

Part 1

Business Operations

1. Business Policy and Overview

1.1 Business Overview

CK Power Public Company Limited (the “Company” or “CKP”) was founded by CH. Karnchang Public Company Limited Group (“CH. Karnchang Group”), registered its incorporation on June 8, 2011 with its registered capital of Baht 1,000,000. CKP’s objective is to spearhead CH. Karnchang Group in focusing on investment in the production and distribution of electricity generated from various types of energy sources. The Company registered its conversion into a public company on February 6, 2013. Its ordinary shares were listed as listed securities and started trading on the Stock Exchange of Thailand (“Stock Exchange”) on July 18, 2013 with its registered capital of Baht 5,500 million, fully paid-up. On April 10, 2015, the Company registered its capital increase to Baht 9,240 million. At present, the Company’s registered and paid-up capital amounts to Baht 8,129 million.

The Company currently invests in companies operating the business of production and distribution of electricity in three types of power plants; namely, Hydroelectric Power Plant, Cogeneration Power Plant, and Solar Power Plant, divided into investments in a total of seven subsidiaries and associated companies, as follows:

- Investment in power plants under three subsidiaries:
 - 1) Nam Ngum 2 Power Company Limited (“NN2”); 46 percent owned by the Company via SouthEast Asia Energy Limited (“SEAN”). NN2 is the Company’s core company
 - 2) Bangpa-in Cogeneration Limited (“BIC”); 65 percent owned by the Company
 - 3) Bangkhengchai Company Limited (“BKC”); 100 percent owned by the Company
- Investment in power plants under four associated companies:
 - 1) Xayaburi Power Company Limited (“XPCL”); 37.5 percent owned by the Company
 - 2) Luang Prabang Power Company Limited (“LPCL”); 42 percent owned by the Company
 - 3) Chiangrai Solar Company Limited (“CRS”); 30 percent owned by the Company

- 4) Nakhon Ratchasima Solar Company Limited (“NRS”); 30 percent owned by the Company

1.2 Vision, Missions and Objectives

Vision: To be a leading power business company in Thailand and the ASEAN region, with efficient operation.

Missions: 1) To generate an optimal, stable and fair return for shareholders;
2) To be responsible to the environment, community and all stakeholders.

Objectives: The Company has a policy to expand its investments in the electricity production and distribution business generated from various types of energy sources in Thailand and the ASEAN region, with the objective to play a part in enhancing stability of the power sector of the country through its investments in variety of power projects, supported by strong capital base and cooperation among partnership alliances to maximize consistent and sustainable return to shareholders.

1.3 Significant Changes and Development

- 2011** - On June 8, 2011, the Company was registered for its incorporation with the registered capital of Baht 1,000,000, to be CH. Karnchang Group’s flagship company with a focus on investment in the business of production and distribution of electricity generated from various types of energy sources.
- 2012** - On May 10, 2012, the Company acquired additional 110,112,500 ordinary shares in SEAN from Bangkok Expressway Public Company Limited (BECL)¹, representing 16.7 percent of its registered capital, and as a result, the Company held a total of 361,168,999 shares in SEAN, representing 54.7 percent of its registered and fully paid-up capital.
- On June 26, 2012, the Company acquired ordinary shares in two companies operating in the business of solar power production and distribution from CH. Karnchang Public Company Limited (“CK”), as follows:
- 1) 2,342,498 shares in BKC, representing 100 percent of its registered and fully paid-up capital.
 - 2) 664,500 shares in NRS, representing 30 percent of its registered capital, 85.06 percent of which was paid-up.

¹ At present, Bangkok Expressway and Metro Public Company Limited (“BEM”).

- On August 31, 2012, the Company acquired additional 8,809,000 shares in SEAN from TEAM Consulting Engineering and Management Co., Ltd., representing 1.3 percent of its registered capital, thereby resulting in the Company's shareholding in SEAN totaling 369,977,999 shares, or 56 percent of its registered and fully paid-up capital.
- On December 26, 2012, the Company acquired from CK ordinary shares in two companies operating in the business of electricity production and distribution in Solar Power and Cogeneration Power, as follows:
 - 1) 875,250 shares in CRS, representing 30 percent of its registered capital, 95.01 percent of which was paid-up.
 - 2) 63,019,999 shares in BIC, representing 46 percent of its registered and fully paid-up capital.
- 2013** - On January 2, 2013, the Company acquired additional 26,029,999 shares in BIC, representing 19 percent of its registered capital, from Bangpa-in Land Development Co., Ltd., and as a result, the Company held a total of 89,049,998 shares in BIC, or 65 percent of BIC's registered and fully paid-up capital.
- On January 11, 2013, the Company decreased its registered capital from Baht 9,200 million to Baht 3,066.7 million, divided into 306.7 million ordinary shares at the par value of Baht 10 each. The capital decrease was made to return the decreased capital to the shareholders in proportion to their shareholding percentage. Subsequently, in February 2013, the Company increased its registered capital to Baht 4,600 million for sale to the existing shareholders in proportion to their shareholding percentage, and reduce the par value per share from Baht 10 each to Baht 5 each. Concurrently, the Company also increased its registered capital from Baht 4,600 million to Baht 5,500 million by issuance of new 180 million ordinary shares at the par value of Baht 5 each for public offering.
- On February 6, 2013, the Company registered its conversion into a public company and change of its name to CK Power Public Company Limited.
- On July 18, 2013, the Company started trading its ordinary shares on the Stock Exchange of Thailand.
- 2014** - On April 22, 2014, the 2014 Annual Ordinary General Meeting of Shareholders resolved to approve for the Company to transfer the share premium in the amount of Baht 170 million to offset the Company's deficit in the Company's separate financial statements.
- On October 28, 2014, the Company's Extraordinary General Meeting of Shareholders No. 1/2014 resolved to approve BIC to

execute a connected transaction for engagement of CK, the Company's major shareholder, as EPC Contractor for the construction of the Bangpa-in Cogeneration Power Project 2, with a total value not exceeding Baht 4,310 million.

- 2015** - On April 24, 2015, the Company made the dividend payment from the operating results for 2014 at the rate of Baht 0.1 per share in the total amount of Baht 110 million, representing the first dividend payment of the Company.
- On May 29, 2015, the Company decreased the par value per share from Baht 5 to Baht 1 and increased the Company's registered capital by Baht 3,740 million, the total registered capital then amounted to Baht 9,240 million, divided into:
 - 1) 1,870 million newly issued ordinary shares for offering for sale to the existing shareholders in proportion to their shareholding percentage (Rights Offering), with the result of the registered and paid-up capital amounting to Baht 7,370 million.
 - 2) 1,870 million ordinary shares to accommodate the exercise of the right to convert the warrants to purchase the Company's newly issued ordinary shares ("CKP-W1") in the amount of 1,870 million units.
 - On June 4, 2015, 1,870 million newly issued ordinary shares started trading on the Stock Exchange.
 - On June 9, 2015, 1,870 million units of CKP-W1 started trading on the Stock Exchange.
 - On June 9, 2015, the Company acquired 805,830,000 shares in XPCL from CK representing 30 percent of its registered capital, in the total amount of approximately Baht 4,344 million.
- 2016** - On April 19, 2016, the Company's 2016 Annual Ordinary General Meeting of Shareholders resolved to approve as follows:
- (1) Approved the Company to issue and offer for sale the debentures in the total amount not exceeding Baht 10,000 million or equivalent in other currency.
 - (2) Approved NN2 to execute a connected transaction for engagement of CH. Karnchang (Lao) Co., Ltd. ("CHK") for the upgrade of voltage and the construction of the 230/500 kV Nabong Substation, in the total amount of Baht 799.85 million and USD 39.11 million (exclusive of value added tax), in order to accommodate the power transmission from various projects having the power purchase agreements with the Electricity Generating Authority of Thailand ("EGAT"). The construction was scheduled to be completed in 2018.

- On May 16, 2016, the Company made the dividend payment from the operating results for 2015 at the rate of Baht 0.02 per share, in the total amount of Baht 164.4 million.
 - On June 17, 2016, the Company issued and offered for sale the debentures No. 1/2016 to institutional investors and/or high net worth investors, in the total amount of Baht 4,000 million, with a maturity of three years, at the interest rate of 4 percent per annum. The debentures were name-registered, unsubordinated, unsecured debentures, with debentureholders' representative and the issuer's right to early redemption. The Company redeemed the debentures on June 18, 2018.
 - On September 14, 2016, NN2 entered into the long-term loan agreement with the lending financial institutions for refinancing of existing long-term loans and additional financing for the upgrade and the construction of the Nabong Substation. This achievement resulted in a decrease of NN2's financial costs and enhanced NN2's liquidity.
- 2017**
- On May 18, 2017, the Company made the dividend payment from the operating results for 2016 at the rate of Baht 0.06 per share, in the total amount of Baht 442.2 million.
 - On June 29, 2017, the Bangpa-in Cogeneration Power Plant 2 commenced its commercial operation. The plant has an installed capacity of 120 MW, subject to the Power Purchase Agreement with EGAT in the amount of 90 MW for a period of 25 years from the Commercial Operation Date and distributes the remaining electricity to industrial operators in the Bangpa-in Industrial Estate.
 - On July 25, 2017, the Extraordinary General Meeting of Shareholders of NN2 No. 1/2017 resolved to approve NN2 to issue and offer for sale the debentures for debt repayment to financial institutions in the amount and the outstanding value of the debentures not exceeding the existing long-term loan obligations of NN2 owed to the financial institutions, in Baht currency and/or its equivalent in foreign currency, whereby the debentures can be issued and offered for sale in one or several series, on a single or several occasions.
 - In July 2017, BIC called for the payment of the remaining ordinary share for capital increase for investment in the Bangpa-in Cogeneration Power Plant 2, which was fully paid-up, and as a result, BIC's current registered capital was fully paid-up, at Baht 2,705 million.
 - On October 5, 2017, NN2 issued and offered for sale the name-registered, unsubordinated, unsecured debentures No. 1/2017, with debentureholders' representative, to institutional investors and high net worth investors, in the amount of Baht 6,000 million, divided into:

- Baht 1,000 million Debentures with a maturity of three years at the interest rate of 2.59 percent per annum;
- Baht 1,400 million Debentures with a maturity of seven years at the interest rate of 3.48 percent per annum; and
- Baht 3,600 million Debentures with a maturity of ten years at the interest rate of 3.69 percent per annum.

NN2 received a corporate rating of “A/Stable Outlook” and received an issue rating of “A-/Stable Outlook” from TRIS Rating Co., Ltd. (“TRIS Rating”).

