a culture of safety among employees and contractors. The Company group strictly prohibits the operation without safety control measures, safety equipment, and the operation with the lack of safety training that ensures the safety of that particular operation.

### Training programs for employees and contractors as follows:

1

First aid training including the handling of poisonous snake bite



2

Training of emergency operations team



3

Emergency evacuation drills



4

Firefighting and fire escape drills



## Promotion of worker health

The Company group attaches importance to the health, quality of life, and well-being of all employees and contractors. The health promotion programs and services have been organized to promote good health, such as an annual physical examination, health insurance, life insurance, accident insurance including the continuous health communication to promote health care campaigns by projects and activities with the aim to enhance good health of the employees across the company.

## Results of operations

From occupational safety and health aspects, the Company monitored, measured and collected data, and analyzed the results according to the indicators, such as Injury Rate (IR), Occupational Disease Rate (ODR), Absent Rate (AR), and High-Consequence Work-Related Injuries Rate of employees and contractors. The result showed that the Company group achieved the goal of “zero accident” since no accidents were reported in the past year.

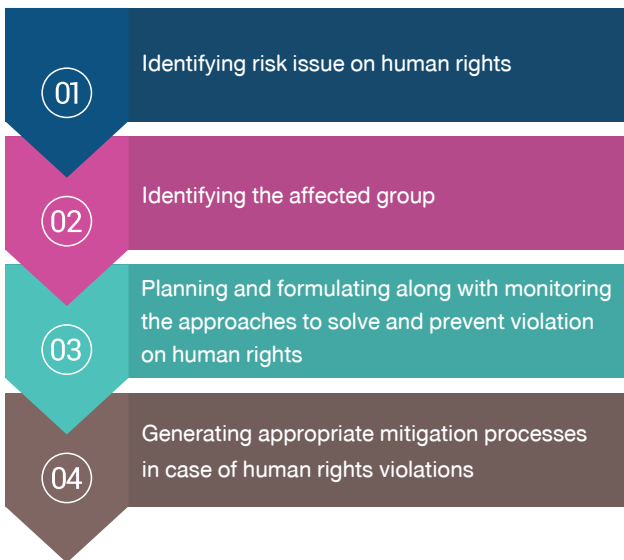
	2020		2021	
				
<b>Injury Rate (IR)</b>				
Employees	0	0	0	0
Contractors	0	0	0	0
<b>Occupational Disease Rate (ODR)</b>				
Employees	0	0	0	0
Contractors	0	0	0	0
<b>Absent Rate (AR)</b>				
Employees	0	0	0	0
Contractors	0	0	0	0
<b>High-Consequence Work-Related Injuries Rate</b>				
Employees	0	0	0	0
Contractors	0	0	0	0



# Human Rights

Sermsang Power Corporation PCL. and its subsidiaries have an ideology to conduct and operate the business with integrity by adhering to social responsibility and good governance to all groups of stakeholders. With awareness and emphasis on human rights issues throughout the supply chain, the Company and its subsidiaries commit to treat and take care of all groups of stakeholders in an equal manner in accordance with the Universal Declaration of Human Rights (UDHR), United Nations Guiding Principles on Business and Human Rights (UNGPs) as well as The International Labor Organization’s (ILO) Declaration on Fundamental Principles and Rights at Work. In order to express its intention to drive the operation towards human rights, the Company has established policies and approaches regarding human rights, which cover potential groups of people who may be affected. The Company thereby has an intention to prevent violation on human rights in all business activities including investments in any related businesses (merger, acquisition, and joint venture) as well as to create and maintain corporate culture in respecting human rights according to human rights policy, trainings for all employees on human rights policies and procedures, and reporting channels of human rights violations to support partners, and to inform stakeholders in order to have them practice in the same direction.

## Human Rights Due Diligence Process



## Performance

The Company has prepared a sustainability report for the first year. Therefore, some data information is incomplete such as issues concerning human rights risks assessment, impact assessment, remedial approaches, prevention and mitigation process, percentage of employees and number of hours training on human rights.