- 2018**
- On March 30, 2018, NN2 issued and offered for sale the name-registered, unsubordinated, unsecured, amortizing repayment debenture No. 1/2018, with debentureholders’ representative and the issuer’s right to early redemption, in the amount of Baht 3,000 million with a maturity of 12 years at the rate of 3.98 percent per annum. NN2 received a corporate rating of “A/Stable Outlook” and an issue rating of “A-/Stable Outlook” from TRIS Rating. NN2 used the proceeds from the issuance to repay the USD-loan to reduce the financial cost.
 - On April 10, 2018, the 2018 Annual Ordinary General Meeting of Shareholders of the Company resolved to approve the acquisition of shares in XPCL representing 7.5 percent of XPCL’s registered capital in the total amount of approximately Baht 2,065 million from BEM, as well as approving the share payment in proportion to its shareholding percentage in XPCL until completion of the construction of the Xayaburi Hydroelectric Power Project, in the amount of approximately Baht 399.2 million.
 - On May 8, 2018, the Company made the dividend payment from the operating results for 2017 at the rate of Baht 0.0225 per share in the total amount not exceeding Baht 165.8 million, representing 57.9 percent of the net profit under the separate financial statements.
 - On May 28, 2018, the Board of Directors’ meeting of BKC resolved to approve the investment in six Solar Rooftop and Solar Farm Projects for production and distribution of electricity to the private-sector operators, with the total installed capacity of 6.7 MW. The construction commenced from the third quarter of 2018 and was expected to gradually start the production and commercial distribution of electricity in 2019.
 - On June 18, 2018, the Company issued and offered for sale the name-registered, unsubordinated, unsecured debentures No.1/2018, without debentureholders’ representative, to institutional investors, in the amount of Baht 6,500 million, divided into:
 - Baht 4,000 million Debentures with a maturity of three years at the interest rate of 2.56 percent per annum and

- Baht 2,500 million Debentures with the issuer's right to early redemption with a maturity of ten years at the interest rate of 4.06 percent per annum

The Company received a corporate rating of "A/Stable Outlook" and an issue rating of "A-/Stable Outlook" from TRIS Rating. The Company utilized the proceeds from the issuance and offering for sale of such debentures to repay the debentures No. 1/2016 issued and offered for sale in 2016 in the amount of Baht 4,000 million and to pay for the shares in XPCL additionally acquired by the Company from BEM representing 7.5 percent in the amount of Baht 2,065 million. The remainder of the proceeds was to be used for capital increase in XPCL which would gradually call for the payment until completion of the construction of the project.

- In August 2018, NN2 completed the upgrade and construction of the Nabong Substation to accommodate transmission of electricity from various projects having the power purchase agreements with EGAT.
- On October 19, 2018, the Company received an "Excellent" CG Score rating from Corporate Governance Report of Thai Listed Companies 2018 published by the Thai Institute of Directors Association.
- During November to December 2018, NN2 Hydroelectric Power Plant underwent the Partial Overhaul according to plan.
- 2019** - NN2 entered into the Nabong Substation Lease Agreement with the Government of the Lao PDR after completion of the upgrade of the voltage and the construction of the Nabong Substation, effective from January 1, 2019.
- On February 8, 2019, TRIS Rating affirmed NN2's corporate rating of "A/Stable Outlook" and also upgraded NN2's issue rating for all debenture series to "A/Stable Outlook".
- BKC invested in six Solar Rooftop and Solar Farm Power Plants, as follows:
 - Solar Rooftop Power Plant in Amphoe Phachi, Phra Nakhon Si Ayutthaya Province ("Phachi Solar Power Plant") with the installed capacity of 0.89 MW, commenced electricity distribution to the private-sector operator in February 2019.
 - Solar Rooftop Power Plant in Amphoe Banglen, Nakhon Pathom Province ("Banglen Solar Power Plant") with the installed capacity of 0.97 MW, commenced electricity distribution to the private-sector operator in May 2019.
 - Solar Rooftop Power Plant in Amphoe Sampran, Nakhon Pathom Province ("Phutthamonthon Sai 5 Solar Power Plant") with the installed capacity of 0.97 MW, commenced electricity distribution to the private-sector operator in June 2019.

- Solar Rooftop Power Plant in Amphoe Mueang Samut Sakhon, Samut Sakhon Province (“Mahachai Solar Power Plant”) with the installed capacity of 0.72 MW, commenced electricity distribution to the private-sector operator in June 2019.
 - Solar Rooftop Power Plant in Amphoe Krathum Ban, Samut Sakhon Province (“Krathum Ban Solar Power Plant”) with the installed capacity of 0.51 MW, commenced electricity distribution to the private-sector operator in July 2019.
 - Solar Farm Power Plant in Amphoe Khlong Preng, Chachoengsao Province (“Khlong Preng Solar Power Plant”) with the installed capacity of 2.67 MW, commenced electricity distribution to the private-sector operator in September 2020.
- On March 7, 2019, NN2 issued and offered for sale the name-registered, unsubordinated, unsecured, debentures No. 1/2019, with debentureholders’ representative, in the amount of Baht 6,000 million divided into:
- Baht 3,200 million Amortized Debentures with a maturity of three years at the interest rate of 3.18 percent per annum;
 - Baht 800 million Debentures with a maturity of four years at the interest rate of 3.44 percent per annum; and
 - Baht 2,000 million Debentures with the issuer’s right to early redemption with a maturity of eight years at the interest rate of 3.88 percent per annum.
- NN2 utilized the proceeds from the issuance and offering for sale of the debentures to repay all outstanding loans from the financial institutions to reduce the financial cost.
- On April 11, 2019, TRIS Rating affirmed the Company’s corporate rating of “A/Stable Outlook”, and also affirmed the Company’s issue rating for unsubordinated and unsecured debentures of “A-/Stable Outlook”.
- On May 15, 2019, the Company purchased additional shares in SEAN accounting for 5.33 percent from PT Holding Limited, totaling Baht 681.5 million, with SEAN being the major shareholder in NN2, a subsidiary engaging in the Company’s main business, thereby resulting in an increase in the Company’s shareholding percentage in SEAN from 56.0 percent to 61.33 percent of the registered capital and an increase in its proportion of indirect investment in NN2 from 42.0 percent to 46.0 percent.
- On May 21, 2019, the Company paid the dividend from the operating results of the year 2018 at the rate of Baht 0.0280 per share, in the total amount of Baht 206.4 million, representing the dividend payment rate of 85.7 percent of the net profit under the separate financial statements.
- On June 2, 2019, Bangpa-in Cogeneration Power Plant 1 underwent the Major Overhaul according to plan.

- On June 30, 2019, 594.2 million shares were exercised under CKP-W1, equivalent to Baht 3,565.4 million. The Company registered the capital increase on July 1, 2019, and after the capital increase registration, the Company's registered capital increased to Baht 7,964.2 million.
- On September 30, 2019, there were 165.1 million shares exercised under CKP-W1, equivalent to Baht 990.9 million. The Company registered the capital increase on October 1, 2019, and after the capital increase registration, the Company's registered capital increased to Baht 8,129.4 million.
- On October 25, 2019, the Company received an "Excellent" CG Score rating from Corporate Governance Report of Thai Listed Companies 2019 published by the Thai Institute of Directors Association.
- On October 29, 2019, Xayaburi Hydroelectric Power Plant commenced the commercial operation according to schedule specified in the Power Purchase Agreement with EGAT. The plant has installed capacity of 1,285 MW, 1,220 MW of which distributed to EGAT and 60 MW of which distributed to Electricite du Laos.

1.4 Significant Development in 2020

1.4.1 CKP

- On April 28, 2020, TRIS Rating affirmed the Company's corporate rating of "A/Stable Outlook" and also affirmed the Company's issue rating for unsubordinated and unsecured debentures of "A-/Stable Outlook".
- On May 12, 2020, the Company paid the interim dividend from the operating results of the year 2019 due to the postponement of the 2020 Annual Ordinary General Meeting of Shareholders' from the COVID-19 pandemic situation. The dividend payment was made at the rate of Baht 0.0300 per share, in the total amount of Baht 243.9 million, representing the dividend payment rate of 42.8 percent of the net profit under the separate financial statements.
- On May 28, 2020, the last exercise date of CKP-W1. The Company registered the capital increase on May 29, 2020. After the capital increase registration, the Company's paid-up capital and share premium increased to Baht 8,129.4 million and Baht 13,319.2 million, respectively.
- On May 28, 2020, the Company became a member of the United Nations Global Compact (UNGC) Thailand to operate its business to support UNGC's principles of human rights, labor, environment and anti-corruption. Moreover, the Company aims to operate its business to achieve United Nations Sustainable Development Goals

(UNSDGs). At present, 8 out of 17 goals of UNSDGs have already been embedded into the Company's business strategy.

- On June 19, 2020, the Company secured Baht 4,000 million committed facilities from a financial institution for business expansion and backup liquidity management. As of December 31, 2020, the credit facility had not been used.
- On August 3, 2020, the 2020 Annual Ordinary General Meeting of Shareholders of the Company approved the extension of credit limit for issuance and offering of debentures to not exceeding Baht 20,000 million from the previous credit limit of not exceeding Baht 10,000 million. The debentures would be the source of fund for business expansion and to enhance the Company's ability to manage liquidity.
- On September 23, 2020, the Company received Asian Power Awards 2020 in Silver Label under 2 categories, namely:
 - o Natural Gas-fired Power Project of the Year
 - o Environmental Upgrade of the Year – Thailand

The Awards recognized the Company for its development of project and innovation to reduce the use of natural resource, minimize the environmental and social impacts, and achieve cost savings from reduction in electricity use.

- On November 11, 2020, the Company was included in the Thailand Sustainability Investment or THSI list of 2020 by the Stock Exchange of Thailand, reflecting the Company's intent to operate a sustainable business that supports environment, community, and good corporate governance.
- On November 19, 2020, the Company acquired shares in Luang Prabang Power Company Limited ("LPCL") accounting for 42 percent of LPCL's registered capital from PT Sole Co., Ltd., totaling Baht 12.82 million, for feasibility study and development of the Luang Prabang Hydroelectric Power Project in Luang Prabang Province, the Lao PDR.
- On November 19, 2020, the Company received "Excellent" Corporate Governance (CG) score under the Corporate Governance Report of Thai Listed Companies 2020 published by Thai Institute of Directors Association. This has been the Company's 3rd consecutive year of achieving such score.
- On November 25, 2020, the Company issued and offered for sale the name-registered, unsecured, unsubordinated debentures No.1/2020 with debentureholders' representative, in the amount of Baht 4,000 million. The Company plans to use the issuance proceeds to rollover

of the debentures maturing in the second quarter of 2021, to acquire assets or invest in business and to use as working capital. The debentures were divided into series; namely:

- Baht 1,000 million Debentures with a maturity of two years at the interest rate of 2.31 percent per annum;
 - Baht 1,500 million Debentures with a maturity of three years at the interest rate of 2.62 percent per annum; and
 - Baht 1,500 million Debentures with the issuer's right to early redemption and a maturity of seven years at the interest rate of 3.76 percent per annum.
- On December 8, 2020, the Company won the IR Magazine Awards 2020 South East Asia in the category of Best Crisis Management. The award recognized the achievement of Xayaburi Hydroelectric Power Plant in engaging with its stakeholders to foster a clear understanding of how the power plant manages its electricity production in conjunction with its water and environmental resource management system.

1.4.2 NN2

- On February 21, 2020, TRIS Rating affirmed NN2's corporate rating of "A/Stable Outlook" and also affirmed NN2's issue rating for all debentures of "A/Stable Outlook".
- On March 5, 2020, NN2 issued and offered for sale the name-registered, unsecured, unsubordinated debentures No.1/2020 in a Private Placement transaction to rollover the maturing debentures and to reduce finance cost. The debentures have interest rate of 2.45 percent per annum with a maturity of five years in the total amount of Baht 600 million.
- On August 7, 2020, NN2 secured Baht 1,000 million committed facilities from a financial institution for backup liquidity management. As of December 31, 2020, the credit facility had not been drawn.
- On September 11, 2020, TRIS Rating affirmed NN2's corporate rating of "A/Stable Outlook" and also affirmed NN2's issue rating for all debentures of "A/Stable Outlook".
- On September 30, 2020, NN2 issued and offered for sale the name-registered, unsecured, unsubordinated debentures No.2/2020 with debentureholders' representative in the amount of Baht 1,000 million to rollover the maturing debentures and to reduce finance cost, divided into:
- Baht 400 million Debentures with a maturity of three years at the interest rate of 3.20 percent per annum; and

- Baht 600 million Debentures with a maturity of five years at the interest rate of 3.60 percent per annum.