### Zero incidents of human rights violations



## Community Engagement and Social Development

The Company group attaches importance to business operations that are beneficial to the economic, environmental, and social as well as taking into consideration the potential impact of the Company's operation both directly and indirectly. The Company group has a strong determination to operate the business as a role model for the society (Good Corporate Citizen) for sustainable business operations aiming for steady growth. To achieve the goal of stable growth, the Company group needs to be recognized and supported by society and all stakeholders. The community is considered as one of the stakeholders of the Company, therefore, the Company has committed and determined to support the local community around the establishment to improve the quality of life of the people in the community, respond to the needs and expectations of the community, collaborate and coordinate to find solutions to solve community problems. In addition, the Company group is ready to commit its full capacity in cooperating with the government agencies and other stakeholders to drive forward the local communities around the Company's establishments to sustainably grow together with the Company.

### Goals and management approach

The Company group drives the organization along with sustainable community development, contributes to social development, enhance engagement with the community including other related stakeholders, as well as being open to listening to opinions. Together with supporting the development of community's quality of life and cooperating with government agencies and other organizations.

The Company group is committed to conducting business that is beneficial to the economic, environmental, and social; and strictly comply with all relevant rules and regulations. The Company is ready to grow while enhancing the quality of life of the community and protective the environment to move forward sustainably according to the code of conduct in the operation of the organization.

The goals for improving relationships with the communities within 2024 are zero complaints and incidents from local communities, projects or campaign that meets the expectations and demands, local communities survey at least once a year, and compatible communication channels for complaints or suggestions. This will reduce the Company's social and environmental impacts as well as enhance the quality of life of the local communities.



## Examples of projects and activities

- ⊗ Designing the Company's project site by taking into account the impact on the drainage system that may jeopardize agriculture and water consumption of the local community.
- ⊗ Collecting and giving grass clippings, weed residues from cuttings within the premise of the power plant areas to farmers in the communities surrounding the establishments for use in animals' husbandry or fertilizer making.
- ⊗ Giving scholarships to primary school students at Ban Phromthin School, Ban Wang Khon Khwang School, Khok Samrong in Lopburi Province.
- ⊗ Donating money to support Children's Day activity at Huai Pong Subdistrict Administrative Organization for children to enjoy themselves during Children's Day.
- ⊗ Supporting anti-drug local sports activity at the Wang Khon Khwang Subdistrict Administrative Organization
- ⊗ Providing playgrounds for communities around the establishment in Japan.

Zero complaints  
from the community

= 0



## Customer Privacy

Technology systems play an important role in the expansion of investment both domestically and internationally and business operations of Sermuang Power Corporation PCL. The Information technology system is one of the most important infrastructures of the organization that can enable an increase in the efficiency of the operations. In order to upgrade the cybersecurity management and information systems to meet international standards as well as build confidence among the stakeholders of the organization in terms of preventing the impact that may arise from the loss of important information of the Company or cyber-theft of information that may affect the reputation of the Company, the company has established policies and measures to prevent the leakage of important information as well as appropriate improvements, regulations, rules, and assessments of information security risks. The Company also operates its business in compliance with information technology laws, the Personal Data Protection Act B.E. 2562 (2019) to prevent personal data breaches. In the past year, the Company group has not been affected or received any complaints relating to cyber threats or issues concerning personal information.



# GRI Content Index



For the Materiality Disclosure Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the English version of the report.

GRI Standard	Disclosure	Page number(s)	SDGs	COHBP	Omission		
					Part Omitted	Reason	Explanation
GRI 101: Foundation 2016							
GRI 102: General Disclosures 2016							
	<b>Organizational Profile</b>						
	102-1	Name of the organization	1				
	102-2	Activities, brands, products, and services	7-8				
	102-3	Location of headquarters	15				
	102-4	Location of operations	8-9				
	102-5	Ownership and legal form	12				
	102-6	Markets served	10-11				
	102-7	Scale of the organization	10-11, 30, 57				
	102-8	Information on employees and other workers	57				
	102-9	Supply chain	15				
	102-10	Significant changes to the organization and its supply chain	1				
	102-11	Precautionary Principle or approach	37-41				
	102-12	External initiatives	42				
	102-13	Membership of associations	12				
	<b>Strategy</b>						
	102-14	Statement from senior decision-maker	2-3				
	<b>Ethics and Integrity</b>						
GRI 102: General Disclosure 2016	102-16	Values, principles, standards, and norms of behavior	4-6				
	<b>Governance</b>						
	102-18	Governance structure	32				
	102-19	Delegating authority	18, 32				
	102-20	Executive-level responsibility for economic, environmental, and social topics	18, 32				
	102-22	Composition of the highest governance body and its committees	32-34				
	102-23	Chair of the highest governance body	32				
	<b>Stakeholder Engagement</b>						
	102-40	List of stakeholder groups	22-23				
	102-41	Collective bargaining agreements	58				
	102-42	Identifying and selecting stakeholders	21				
	102-43	Approach to stakeholder engagement	22-23				
	102-44	Key topics and concerns raised	22-23				

GRI Standard	Disclosure	Page number(s)	SDGs	COHBP	Omission Part Omitted Reason Explanation
<b>GRI 102: General Disclosures 2016</b>					
<b>Reporting Practice</b>					
<b>GRI 102: General Disclosure 2016</b>	102-45	Entities included in the consolidated financial statements	1		
	102-46	Defining report content and topic Boundaries	1, 25-26		
	102-47	List of material topics	28, 29		
	102-48	Restatements of information	26		
	102-49	Changes in reporting	26		
	102-50	Reporting period	1		
	102-51	Date of most recent report	1		
	102-52	Reporting cycle	1		
	102-53	Contact point for questions regarding the report	1		
	102-54	Claims of reporting in accordance with the GRI Standards	1		
	102-55	GRI content index	68-72		
	102-56	External assurance	1, 68		

GRI Standard	Disclosure	Page number(s)	SDGs	COHBP	Omission Part Omitted Reason Explanation
<b>Material Topics</b>					
<b>GRI 200: Economic Standard Series</b>					
<b>Economic Performance</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	30		
	103-2	The management approach and its components	30		
	103-3	Evaluation of the management approach	30-31		
<b>GRI 201: Economic Performance 2016</b>	201-1	Direct economic value generated and distributed	30-31		COHBP 16 Community involvement
	201-2	Financial implications and other risks and opportunities due to climate change	40-41	SDG 13 Climate action	
	201-4	Financial assistance received from government	31		
<b>Indirect Economic Impacts</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	65		
	103-2	The management approach and its components	65		
	103-3	Evaluation of the management approach	66		
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1	Infrastructure investments and services supported	65-66		COHBP 16 Community involvement
<b>Anti-corruption</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	35		
	103-2	The management approach and its components	35		
	103-3	Evaluation of the management approach	36		
<b>GRI 205: Anti- corruption 2016</b>	205-2	Communication and training about anti-corruption policies and procedures	36	SDG 16 Peace, justice and strong institutions	
	205-3	Confirmed incidents of corruption and actions taken	36		