1.4.3 BKC

- In September 2020, Khlong Preng Solar Power Plant, the solar farm under BKC investment, started the electricity distribution to a private-sector operator.

1.5 Shareholding Structure

1.5.1 Policy on Operation Division of Group Companies

The Company operates its business as a holding company by investing in the companies, which operate the business of production and distribution of electricity generated from various types of energy. The Company's core revenue under the Company's separate financial statements is from dividends received from investments in subsidiaries and associated companies.

The Company has a mechanism in place to supervise operations of its subsidiaries and associated companies in a form of Shared Service Center, which performs work as if it were a work unit of such subsidiaries and associated companies, thereby enabling the Company to establish a standardized operation procedures with segregation of duties and appropriate internal control. Furthermore, the Shared Service Center enable the Company to enhance employee's specialized expertise to ensure more efficient operation and more effective management.

1.5.2 Shareholding Structure of the Company Group

The Company's total investment value in companies operating the business of production and distribution of electricity, which is the Company's core business, is at 100 percent, which is in accordance with the criteria for maintaining the status of listed companies of holding companies pursuant to the Regulations of the Stock Exchange of Thailand Re: Listing of Ordinary Shares or Preferred Shares as Listed Securities B.E. 2558 (2015). The details of the shareholding structure of the Company Group are as follows:

Group of Companies Operating Core Business	Nature of Business	Shareholding Percentage (%)	Other Shareholders
SouthEast Asia Energy Limited	Investment in hydroelectric power production business	61.33%	<ul style="list-style-type: none"> ▪ RATCH Group Public Company Limited 33.33% ▪ Shlapak Development Company Limited 5.33%

Group of Companies Operating Core Business	Nature of Business	Shareholding Percentage (%)	Other Shareholders
Nam Ngum 2 Power Company Limited ²	Production and distribution of electricity from hydroelectric power	46.00% ³	<ul style="list-style-type: none"> ▪ SouthEast Asia Energy Limited 75.00% ▪ EDL - Generation Public Company 25.00%
Bangpa-in Cogeneration Limited	Production and distribution of electricity and steam from the cogeneration system	65.00%	<ul style="list-style-type: none"> ▪ Global Power Synergy Public Company Limited 25.00% ▪ Industrial Estate Authority of Thailand 8.00% ▪ Other minority shareholders 2.00%
Bangkhenchai Company Limited	Production and distribution of electricity from the solar power	100.00%	-
Xayaburi Power Company Limited	Production and distribution of electricity from hydroelectric power	37.50%	<ul style="list-style-type: none"> ▪ Natee Synergy Company Limited 25.00% ▪ EDL - Generation Public Company 20.00% ▪ Electricity Generating Public Company Limited 12.50% ▪ PT Sole Company Limited 5.00%
Luang Prabang Power Company Limited	Production and distribution of electricity from hydroelectric power	42.00%	<ul style="list-style-type: none"> ▪ PT Sole Company Limited 38.00% ▪ CH. Karnchang Public Company Limited 10.00% ▪ Petro Vietnam Power Corporation 10.00%
Nakhon Ratchasima Solar Company Limited	Production and distribution of electricity from the solar power	30.00%	Solar United Network Thailand I Ltd. 70.00%
Chiangrai Solar Company Limited	Production and distribution of electricity from the solar power	30.00%	Solar United Network Thailand II Ltd. 70.00%
CKP Solar Limited*	Development of electricity production business of various types	100.00%	-

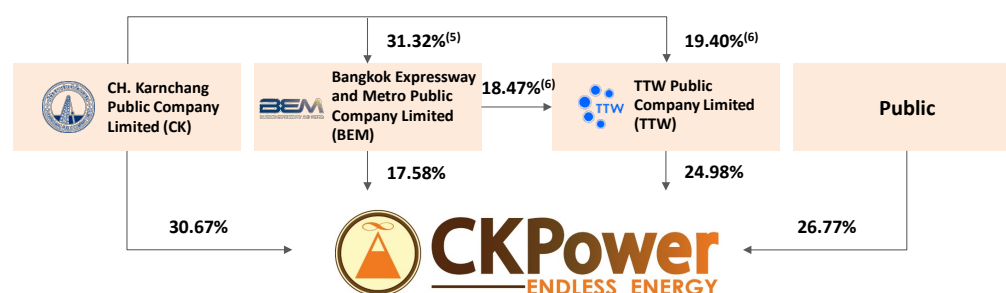
² Core company of CKP.³ Calculated based on SEAN's shareholding percentage by CKP.

Group of Companies Operating Core Business	Nature of Business	Shareholding Percentage (%)	Other Shareholders
Vis Solis Limited*	Development of electricity production business of various types	100.00%	-
Helios Power Limited*	Development of electricity production business of various types	100.00%	-
Apollo Power Limited*	Development of electricity production business of various types	100.00%	-
Sole Power Limited*	Development of electricity production business of various types	100.00%	-

Remark: * Not in operation.

1.6 Relationship with Major Shareholders

The Company's shareholding structure and percentages as at December 30, 2020, which was the Company's most recent closing date of the share register⁴, were as follows:



The Company's three major shareholders comprise CK (30.67 percent), BEM (17.58 percent), and TTW (24.98 percent), all of which, including the Company, are deemed to be in CH. Karnchang Group.

⁴ Source: The Thailand Securities Depository Co., Ltd.

⁵ Shareholding proportion (%) of BEM as at June 26, 2020.

⁶ Shareholding proportion (%) of TTW as at September 3, 2020.

2. Nature of Business Operations

The Company operates its core business as a holding company, engaging in production and sales of electricity from various types of energy, both in Thailand and overseas. The Company's core revenue as shown in the consolidated financial statements is derived from revenue from sales of electricity and steam (including electricity tariff adders) and project management income. As at December 31, 2020, the Company has the total installed capacity of 2,167 MW. The Company classifies its investments in the electricity production and distribution business into three business sectors as follows:

1. Hydroelectric Power Plant:
 - Nam Ngum 2 Hydroelectric Power Plant
 - Xayaburi Hydroelectric Power Plant
2. Cogeneration Power Plant:
 - Bangpa-in Cogeneration Power Plant 1
 - Bangpa-in Cogeneration Power Plant 2
3. Solar Power Plant:
 - Bangkhenchai Solar Power Plant
 - Phachi Solar Power Plant
 - Banglen Solar Power Plant
 - Phutthamonthon Sai 5 Solar Power Plant
 - Mahachai Solar Power Plant
 - Krathum Ban Solar Power Plant
 - Khlong Preng Solar Power Plant
 - Nakhon Ratchasima Solar Power
 - Chiangrai Solar Power Plant

Revenue Breakdown during 2018 – 2020

Unit: Million Baht

Revenue	Installed Capacity (MW)	Operated by	% of Shareholding	2018	% of Total Revenue	2019	% of Total Revenue	2020	% of Total Revenue
<u>Revenue from sales of electricity and steam</u>									
Hydroelectric power plant	615.0	SEAN	61.3%	3,949.3	43.3%	3,048.0	32.9%	1,716.6	22.6%
Cogeneration power plants	237.5	BIC	65.0%	4,864.6	53.3%	5,030.2	54.2%	4,652.6	61.3%
Solar power plant	14.7	BKC	100.0%	136.1	1.5%	144.8	1.6%	157.8	2.1%
Total revenue from sales of electricity and steam				8,949.9	98.1%	8,223.0	88.7%	6,527.0	86.1%
<u>Share of profit (loss) from investments in jointly controlled entities and associated companies</u>									
Hydroelectric power plant	1,285.0	XPCL	37.5%	(33.7)	(0.4%)	392.2	4.2%	366.7	4.8%
Solar power plant	6.0	NRS	30.0%	23.5	0.3%	16.9	0.2%	15.9	0.2%
Solar power plant	8.0	CRS	30.0%	16.9	0.2%	24.0	0.3%	24.8	0.3%
Total share of profit from investments in jointly controlled entities and associated companies				6.7	0.1%	433.1	4.7%	407.4	5.4%
<u>Other income</u>									
Project management income	The Company			119.9	1.3%	153.9	1.7%	168.1	2.2%
Interest income and other income*	The Company and its subsidiaries			45.0	0.5%	463.3	5.0%	482.4	6.4%
Total other income				164.9	1.8%	617.2	6.7%	650.5	8.6%
Total revenue				9,121.5	100.0%	9,273.3	100.0%	7,584.9	100.0%

Remarks: * Excluding foreign exchange gain

2.1 Hydroelectric Power Business

The power plants in this sector comprise:

- Nam Ngum 2 Hydroelectric Power Plant
- Xayaburi Hydroelectric Power Plant

2.1.1 Products or Services of Hydroelectric Power Business

The Nam Ngum 2 Hydroelectric Power Plant

The Company holds shares in Nam Ngum 2 Power Company Limited (“NN2”), representing 46 percent of the registered and paid-up capital (by investment via SouthEast Asia Energy Limited), which is a company registered in the Lao People’s Democratic Republic (“Lao PDR”), and is awarded the concession from the Government of the Lao PDR for the design, development, construction and operation of Nam Ngum 2 Hydroelectric Power Plant for a period of 25 years from the Commercial Operation Date.

The Nam Ngum 2 Hydroelectric Power Plant is located on the Nam Ngum River between Phou Xay and Phou Houat, Xayasomboun Province, Lao PDR, 35 kilometers northeast and upstream of Nam Ngum 1 Hydroelectric Power Plant, and 90 kilometers from Vientiane, the capital city of Lao PDR. The power plant has an installed capacity

of 615 MW and achieved its Initial Operation Date (“IOD”) on March 26, 2011, and thereafter the Commercial Operation Date (“COD”) on January 1, 2013. All electricity generated shall be sold to the Electricity Generating Authority of Thailand (“EGAT”) pursuant to the Power Purchase Agreement for a period of 25 years from the Commercial Operation Date.

Revenue from sales of electricity of Nam Ngum 2 Hydroelectric Power Plant

The Power Purchase Agreement determines the Annual Supply Target of 2,310 GWh (“million units”) to be purchased by EGAT, divided into:

- (a) Primary Energy (“PE”): 2,218 GWh per year, with the production capacity not exceeding 16 hours per day, the payments for which will be made in Thai Baht and USD.
- (b) Secondary Energy (“SE”): 92 GWh per year. This refers to the electrical energy generated only during August, September and October each year, all payments for which will be made in Thai Baht.
- (c) Excess Energy (“EE”) is the excess electricity generated when the volume of water exceeds the forecast, thereby, in such month, enabling the power plant to generate electricity in excess of the target designated in (a) and (b) as declared to EGAT in advance. The excess electricity will be considered the Excess Energy, all payments for which will be made in Thai Baht.

In addition, if electricity can be generated in excess of the designated target of PE or SE per year as determined in the Agreement, such Excess Energy may be accumulated in the Reserve Account, which may be utilized in the future in any year in which the project cannot generate and sell electricity to EGAT to meet the target as specified in the Power Purchase Agreement. The Reserve Account will be settled every 10 years, on three occasions, namely, in 2022, 2032, and the year ending the Power Purchase Agreement.