GRI Standard	Disclosure	Page number(s)	SDGs	COHBP	Omission	
					Part Omitted	Reason Explanation
<b>Material Topics</b>						
<b>GRI 300: Environmental Standard Series</b>						
<b>Energy</b>						
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	42-44			
	103-2	The management approach and its components	42-44			
	103-3	Evaluation of the management approach	45			
<b>GRI 302: Energy 2016</b>	302-1	Energy consumption within the organization	45	SDG 7 Affordable and clean energy SDG 12 Responsible consumption and production SDG 13 Climate action		
	302-3	Energy intensity	45			
<b>Water and Effluents</b>						
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	48			
	103-2	The management approach and its components	48			
	103-3	Evaluation of the management approach	48			
<b>GRI 303: Water and Effluents 2018</b>	303-1	Interactions with water as a shared resource	48	SDG 6 Clean water and sanitation SDG 12 Responsible consumption and production	COHBP 14 Community environmental impacts	
	303-2	Management of water discharge-related impacts	48			
	303-3	Water withdrawal	49	SDG 6 Clean Water and Sanitation		
	303-4	Water discharge	49			
	303-5	Water consumption	49	SDG 6 Clean Water and Sanitation		
<b>Biodiversity</b>						
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	53			
	103-2	The management approach and its components	53			
	103-3	Evaluation of the management approach	53			
<b>GRI 304 Biodiversity 2016</b>	304-2	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	53	SDG 15 Life on land	COHBP 14 Community environmental impacts	
<b>Emissions</b>						
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	46			
	103-2	The management approach and its components	46			
	103-3	Evaluation of the management approach	46-47			
<b>GRI 305: Emissions 2016</b>	305-1	Direct (Scope 1) GHG emissions	46-47	SDG 3 Good health and well-being SDG 12 Responsible consumption and production SDG 13 Climate action	COHBP 14 Community environmental impacts	
	305-2	Energy indirect (Scope 2) GHG emissions	46-47			
	305-3	Other indirect (Scope 3) GHG emissions	46-47			
	305-4	GHG emissions intensity	47	SDG 13 Climate action		
	305-5	Reduction of GHG emissions	47			

GRI Standard	Disclosure	Page number(s)	SDGs	COHBP	Omission		
					Part Omitted	Reason	Explanation
<b>Material Topics</b>							
<b>GRI 300: Environmental Standard Series</b>							
<b>Waste</b>							
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	50				
	103-2	The management approach and its components	50				
	103-3	Evaluation of the management approach	52				
<b>GRI 306: Waste 2020</b>	306-1	Waste generation and significant waste-related impacts	50	SDG 3 Good health and well-being SDG 12 Responsible consumption and production	COHBP 14 Community environmental impacts		
	306-2	Management of significant waste-related impacts	50				
	306-3	Waste generated	50, 52				
	306-4	Waste diverted from disposal	52				
	306-5	Waste directed to disposal	50-52				

GRI Standard	Disclosure	Page number(s)	SDGs	COHBP	Omission		
					Part Omitted	Reason	Explanation
<b>Material Topics</b>							
<b>GRI 400: Social Standard Series</b>							
<b>Employment</b>							
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	54				
	103-2	The management approach and its components	55				
	103-3	Evaluation of the management approach	58				
<b>GRI 401: Employment 2016</b>	401-1	New employee hires and employee turnover	56	SDG 3 Good health and well-being SDG 8 Decent work and economic growth	COHBP 5 Paid family and medical leave COHBP 6 Health Insurance COHBP 10 Job security		
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	58				
	401-3	Parental leave	58				
<b>Occupational Health and Safety</b>							
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	61				
	103-2	The management approach and its components	61				
	103-3	Evaluation of the management approach	63				
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1	Occupational health and safety management system	61	SDG 3 Good health and well-being SDG 8 Decent work and economic growth	COHBP 4 Health promotion and wellness COHBP 6 Health Insurance COHBP 12 Occupational health and safety COHBP 15 Social capital and cohesion		
	403-2	Hazard identification, risk assessment, and incident investigation	61				
	403-3	Occupational health services	61				
	403-4	Worker participation, consultation, and communication on occupational health and safety	61				
	403-5	Worker training on occupational health and safety	62				
	403-6	Promotion of worker health	63				
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	61				
	403-9	Work-related injuries	63				