In case the water volume in the reservoir is low to the extent that it cannot generate electricity to meet the volume equivalent to PE or SE per year as determined in the Agreement, the Nam Ngum 2 Hydroelectric Power Plant can accumulate the electricity units which have not yet been produced to be added in the electricity volume to be produced in the following year.

Xayaburi Hydroelectric Power Plant

The Company holds shares in Xayaburi Power Company Limited (“XPCL”), representing 37.5 percent of XPCL’s registered and paid-up capital. XPCL is a company registered in the Lao PDR and is awarded the concession from the Government of the Lao PDR for the design, development, construction and operation of the Xayaburi Hydroelectric Power Plant for a period of 31 years from the Commercial Operation Date.

The Xayaburi Hydroelectric Power Plant is a large run-of-river hydropower plant on the Mekong River, with its construction designed by the hydroelectric power engineering model in order to avoid, prevent and minimize environmental and social impacts. Such design includes fishery resource preservation, sediment flushing, navigation log, together with erosion prevention, and water quality preservation. With respect to the plant safety, the large-sized spillway gates and sediment routing gates have been designed and constructed to effectively tolerate earthquake and natural disasters. In addition, machinery and equipment with the state-of-the-art technology from the high expertise and world-class manufacturers have been selected for electricity production.

The Xayaburi Hydroelectric Power Plant of a run-of-river type, which does not require high water head level. The plant’s volume of water outflow is equivalent to the water intake each day, which is different from the Nam Ngum 2 Hydroelectric Power Plant, a storage-dam type. The power plant is located entirely within the boundary of the Lao PDR, on the Mekong downstream, approximately 80 kilometers south of Luang Prabang Province, and approximately 160 kilometers from Amphoe Chiang Khan, Loei Province, Thailand, with the commencement of its commercial operations on October 29, 2019. Its installed capacity is 1,285 MW, 1,220 MW of which shall be sold to EGAT under the Power Purchase Agreement for 29 years from the Commercial Operation Date; and 60 MW of which shall be sold to Electricité du Laos (“EdL”) under the Power Purchase Agreement between EdL and XPCL, for the period equal to the concession period granted from the Government of the Lao PDR.

Revenue from sales of electricity of the Xayaburi Hydroelectric Power Plant

The Power Purchase Agreement determines the Annual Supply Target of 5,709 GWh to be purchased by EGAT, divided into:

- (a) Primary Energy (PE): 4,299 GWh per year, with the production capacity not exceeding 16 hours per day on Monday to Saturday. The payments for PE shall be made in Thai Baht and USD.
- (b) Secondary Energy (SE): 1,410 GWh per year, with the production capacity not exceeding 5.35 hours on Monday to Saturday only and not exceeding 8 hours on Sunday. All payments for SE shall be made in Thai.

Moreover, if the volume of water exceeds the forecast, Excess Energy (EE) can be produced. All payments for EE are made in Thai Baht

2.1.2 Marketing and Competition in Hydro Power Business

The hydroelectric power plant development relies on the suitability of the geographical locations. Countries in ASEAN region like the Lao PDR, Cambodia, Myanmar, including the People's Republic of China, have high potential for development of such projects for sale of the generated electricity to Thailand.

According to Thailand Power Development Plan 2018-2037 or PDP 2018, in April 2019, Thailand jointly executed the Memorandum of Understanding ("MOU") for cooperation in the development and sale of the electric power to Thailand and neighboring countries, as follows:

- The Lao PDR, 9,000 MW, without specifying the end of the MOU term
- Myanmar, without specifying the power purchase volume, and with the MOU term until December 31, 2020
- Cambodia, without specifying the power purchase volume nor specifying the end of the MOU term

Based on the Memorandum of Understanding between Thailand and the Lao PDR, EGAT currently made the total power purchase of approximately 5,936 MW.

The Company is confident in its competitiveness in hydroelectric power business through experience and expertise of its personnel in the development of the large-scale hydroelectric power plants, as well as through its ability to manage cooperation across companies within the

group, which help ensuring that construction is under control within the specified time, budget, and scheduled Commercial Operation Date.

2.1.3 Supply of Products or Services in Hydroelectric Power Business

Power Generation by Hydroelectric Power Plants

The Nam Ngum 2 Hydroelectric Power Plant is a storage dam, which impounds water in a reservoir, constructed with the water storage level higher than the powerhouse. When water is released from the water tunnels, the immense pressure of water in the tunnels will drive the turbine to spin at high velocity, and the turbine shaft mounted to the shaft of the generator will rotate the enclosed generator and hence produce electricity.

The powerhouse has been installed with three vertical Francis Turbines (reaction turbine type), which are suitable for hydropower plants with moderate water level such as Nam Ngum 2 Hydroelectric Power Plant. The generators comprise three synchronous generators with a capacity of 205 MW each, thereby bringing the total installed capacity to 615 MW.

On the contrary, the Xayaburi Hydroelectric Power Plant is a large run-of-river hydropower project, where the volume of water intake is equivalent to the water outflow, without water storage capacity or water diversion from the Mekong River. Water will flow through and cause the turbine's blades to spin and the shaft of the generator mounted to the turbine will then rotate. Such rotation will drive the generator to produce electricity.

The powerhouse of the Xayaburi Hydroelectric Power Plant is equipped with the Kaplan turbines at a relatively low rotational speed, which are designed to provide safe passage for fish, and also equipped with 8 generator units, consisting of 7 turbine and generator units of 175 MW each and one turbine and generator unit of 60 MW, with the total installed capacity of 1,285 MW.

Source of Energy for Power Generation by Hydroelectric Power Plants

The Nam Ngum 2 Hydroelectric Power Plant relies solely on the water in the Nam Ngum River, which originates from the Xiangkhouang Plateau, with a total length of approximately 354 kilometers. Its reservoir covers approximately 107 square kilometers, with the full water storage capacity of 4,886 million cubic meters at full supply level of 375 meters above mean sea level. Meanwhile, the power source for electricity production of the Xayaburi Hydroelectric Power Plant is water from the Mekong River, with a total length of approximately 4,350 kilometers, covering an area of the People's Republic of China, Myanmar, the Lao PDR, Thailand, Cambodia, and the Socialist Republic of Vietnam.

Despite the fact that the water supply has no cost for power generation, as it is derived from natural sources, the water volume during each time period is uncertain and unpredictable depending on weather conditions and seasons. According to the feasibility studies of the Nam Ngum 2 Hydroelectric Power Plant and the Xayaburi Hydroelectric Power Plant, which take into account the last 50-60 years of rainfall database, the amount of storm water is sufficient for power generation to meet the supply target under the Power Purchase Agreement with EGAT in the respective years.

The reservoir inflow volume of the Nam Ngum 2 Hydroelectric Power Plant during 2018 – 2020 was as follows:

	2018		2019		2020	
	Water Level as at the end of the month (meters above Mean Sea Level)	Water Inflow Volume (million cubic meters)	Water Level as at the end of the month (meters above Mean Sea Level)	Water Inflow Volume (million cubic meters)	Water Level as at the end of the month (meters above Mean Sea Level)	Water Inflow Volume (million cubic meters)
January	364.3	143	367.0	174	353.8	74
February	364.2	112	363.9	152	353.1	60
March	359.9	107	358.1	147	352.0	105
April	354.5	150	351.3	116	352.3	160
May	349.8	320	345.3	141	351.3	164
June	352.7	802	343.4	203	350.5	304
July	372.2	2,550	347.7	388	351.0	431
August	375.3	3,636	358.8	1,177	362.7	1,390
September	372.6	1,694	361.4	654	365.6	565
October	370.9	494	359.7	249	367.4	333
November	370.4	302	357.5	147	367.8	172
December	368.4	226	355.2	142	368.7	176
Total		10,535		3,689		3,934

Remark: Information from Nam Ngum 2 Power Company Limited

The average volume of water flow through the Xayaburi Hydroelectric Power Plant from the commencement of commercial operations was as follows:

Unit: Cubic Meter per Second

	2019	2020
January		1,545
February		1,300
March		1,411
April		1,784
May		1,788
June		2,304
July		3,014
August		5,337
September		4,248
October	1,820	3,180
November	1,572	2,284
December	1,842	2,207
Average	1,745	2,534

Remark: Information from Xayaburi Power Company Limited

2.2 Cogeneration Power Business

The power plants in this sector comprise:

- Bangpa-in Cogeneration Power Plant 1; and
- Bangpa-in Cogeneration Power Plant 2.

2.2.1 Products or Services in Cogeneration Power Business

The Company holds shares in Bangpa-in Cogeneration Limited (“BIC”) representing 65 percent of its registered and paid-up capital. BIC is a producer and distributor of electricity and steam from the natural gas-fired cogeneration power which consists of two power plants: Bangpa-in Cogeneration Power Plant 1 and 2. Both power plants are located in Bang Pa-in Industrial Estate, Amphoe Bang Pa-in, Phra Nakhon Si Ayutthaya Province. Bangpa-in Cogeneration Power Plant 1 has installed capacity of 118 MW of electricity and 20 tons of steam per hour. The power plant has a Power Purchase Agreement with EGAT to sell 90 MW of electricity for a period of 25 years from the Commercial Operation Date, with the remainder of electricity and steam to be sold to industrial operators in Bang Pa-in Industrial Estate. Bangpa-in Cogeneration Power Plant 1 commenced its commercial operation on June 28, 2013. Bangpa-in Cogeneration Power Plant 2 has installed capacity of 120 MW and has a Power Purchase Agreement with EGAT to sell 90 MW for a period of 25 years from the Commercial Operation Date. The remainder of electricity will be also sold to industrial operators in Bang Pa-in Industrial Estate. Bangpa-in Cogeneration Power Plant 2 commenced its commercial operation on June 29, 2017.

Revenue from sales of electricity by Bangpa-in Cogeneration Power Plant 1 and 2 to EGAT

- (a) Capacity Payment, which is determined from EGAT's long run avoided capacity cost from purchase of electricity from Small Power Producer ("SPP"), including transmission system cost;
- (b) Energy Payment, which is determined from fuel costs for power generation, operation and maintenance costs and cost for commercial operations of the power plants, which EGAT can avoid in the future from purchase of electricity from small power producer with cogeneration power production system;
- (c) Fuel Savings Payment, which is determined based on fuel saving derived from small power producer with cogeneration power production system.

Revenue from sales of electricity by Bangpa-in Cogeneration Power Plant 1 and 2 to industrial operators

Power supply agreements for industrial operators are concluded by way of negotiations with the respective customers. The electricity price and discount are based on the reference tariff of the Provincial Electricity Authority ("PEA") for large-scale business.

Revenue from sales of steam by Bangpa-in Cogeneration Power Plant 1 to industrial operators

Steam supply agreements for industrial operators are concluded by way of negotiations with the respective customers in the same manner as the power supply agreements. The steam price is based on the avoided cost basis, which may be adjusted to reflect changes in various indices, including fuel prices and the Consumer Price Index.

2.2.2 Marketing and Competition in Cogeneration Power Business

In expanding the cogeneration power business, the Company focuses on the model of selling the majority of the electricity to EGAT and selling the remaining electricity and steam to other industrial operators, which resulted in more stable revenue than selling electricity solely to the industrial operators.

Since 1992, the government announced intention to purchase electricity from the cogeneration power plants (Firm Type), with a capacity not exceeding 90 MW, resulted in many developers of power plants of such type. According to information as at January 2021, the status of cogeneration power plants was as follows:

Status	Number of Projects	Installed Capacity (MW)	Sale Volume under Power Purchase Agreements with the Government (MW)
Commercially operational	76	9,611	6,302
PPA executed, but not yet commercially operational	3	326	270
PPA terminated	3	235	162
Application cancelled	1	206	32
Total	83	10,378	6,766

Remark: Information from the Office of the Energy Regulatory Commission of Thailand, as at January 2021.

Based on the steady demand for electricity by EGAT and industrial operators, the Company is confident in the opportunity and competitiveness of its cogeneration power plants. The Company entered into the long-term power and steam purchase agreements, in order to guarantee the stability in the sales of electricity and steam to customers. In addition, the Company has continuously made preparations in various essential aspects, namely, securing fuel supply, connecting with customers with electricity and steam demand, etc.

2.2.3 Supply of Products or Services in Cogeneration Power Business

Power Generation by Cogeneration Power Plants

The production of electricity by the cogeneration power plants requires natural gas whose combustion creates thermal pressure that rotates the gas turbine. The rotating gas turbine will then spin the generator to produce electricity. Steam produced by such combustion will pass through the heat recovery steam generator (HRSG) to produce high pressure steam, which will be used to rotate the steam turbine. Such rotating steam turbine will further spin the power generator to produce electricity accordingly. The remainder of steam will be further sold to industrial operators who need steam in production process.

Source of Energy for Power Generation by Cogeneration Power Plants

The cogeneration power plants utilize natural gas and tap water supplies as raw materials in the power generation. In this regard, Bangpa-in Cogeneration Power Plant 1 and 2 signed a Natural Gas Purchase Agreement with PTT Public Company Limited (“PTT”) on March 18, 2011 and May 12, 2014, respectively and also entered into a Water Purchase Agreement with TTW Public Company Limited (“TTW”) on February 15, 2011 and January 27, 2015, respectively. Such Agreements have a term of 25 years each from the Commercial Operation Date.

2.3 Solar Power Business

The power plants in this sector include:

- Bangkhenchai Solar Power Plant
- Phachi Solar Power Plant
- Banglen Solar Power Plant
- Phutthamonthon Sai 5 Solar Power Plant
- Mahachai Solar Power Plant
- Krathum Ban Solar Power Plant
- Khlong Preng Solar Power Plant
- Nakhon Ratchasima Solar Power Plant
- Chiangrai Solar Power Plant

2.3.1 Products or Services in Solar Power Business

Bangkhenchai Solar Power Plant

The Company holds shares in Bangkhenchai Company Limited (“BKC”) representing 100 percent of its registered and paid-up capital. BKC invests in the Bangkhenchai Solar Power Plant, which is situated at Amphoe Pak Thong Chai, Nakhon Ratchasima Province, and employs thin film photovoltaic module technology with the installed capacity of 8 MW. A Power Purchase Agreement was executed for Very Small Power Producer (“VSPP”) with PEA on July 28, 2009 for a period of five years from the Commercial Operation Date, with automatic renewal every five years until the Agreement is terminated. Under the Power Purchase Agreement, PEA agrees to purchase electricity at the maximum quantity of 8 MW, whereby the Bangkhenchai Solar Power Plant will receive the electricity tariff adder (“Adder”) at the rate of Baht 8 per kWh (“unit”) for a period of 10 years from the COD. The Power Plant started the production and distribution of electricity to PEA on August 10, 2012.

Furthermore, BKC has invested in the Monocrystalline solar power plants, consisting of five solar rooftop power plants and one solar farm power plant, with the total installed capacity of 6.73 MW, for production and distribution of electricity to the private sector. Each power plant has a power purchase agreement for a period of 25 years from the Commercial Development Date, namely:

- Solar rooftop power plant in Amphoe Phachi, Phra Nakhon Si Ayutthaya Province (“Phachi Solar Power Plant”), with the installed capacity of 0.89 MW

- Solar rooftop power plant in Amphoe Banglen, Nakhon Pathom Province (“Banglen Solar Power Plant”), with the installed capacity of 0.97 MW
- Solar rooftop power plant in Amphoe Sam Phran, Nakhon Pathom Province (“Phutthamonthon Sai 5 Solar Power Plant”), with the installed capacity of 0.97 MW
- Solar rooftop power plant in Amphoe Mueang Samut Sakhon, Samut Sakhon Province (“Mahachai Solar Power Plant”), with the installed capacity of 0.72 MW
- Solar rooftop power plant in Amphoe Krathum Ban, Samut Sakhon Province (“Krathum Ban Solar Power Plant”), with the installed capacity of 0.51 MW
- Solar farm power plant in Amphoe Khlong Preng, Chachoengsao Province (“Khlong Preng Solar Power Plant”), with the installed capacity of 2.67 MW.

Nakhon Ratchasima Solar Power Plant

The Company holds shares in Nakhon Ratchasima Solar Company Limited (“NRS”) representing 30 percent of its registered and paid-up capital. NRS invests in the Nakhon Ratchasima Solar Power Plant, which is situated at Amphoe Dan Khun Thot, Nakhon Ratchasima Province, and employs thin film photovoltaic module technology with the installed capacity of 6 MW. A Power Purchase Agreement was executed for Very Small Power Producer with PEA for a period of five years from the Commercial Development Date, with automatic renewal every five years until the Agreement is terminated. Under the Power Purchase Agreement, PEA agrees to purchase electricity at the maximum quantity of 6 MW, whereby the Nakhon Ratchasima Solar Power Plant will receive Adder at the rate of Baht 8 per unit for a period of 10 years from the COD. The Power Plant started the production and distribution of electricity to PEA on March 8, 2012.

Chiangrai Solar Power Plant

The Company holds shares in Chiangrai Solar Company Limited (“CRS”) representing 30 percent of its registered and paid-up capital. CRS invests in the Chiangrai Solar Power Plant, which is situated at Amphoe Mae Chan, Chiang Rai Province, and employs Polycrystalline solar cells technology with the installed capacity of 8 MW. A Power Purchase Agreement was executed for Very Small Power Producer with PEA for a period of five years from the Commercial Operation Date, with automatic renewal every five years until the Agreement is terminated. Under the Power Purchase Agreement, PEA agrees to purchase electricity at the maximum quantity of 8 MW, whereby the

Chiangrai Solar Power Plant will receive Adder at the rate of Baht 8 per unit for a period of 10 years from the COD. The Power Plant started the production and distribution of electricity to PEA on January 17, 2013.

Revenues from sales of electricity of the solar power plants PEA:

- a. The electricity tariff for electricity distributed to PEA is at the voltage of 11-13 kV, whereby the price and the Ft charge will be in accordance with the Notification of EGAT.
- b. The Adder will be at the rate of Baht 8 per unit for a period of 10 years from the COD.

Revenues from sales of electricity of the solar power plants to the private sector:

The electricity tariff for electricity distributed to the private sector will be subject to negotiations with the respective customers. The electricity price and discount are based on the reference tariff of PEA.

2.3.2 Marketing and Competition in Solar Power Business

Thailand's potential for solar power generation is relatively high due to its geographical location near the equator, which is exposed to higher solar radiation on average than other regions in the world. Based on the study of the satellite data along with ground surveys by the Department of Alternative Energy Development and Efficiency, the majority of the areas which have solar energy potential for Thailand with the yearly average solar radiation intensity of approximately 18.2 MJ/m² are located in the Northeastern region, while some of the areas are located in the lower Central region. Overall, Thailand has potentials to generate electricity from solar energy up to 10,000 MW.

In 2015, the Ministry of Energy has prepared the Alternative Energy Development Plan for 2015 - 2036 ("AEDP 2015"), focusing on promoting production of energy from renewable sources available in the country, with the target to increase the proportion of solar power production to 6,000 MW by 2036, from 2,962 MW in 2018.

The data on the electricity power produced by solar and sold to the system during 2015 – September 2020 was as follows:

					Unit: MW
Alternative Energy	2016	2017	2018	2019	September 2020
Solar*	2,446	2,697	2,696	2,983	2,983

Remark: * Installed capacity

Information from the Department of Alternative Energy Development and Efficiency, as at September 2020

2.3.3 Supply of Products or Services in Solar Power Business

Power Generation by Solar Power Plants

Solar power generation utilizes solar cells to convert solar energy to produce electricity when the solar energy, in the form of electromagnetic waves carrying energy, contacts the semiconductors, which are capable of absorbing the solar energy spectrum, the semiconductor cells will convert the solar energy into direct current. However, due to the low electromotive force produced from one solar cell, it is necessary to connect several solar cells in series to boost the electromotive force, for commercial utilization. These connected solar cells in appropriate number and size are called a solar module or solar panel.

Electricity produced from the panels is a low voltage direct current, which must pass through an inverter for conversion into a low voltage alternating current, which will then flow through a transformer to increase its voltage, and be sent to the transmission system of the PEA for further distribution to customers.

Source of Energy for Power Generation by Solar Power Plants

The major source of energy for the solar power plants is sunlight, which is free of charge from natural resources. Even though sunlight is a natural and clean energy source, its utilization is somewhat limited to only in daytime, which also has the uncertain intensity of solar radiation depending on geography and climate, as well as different seasons.

Therefore, the Company conducted studies as to whether the solar radiation intensity of the respective power plant sites was sufficient to produce electricity, prior to selecting locations or sites for the solar power plants.

2.4 Electricity Industry in Thailand

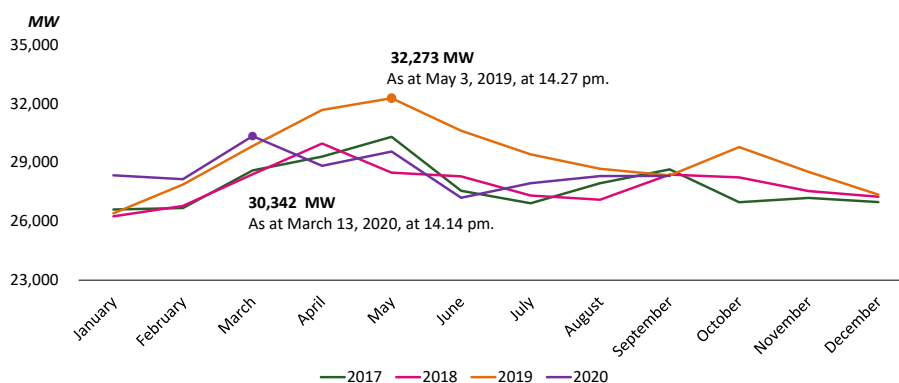
The electricity demand during January to October 2020 declined from the same period last year due to the COVID-19 pandemic situation, which resulted in a slow down in economic activities, especially in Tourism and Export sectors, and a decline in the Gross Domestic Product “GDP”) of Thailand.

2.4.1 Thailand’s Peak Electricity Demand

In 2020, the peak electricity demand took place on 13 March 2020, at 14.14 hours, at 30,342 MW, decreased by 1,931 MW or 5 percent from the peak electricity demand in 2019, which took place on 3 May 2019 at 14.27 hours, at 32,273 MW. The electricity demand in 2020 increased in the first quarter from the higher-than-average temperature.

Subsequently, the demand gradually decreased following the decline of industrial productivity as a result from COVID-19 situation.

The monthly peak electricity demand from 2017 – 2020 was as follows:

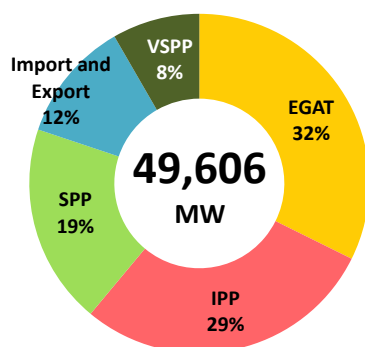


Remark: Information from the Energy Policy and Planning Office, Ministry of Energy, published in December 2020.