GRI Standard	Disclosure	Page number(s)	SDGs	COHBP	Omission Part Omitted Reason Explanation
<b>Material Topics</b>					
<b>GRI 400: Social Standard Series</b>					
<b>Training and Education</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	54, 59		
	103-2	The management approach and its components	55, 59		
	103-3	Evaluation of the management approach	60		
<b>GRI 404: Training and Education 2016</b>	404-1	Average hours of training per year per employee	60	SDG 8 Decent work and economic growth	COHBP 15 Social capital and cohesion
	404-2	Programs for upgrading employee skills and transition assistance programs	59-60		
	404-3	Percentage of employees receiving regular performance and career development reviews	60		
<b>Non-discrimination</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	54		
	103-2	The management approach and its components	55		
	103-3	Evaluation of the management approach	55		
<b>GRI 406: Non- discrimination 2016</b>	406-1	Incidents of discrimination and corrective actions taken	55	SDG 8 Decent work and economic growth	COHBP 7 Equality, diversity and impartiality
<b>Human Rights Assessment</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	64		
	103-2	The management approach and its components	55, 64		
	103-3	Evaluation of the management approach	55, 64		
<b>GRI 412: Human Rights Assessment 2016</b>	412-1	Operations that have been subject to human rights reviews or impact assessments	64		
<b>Local Communities</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	65		
	103-2	The management approach and its components	65		
	103-3	Evaluation of the management approach	66		
<b>GRI 413: Local Communities 2016</b>	413-1	Operations with local community engagement, impact assessments, and development programs	65-66	SDG 11 Sustainable cities and communities	COHBP 16 Community involvement
<b>Customer Privacy</b>					
<b>GRI 103: Management Approach 2016</b>	103-1	Explanation of the material topic and its Boundary	67		
	103-2	The management approach and its components	55, 67		
	103-3	Evaluation of the management approach	55, 67		
<b>GRI 418: Customer Privacy 2016</b>	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	67		

Sermsang Power Corporation Public Company Limited 2021

Please respond to the survey by scanning the QR code or forwarding the survey back to Sermsang Power Corporation Public Company Limited at the address shown at the end of the booklet or by email [info@sermsang.co.th](mailto:info@sermsang.co.th)

1. Please specify your status in relation to SSP
  - Customers
  - Employees
  - Shareholders and Investors
  - Society
  - Business Partners
  - Supervisory Units
  - Communities around the Plants
  - Other (Please specify.....)
  
2. From which channel did you receive SSP Sustainability Report 2021
  - Annual General Shareholders Meeting
  - SSP Website
  - Sent directly by SSP
  - Seminar/Lecture/Exhibition
  - SSP's Employees
  - QR Code
  - Other (Please specify.....)
  
3. Objective of reading the Sustainability Report 2021
  - To gain information about SSP
  - To support investment decisions
  - For research and education purposes
  - Other (Please specify.....)
  
4. Which aspects is significant to SSP's sustainable development?
  - Economic (Please specify.....)
  - Environmental (Please specify.....)
  - Social (Please specify.....)
  
5. Do you think the significant aspects in SSP Sustainability Report 2021 have been addressed and disclosed in this report?
  - Yes
  - No (Please specify aspects that should have been included).....
  
6. Level of satisfaction with SSP Sustainability Report 2021
  - Completion of content
  - Significant aspects
  - Quality of the information disclosed
  - Use of language
  - Report layout
  - Overall satisfaction
  - Very satisfied
  - Satisfied
  - Neutral
  - Improvement
  
7. Suggestions for improvement of next year's Sustainability Report.....

Sermsang Power Corporation Public Company Limited appreciates your cooperation. The responses to the survey on this sustainability report will be used for the further improvement and development of Sermsang Power Corporation Plc sustainability report.



Scan QR Code to complete the survey

**Sermsang Power Corporation PLC.**

325/14 Lanlaung Rd, Mahanak Square, Dusit,  
Bangkok 10300 Thailand

Tel +66 2628 0991 - 2 / Fax +66 2 628 0993

E-MAIL: [info@sermsang.co.th](mailto:info@sermsang.co.th)