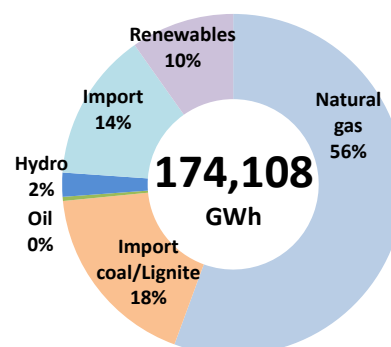
2.4.2 National Electricity Production Capacity

The combined on-grid capacity as at October 2020 by power project types and the accumulated on-grid production by fuel types from January to October 2020 were as follows:

Combined on-grid capacity by power project types



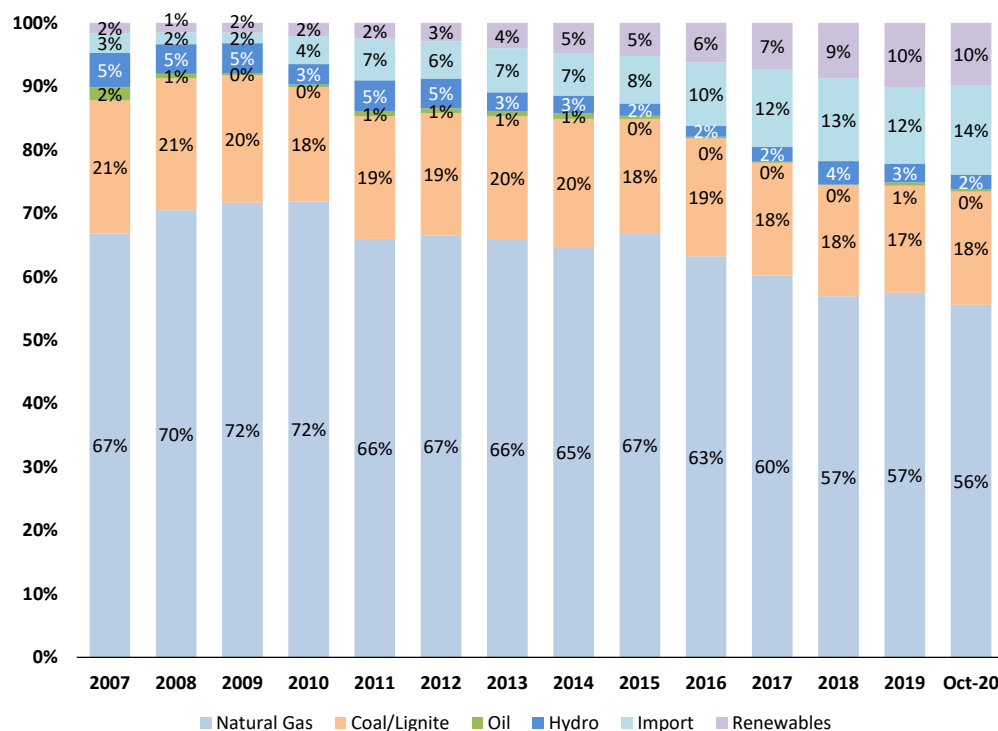
Accumulated on-grid production



Remark: Information from the Energy Policy and Planning Office, Ministry of Energy, published in December 2020

The fuel type in the power production was adjusted over time to be appropriate to fuel supply condition, economic expansion, and the government policy. Since 2015, the proportion of natural gas in the power production has declined; while the usage of renewable energy in the power production and overseas power import has increased.

Power production by fuel type during 2007 – October 2020 as follows:



Remark: Information from the Energy Policy and Planning Office, Ministry of Energy, the Electricity Generating Authority of Thailand, the Metropolitan Electricity Authority, and the Provincial Electricity Authority, published in December 2020

2.4.3 Electricity Distribution

EGAT is the authority responsible for producing and distributing electricity in response to the electricity demand countrywide through the power generating units, comprising its own power projects and project owned by private power producers in Thailand, the Lao PDR and Malaysia. EGAT sells electricity to its buyers, namely, the Metropolitan Electricity Authority (“MEA”), the Provincial Electricity Authority (PEA) and direct customers (certain industrial factories as specified in the Royal Decrees). EGAT distributes electricity through high voltage stations, and MEA and PEA are responsible for distribution and retail sales to general public. Electricity purchased from EGAT at the connection points is transmitted to the substations for further distribution to the consumers.

The electricity distribution from January to November 2020 by customer types was as follows:

Customer	Electricity Distribution Volume (GWh)	Percent
Provincial Electricity Authority	124,286	72.1
Metropolitan Electricity Authority	46,868	27.2
Direct customers	1,342	0.8
Total	172,497	100.0

Remark: Information from the Energy Policy and Planning Office, Ministry of Energy, published in December 2020

2.4.4 Forecasts of New Power Production Capacity under Thailand Power Development Plan 2018 – 2037 Revision 1 (PDP 2018 Revision 1)

In October 2020, the Council of Ministers' Meeting approved the Thailand Power Development Plan 2018 – 2037 Revision 1 (PDP 2018 Revision 1) as drew up by the Ministry of Energy. Such plan is committed to the stability of power production, transmission and distribution systems, power stabilization and sufficiency to meet power demand for accommodating the economic and social development of the country, including the quality of life of the people. The plan was forecasted that at the end of 2037, Thailand would have the net power production capacity of 77,211 MW, 56,431 MW of which would be from the new production capacity during 2018 – 2037.

Target power production percentage by fuel type under the PDP 2018 Revision 1 as at 2037 in comparison with the forecast percentage as at 2020 is as follow:

Types of Fuels	Forecast 2020 Energy Mix (MW)	Target 2037 Energy Mix (MW)
Import Hydroelectricity	3,948	6,888
Renewable Energy	11,875	29,004
Natural Gas	29,331	31,112
Coal / Lignite	6,110	4,843
Diesel / Fuel Oil	380	65
Others	300	4,300
Total	51,943	77,211

Remark: Information from the Thailand Power Development Plan 2018 – 2037 Revision 1 published in October 2020



2.5 Rights and Privileges from Investment Promotion

The Company's subsidiaries and associated companies have been granted investment promotion from the Thailand Board of Investment ("BOI") per the following Promotional Certificates:

	Bangpa- in Cogeneration Power Plant 1	Bangpa- in Cogeneration Power Plant 2	Bangkhenchai Solar Power Plant	Phachi Solar Power Plant	Banglen Solar Power Plant	Phutthamonthon Sai 5 Solar Power Plant	Mahachai Solar Power Plant	Krathum Ban Solar Power Plant	Khlong Preng Solar Power Plant	Nakhon Ratchasima Solar Power Plant	Chiangrai Solar Power Plant
Promotional Certificates Nos.	1565(2)/2554	1132(2)/2558	1089(1)/2555	61-1228-1-00-1-0	61-1295-1-00-1-0	61-1294-1-00-1-0	61-1293-1-00-1-0	61-1292-1-00-1-0	62-0417-1-00-1-0	1300(1)/2554	2071(1)/2554
Dated	May 18, 2011	February 2, 2015	January 23, 2012	October 16, 2018	November 5, 2018	November 5, 2018	November 5, 2018	November 5, 2018	April 25, 2019	March 11, 2011	August 30, 2011
Business Category	Public Utilities and Basic Services	Public Utilities and Basic Services	Public Utilities and Basic Services	Production of Power or Electricity and Steam from Renewable Energy, except waste or waste - derived fuel	Production of Power or Electricity and Steam from Renewable Energy, except waste or waste - derived fuel	Production of Power or Electricity and Steam from Renewable Energy, except waste or waste - derived fuel	Production of Power or Electricity and Steam from Renewable Energy, except waste or waste - derived fuel	Production of Power or Electricity and Steam from Renewable Energy, except waste or waste - derived fuel	Production of Power or Electricity and Steam from Renewable Energy, except waste or waste - derived fuel	Public Utilities and Basic Services	Public Utilities and Basic Services
1. Permission to bring foreign experts or specialists into the Kingdom in the number and for the period of time as the Board of Investment may consider appropriate.	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted
2. Permission to own land to the extent as the Board of Investment may consider appropriate.	None	None	None	None	None	None	None	None	None	Granted	Granted
3. Import duty exemption/reduction for machinery granted as the Board of Investment may approved.	Exempted (import by November 18, 2016)	Exempted (import by August 2, 2018)	Exempted (import by July 23, 2015)	Exempted (import by April 16, 2021)	Exempted (import by May 5, 2021)	Exempted (import by May 5, 2021)	Exempted (import by May 5, 2021)	Exempted (import by May 5, 2021)	Exempted (import by October 25, 2021)	Exempted (import by September 11, 2013)	Exempted (import by February 28, 2015)



	Bangpa- in Cogeneration Power Plant 1	Bangpa- in Cogeneration Power Plant 2	Bangkhenchai Solar Power Plant	Phachi Solar Power Plant	Banglen Solar Power Plant	Phutthamonthon Sai 5 Solar Power Plant	Mahachai Solar Power Plant	Krathum Ban Solar Power Plant	Khlong Preng Solar Power Plant	Nakhon Ratchasima Solar Power Plant	Chiangrai Solar Power Plant
4. Corporate income tax exemption granted for the net profit derived from the promoted business.	8 years (not exceeding Baht 4,934 Million)	8 years (not exceeding Baht 5,108 Million)	8 years	8 years (not exceeding Baht 33 Million)	8 years (not exceeding Baht 38 Million)	8 years (not exceeding Baht 35 Million)	8 years (not exceeding Baht 27 Million)	8 years (not exceeding Baht 21 Million)	8 years (not exceeding Baht 106 Million)	8 years	8 years
5. Period for carrying forward loss during the promoted period to set off against net profits to be derived after the corporate income tax exemption period.	5 years	5 years	5 years	5 years	5 years	5 years	5 years	5 years	5 years	5 years	5 years
6. Exemption from including dividend from the promoted business in the calculation for income tax payment.	8 years	8 years	8 years	8 years	8 years	8 years	8 years	8 years	8 years	8 years	8 years
7. 50 percent reduction of corporate income tax for the net profit derived from the promoted business.	None	None	5 years (from the day after the period in item 6)	None	None	None	None	None	None	5 years (from the day after the period in item 6)	5 years (from the day after the period in item 6)
8. Two times deduction of costs of transportation, electricity and water supply.	None	None	10 years (from the first day of receiving income from the promoted business)	None	None	None	None	None	None	10 years (from the first day of receiving income from the promoted business)	10 years (from the first day of receiving income from the promoted business)
9. Deduction of investment funds in installation or construction of facilities.	None	None	25 percent of investments	None	None	None	None	None	None	25 percent of investments	25 percent of investments
10. Permission to bring or remit foreign currencies out of the Kingdom.	None	None	None	None	None	None	None	None	None	Granted	Granted

3. Risk Factors

The Company supports the enterprise-wide risk management and also takes into account internal and external factors which impact the business operations. The risk management is an important tool in managing the Company to achieve its goals with efficiency and effectiveness. The Board of Directors appoints the Corporate Governance and Risk Management Committee with the duties to consider the risk management policy and provide the Board of Directors and the management with advice on risk management, including monitoring and quarterly evaluation of risk management, annual risk management plan, and regular report to the Board of Directors for acknowledgement. Moreover, the Company and its affiliated companies completely establish the risk management working group and communicate practical guidelines for risk management to the risk management working group for acknowledgement. The risk management working group is composed of high-ranking executives of the Company and its affiliated companies (excluding managing directors) to perform the duties to define criteria for risk assessment, prepare an annual risk management plan, and quarterly report on risk management, including support of a culture of enterprise-wide risk management to ensure that staff at all levels are aware of risk management and integrate the risk management into the operations.

The significant risks and guidelines for risk management can be summarized as follows:

1. Risks to the Company's Investments

The Company invests in other businesses, with the Company deriving its core revenue from dividend income from the companies invested in by the Company. In 2020, the Company's dividend income represented 54 percent of revenue under the separate financial statements. Should any business in which the Company holds shares be affected by various risks, the operating results would not meet the goal and it would be impossible to pay dividend as expected. In this aspect, the Company's management guidelines are then laid down as follows:

- **Project Selection:** The Board of Directors recognizes the importance of investment project selection process and thus set out a clear policy on investment in other companies operating the business of electricity production and distribution to ensure that risks have been managed to be at an acceptable level, with reasonable returns. The Project Development and Asset Management Department has the duty to conduct analysis of various related factors in support of consideration of project selection, in respect of both returns on investment and risk factors, which may include engagement of an external consultant or expert to provide specific advice, and to propose investment information to the Board of Directors for approval.
- **Management of Projects under Construction:** The Company recognizes the importance of the projects under construction period which may face risks of construction behind schedule, resulting from engineering technical problems, contractor's machinery installation, natural disasters, etc. For that reason, the Company has selected the contractor with expertise in the construction business and experience in management of construction projects as same as company projects, as the contractor has experience in construction with satisfactory performance. Furthermore, the contracts are on a Fixed Cost Lump Sum Turnkey basis, which help reduce risks on construction cost which may rise. Moreover, the Company has taken out insurance for the projects under construction, covering potential risks in construction and related works to ensure that the Company's projects under construction will be completed as planned.

- **Monitoring of the Operational Results:** The Company has set out its clear control and governance mechanisms of the businesses invested in by the Company in the Control Policy, under which the Company appoints its representatives to serve as directors or executives of its subsidiaries and associated companies, according to their shareholding percentage, and also clearly determines the scope of power to exercise discretion as the Company's representatives. Moreover, the businesses invested in by the Company must regularly report their respective financial positions and operational results in comparison with the specified goals to the Board of Directors' Meeting on a quarterly basis. The subsidiaries must submit information of new investment projects to the Company and also report on progress of the respective investment projects. Furthermore, the Company's Internal Audit Division will review the internal control systems of its subsidiaries to ensure sufficient and proper prudence and strict compliance therewith. These enable the Company to closely follow up the financial positions and operational results of the respective businesses invested in by the Company in order to minimize and manage risks from such investments.

2. Business Risks

2.1 Risk in respect of availability of power plants

The Company's goal is to deliver electricity and steam with quality and availability to customers, including various supplier/traders, by taking security and stabilization of production of electricity and steam into account. The Company focuses on management of machinery and equipment, including development and improvement of efficiency of the power plants to ensure their round-the-clock availability. In this aspect, the Company's risk management is as follows:

- Establishing an annual proactive maintenance plan in order to inspect equipment, machinery according to schedule, and overseeing and monitoring maintenance under the maintenance plan to ensure that the machinery and equipment are in a ready condition to function efficiently, as well as guaranteeing the availability of the power plants under the agreements.
- Engaging the expert service providers under the Operation and Maintenance Agreement, namely, contracting EGAT to conduct maintenance of the Nam Ngum 2 Hydroelectric Power Plant, and Solarcon Co., Ltd. to conduct maintenance of the BKC solar power plants, as well as engaging independent consultants to measure the efficiency and stability of various aspects of the power plants, with regularly follow-up reports to strengthen the availability of the power plants.
- Ensuring sufficient and suitable backup of necessary equipment and supplies, including critical spare parts for maintenance of the power plants, with regular inspection and counting of necessary equipment and supplies requiring to be conducted.

- Applying the ISO 9001: 2015 Quality Management System to the Company's power plants to ensure that the power plants have the quality management system in place and meet the working standards in processes, such as, production, maintenance, inventory management, purchasing or procurement, etc.
- Encouraging staff to receive training to increase their knowledge and capability in enhancement of efficiency in their performance, as well as organizing a Knowledge Sharing activity through which knowledge can be exchanged among staff within the Company.

2.2 Risk in respect of raw materials required for electricity production

The Company invests in the business of electricity production from various kinds of energy, which needs different raw materials in electricity production. That is, the hydroelectric power plants and the solar power plants produce electricity from renewable energy, using natural raw materials in electricity production, and as such, there may be unexpected risks in respect of available raw materials, for example, climate change, natural phenomenon, solar irradiation, unanticipated change in rainfall volume during each period of time, etc. As for the cogeneration power plants which use natural gas as fuel in electricity production, there may be risks from natural gas shortage or natural gas supplier's failure to supply fuel to meet the electricity production demand, and as a result, the Company may not be able to produce electricity as specified in the Power Purchase Agreement. In this aspect, the Company's risk management is as follows:

- Installing the water level measuring stations on the Mekong River, due to the fact that the Xayaburi Hydroelectric Power Plant is a run-of-river hydroelectric power plant without reservoir. The Xayaburi Hydroelectric Power Plant has installed a total of 14 water level measuring stations on the Mekong River and its tributaries, such as, Nam Ou River, Nam Suang River, and Nam Khan River. The water flow measuring stations are intended to measure and send out data every 15 minutes, with these water volume data being used to further make a production plan.
- Monitoring and taking precaution of climate change. The Nam Ngum 2 Hydroelectric Power Plant declared the year 2020 to be a Drought Year under the Power Purchase Agreement (PPA) in order to ensure efficiency in drought management, with granting an exemption from potential fines in the event that the average actual hours of electricity generation are lower than specified in the Agreement.
- Conducting a study on the project locations, taking into account the appropriate solar irradiation, together with the past average of solar irradiation in any such locations before investment, including execution of the power purchase agreements of the solar power plants on a non-firm basis, and as such, no fine is imposed should these power plants be unable to produce electricity resulting from fluctuations in solar radiation.

- Executing the Natural Gas Purchase Agreement with PTT Public Company Limited (PTT), for a period of 25 years from the Commercial Operation Date, on condition that PTT must pay compensation for its failure to supply natural gas in the volume as specified in the Agreement. In 2020, PTT was able to supply natural gas to the Company in accordance with the Agreement, thereby enabling the Company to produce electricity as specified in the Power Purchase Agreement.

2.3 Risk from natural disasters

The Company's power plants are located in areas which may be at risk from natural disasters, such as, earthquakes, floods, landslides, etc., and thus, it may have a significant impact on the electricity production process. In this aspect, the Company's risk management is as follows:

- Making a design of the power plant structures with stability and security so that they are resistant to earthquakes which may occur, namely, the Nam Ngum 2 Hydroelectric Power Plant which is capable of withstanding the shaking caused by an earthquake to a maximum (Safety Evaluation Earthquake (SEE)) at 0.32g based on the ground acceleration value, and which is also equipped with the overflow prevention system through the Spillway with its primary function to drain flood waters; and the Xayaburi Hydroelectric Power Plant which has the structures with special reinforcement in accordance with the international standards of the International Commission on Large Dams (ICOLD), and is capable of withstanding the shaking caused by an earthquake to a maximum (Safety Evaluation Earthquake (SEE)) at 0.44g based on the ground acceleration value, together with its design to be equipped with a total of 7 spillway gates; as well as drawing up the Emergency Action Plan for response to various unusual events, thereby ensuring that the structural strength of the power plants can safely withstand the natural disasters caused by earthquakes and floods.
- Surveying the respective movement behaviors of the Nam Ngum 2 Hydroelectric Power Plant and the Xayaburi Hydroelectric Power Plant by ensuring the power plants' safety monitoring, such as, structural behavior monitoring, as well as preparing a monthly report indicating the monitoring results, together with determination of a major inspection schedule of the power plants for three times a year, divided into two times during the dry season and the other times during the rainy season.
- Drawing up the respective inspection and maintenance plans in accordance with the ICOLD 2008 standard for earthquake preparedness, both for the Nam Ngum 2 Hydroelectric Power Plant and the Xayaburi Hydroelectric Power Plant.
- Surveying the respective locations of the solar power plant situated in Amphoe Pak Thong Chai, Nakhon Ratchasima Province, and the Khlong Preng Solar Power Plant situated in Amphoe Khlong Preng, Chachoengsao Province, with the Company's survey

and analyze of the power plant locations revealing that the areas where the power plants are located are high and never experienced flooding before. As for the solar rooftop power plants in Bangkok and its vicinity, the Company designed the solar panel mounting equipment, which its thorough consideration of wind load effects was already given.

- Taking out insurance on potential damage which may occur to assets for the electricity production business, covering property damage, business interruption, and public liabilities.

2.4 Risk in respect of safety, occupational health, and environment

The Company continuously attaches importance to and emphasize works in respect of safety, occupational health, and environment in order to achieve maximum efficiency in performance of both staff and contractors, including suppliers/traders of the Company performing their duties in the offices and power plants, with the aim of becoming an “Incident and Injury Free Organization”. In this aspect, the Company’s risk management is as follows:

- Establishing social and environmental practices of the Company and its affiliated companies to conduct the social and environmental risk management surrounding the power plants; creating added value to various communities, including environmental management, to build confidence of all stakeholders.
- Organizing a SAFETY WEEK activity to raise awareness among staff regarding work safety through training for staff on the topic “Health and Safety in the Work Environment”, to help enhance efficiency in accident prevention in the workplace.
- Encouraging suppliers/traders to comply with the same safety, occupational health and environment standards as the Company does through the Supplier’s Code of Conduct to emphasize the safety and working environment, personal protective equipment, preparedness for an emergency situation, etc.
- Applying the international quality management systems (ISO 9001:2015 / ISO 45001:2018 / ISO 14001:2015) to management of the business operation process to enhance efficiency in performance, by putting stress on ensuring safety and giving priority to environment both within the power plants and their surrounding areas. In 2020, the Company received no report on serious accidents to staff or events affecting communities and the environment surrounding the power plants.

2.5 Risk from the outbreak of Coronavirus Disease 2019 (COVID-19)

Due to the situation of the outbreak of Coronavirus Disease (COVID-19), the Company’s operations, including production and sale of electricity, have not been substantially affected, because of the Company’s Power Purchase Agreement executed with the Electricity Generating Authority of Thailand, Provincial Electricity Authority, and Industrial Users which were in diverse industry groups. In this aspect, the Company’s risk management is as follows:

- Establishing a BCP Pandemic Team with the duty to closely monitor the situation of the outbreak of COVID-19;
- Formulating the COVID-19 spread prevention measures and communicating such measures to staff, suppliers/traders, contractors of the Company and its affiliated companies working in Thailand and the Lao People's Democratic Republic for acknowledgment and strict compliance; and
- Designating the power plant area as the control area where staff must strictly follow regulations for request for permission to enter and exit from such area, with a security unit responsible for monitoring of entering-exiting from the power plant area. Any third person's entrance to the power plant area must be approved by the power plant manager and reported to the Managing Director every time.

3. Financial Risks

3.1 Risk in respect of financial liquidity

Given the Company's plans to expand its investment in the business of electricity production and distribution from various kinds of energy in pursuit of achieving the operational goals, the financial liquidity is then essential in the business operations, whereby the Company controls and manages the liquidity to ensure that the Company's cash flows are sufficient for its business operations under normal circumstances and can accommodate its future investment expansion. In this aspect, the Company's risk management is as follows:

- Preparing reports on cash flow projections and regularly updating the data, as well as managing the loan agreements and closely coordinating with the lending banks in order to minimize risks of breaching the conditions of the loan agreements.
- Establishing a policy to manage the excess cash by investing in bank deposits and short-term investments having high liquidity with reliable financial institutions, as well as arranging for credit availability with commercial banks when fund is needed.
- Entering into credit facilities agreements with commercial banks subject to the term sheet stating the rights of such credit facilities, which the Company and its affiliated companies have the duty to comply with the same conditions and terms as those applicable to debentures or debts owed to other financial institutions, for instance, by maintaining an Interest-Bearing Debt to Equity Ratio, Debt Service Coverage Ratio, etc. In this regard, such credit facilities have not been drawdown on by the Company.

3.2 Risk from exchange rate fluctuations

The Company and its affiliated companies operate the businesses both in Thailand and the ASEAN region, by having their partial USD-denominated income and expenses, which may be then affected by an exchange rate adjustment. In this aspect, the Company's risk management is as follows:

- Managing cash inflows and cash outflows to ensure consistency with each other by way of natural hedge,

because of partial revenue from sales of electricity in USD currency and expenses payable in USD currency.

- Using a hedge accounting to hedge the foreign exchange exposure to a certain portion of its forecasted revenue from sales of electricity in USD currency, whereby such revenue from sales of electricity is designated as the hedged item and the long-term loans in USD currency are designated as the hedging instrument. Based on the cash flow hedge accounting principles, the fluctuation in gain and loss on exchange rate can be minimized, with the effective portion of the change in the fair value of the cash flow hedging instrument requiring to be recognized in other comprehensive income, instead of profit and loss of the Company, and then transferred to be recognized in profit or loss when the hedging item affects profit or loss.
- Considering entering to a forward contract(s) in an amount and for a period appropriate to the current situation and demand for money in different currencies, without any intention of speculation

3.3 Risk from interest rate fluctuations

The Company and its affiliated companies have been extended short-term and long-term loans by financial institutions to be used in the business operations; therefore, any material changes in interest rate will have an impact on the finance cost of the Company and its affiliated companies. In this aspect, the Company's risk management is as follows:

- Regularly monitoring the tendency of changes in interest rate, including management of loan portions subject to floating and fixed interest rates to stay within the appropriate level depending on circumstances; continuing management and improvement of finance cost. Currently, the Company has its loan portions subject to floating and fixed interest rates representing 20 percent and 80 percent of all loans, respectively.
- Entering into hedging agreements from floating interest rate to fixed interest rate as appropriate according to market conditions, without any intention of speculation.
- Issuing debentures subject to fixed interest rate to minimize the risk from interest rate fluctuations in market.

4. Risks with Impact on the Rights or Investment of Securities Holders

4.1 Risk from the Company's major shareholders with more than 50 percent shareholding

The Company's major shareholders comprise CH. Karnchang Group, with more than 50 percent shareholding, namely, CH. Karnchang Public Company Limited at 30.67 percent, TTW Public Company Limited at 24.98 percent, and Bangkok Expressway and Metro Public Company Limited at 17.58 percent, with the aggregate holding accounting for 73.23 percent (based on the information as at the Company's closing date of the share register on December 30, 2020). As a result, CH. Karnchang Group can control voting for resolutions requiring the majority of votes of a shareholders' meeting, except for such matters which, by laws or the Company's Articles of Association, require three-fourths of all votes in a

shareholders' meeting. However, in respect of matters which are significant to the Company's operations, e.g., amendment to the Company's Articles of Association, expansion or reduction of business scope, issuance of new securities, merger or amalgamation, including acquisition and disposition of assets, or execution of connected transactions with the Company or its related persons, and matters resulting in dilution effect, decrease in value and voting rights of the existing shareholders. Minor shareholders have the veto right, thereby enabling minor shareholders to exercise their rights to checks and balances for passing resolutions of the major shareholder group. In this regard, the Company emphasizes the significance of protection of benefits and rights of minor shareholders, including prevention of risks to rights or investment of the securities holders. In this aspect, the Company's risk management is as follows:

- Complying with the rules on transparent and auditable information disclosure, in order to enable the Company to operate its business to ensure the maximum and fair benefit to all shareholders on a regular basis in the long run.
- Complying with relevant laws and requirements regarding connected transactions or transactions which may give rise to a conflict of interest, to rest assured that such connected transactions are executed in accordance with the general trading conditions, with fairness and without transferring any benefit between the Company and any person who has a conflict of interest, to the best benefit of the Company, including sufficient information disclosure in compliance with the Principles of Good Corporate Governance and the Notifications of the Board of Governors of the Stock Exchange of Thailand and the Securities and Office Commission.
- Complying with the Principles of Good Corporate Governance which require the Board of Directors to be composed of four independent directors, representing one-third of all directors, all of whom are knowledgeable, competent and impartial, to provide their independent opinions in compliance with applicable rules. The Company is certain that such percentage of independent directors will efficiently counterbalance the power of the group of major shareholders, resting assured of protection and fair treatment to minor shareholders and stakeholders in all sectors.

4.2 Management risk in its subsidiaries and affiliated companies from investment in other companies

The Company operates its core business by investing in other companies, which, if the companies invested in by the Company has good performance, it will generate income and maximum benefit to the Company's investment. For this reason, the Company realizes the significance of management risk in its subsidiaries and affiliated companies invested in by the Company. In this aspect, the Company's risk management is as follows:

- Establishing the Control Policy and Governance Mechanisms in consistency with the Board of Directors' Charters of the Company's subsidiaries and affiliated

companies, by complying with rules relating to supervision of operations of its subsidiaries and affiliated companies under the Notification of the Capital Market Supervisory Board No. TorJor.39/2559 Re: Application for Approval and Granting of Approval for Offering of Newly Issued Shares.

- The Company will send a person(s) who has been approved by the Board of Directors' Meeting to serve as director and/or executive of its subsidiaries and affiliated companies at least in proportion to the Company's shareholding.
- Directors and/or executives of the Company who are appointed as directors and/or executives in any of its subsidiaries and affiliated companies have the duties to report to the Company on such subsidiary's financial status and operating results, execution of connected transactions, as well as acquisition or disposition of significant assets to company's Board of Director, which, in entering into such transaction, requires consideration of and compliance with the relevant regulations of the Office of the Securities and Exchange Commission and the Board of Governors of the Stock Exchange of Thailand, including various operational issues; and to vote on any such matters requiring resolutions to be passed by the Board of Directors or the shareholders' meeting.
- Setting out signatory conditions to bind a company in the respective subsidiaries and affiliated companies that require at least one director representing the Company as one of their respective signatory directors, to ensure that the Company can prevent risks and safeguard the interests of the Company's investments.

4.3 Risk from compliance, regulation, and laws

The Company and its affiliated companies operate the businesses in Thailand and the ASEAN region, which are required to comply with applicable rules, regulations, including laws of all related countries, as well as monitoring changes in such applicable rules, regulations, and laws. In this aspect, the Company's risk management is as follows:

- Collecting criteria, rules, regulations relating to information disclosure of listed companies and proposing the same to the Board of Directors, the management, and staff of the Company for their adherence.
- Regularly monitoring legal situations both within Thailand and related countries so that the Company has enough time to be prepared for actions, improvement, and readiness for any such changes material to the business operations in all respects.
- Engaging legal advisors to handle in the event of considerable complexity of applicable laws, rules, and regulations.
- Making preparation for prevention of risks arising from new laws. In 2020, the Company was aware of risks, significance and preparedness in connection with control, storage, use, disclosure and confidentiality of personal information, to ensure that the Company's operations were in accordance with the Personal Data

Protection Act B.E. 2562 (2019) (“Personal Data Protection Act”), which was promulgated on May 27, 2019 and will be effective on June 1, 2021, with the Company’s commitment to building awareness and recognition of importance of personal information among staff, the Company engaged a legal advisor from Chandler MHM Limited (“CMHM”) to make preparations as follows:

- Conducting a due diligence and/or internal audit;
- Providing general training covering basic content of the Personal Data Protection Act, the Company’s duties, and data owners’ rights, including data security and storage measures, and offenses under the Personal Data Protection Act; and
- Providing specific group training covering content related to each department in line with their respective work natures, including duties of the Data Protection Officer (“DPO”).

In this regard, such risk prevention ensures that the Company has created processes and operations which meet legal standards, without violating fundamental human rights and personal information. This will help prevent and reduce impacts which may occur to ensure that the Company is kept from being exposed to a risk of penalties for its non-compliance with laws, which, if so, will tarnish the Company’s reputation.

5. Emerging Risks

The Company recognizes emerging risks which may affect the Company’s sustainability in terms of business prospects and challenges, the Company has therefore studied and analyzed significant issues to which the Company may be exposed and which may be emerging risks over the next 3-5 years as follows:

Risks	Potential Impacts	Risk Management
Impacts of climate change, e.g., rising water volume, rising sea level, rising temperature, more severe natural disasters	<ul style="list-style-type: none"> • Inefficiency in electricity production which affects the power system stability • More difficult declaration of availability of electricity production due to climate change and varying water level 	<ul style="list-style-type: none"> • Research and study on water volume and changes in natural disasters and impacts on the power system stability • In-depth risk assessment of natural disasters and forecast of severity of climate change to all power plants. • Response to natural disasters in terms of production, maintenance, equipment, and safety of staff • Enhancement of power plants to tolerate natural perils or fluctuating weather, e.g., rising of power plant sites against flooding, installation of weatherproof equipment and machinery which can tolerate extreme hot or cold conditions, and design of public utility systems of the power plants to be

Risks	Potential Impacts	Risk Management
		<p>ready for flooding</p> <ul style="list-style-type: none"> • Installation of equipment to monitor the dam conditions and real time Web-based monitoring system to make sure that after commercial operation commencement, the power plant structures remain subject to regular monitoring and proactive measures by a team of engineers and experts
Energy technology development, e.g., use of renewable energy, energy storage	<ul style="list-style-type: none"> • Changes in energy consumption behavior • Possible changes in electricity production business model • Changes in applicable policies and laws to secure the power system stability • Possible changes in tariff according to costs 	<ul style="list-style-type: none"> • Study and assessment of capacity of renewable energy business operations in terms of personnel, budget, and applicable policies and laws • Study and follow-up of renewable energy policies in various countries • Determination of a goal for investment in and expansion to renewable energy business • Study and development of technology and tentative prices of equipment/battery for energy storage
Digital transformation	<ul style="list-style-type: none"> • Changes in energy consumption behavior • Business plans staying agile flexible and adaptable to digital transformation • Data Mining, Artificial Intelligence, Quantum Computing technologies being more easily accessible, thereby increasing cyber attacks, such as, data leakage, unauthorized change in data, or data theft 	<ul style="list-style-type: none"> • Provision of training to enhance technology knowledge and build the awareness of information technology security for all staff in the organization • Addition of the Intrusion Detection and Prevention Systems, including study on new technology which may affect the business operations • Improvement of work procedures to make them responsive to changes in technology • Addition of the disaster recovery system to support the business continuity • Regular monitoring of the evolution and patterns of cyber attacks, including performance evaluation of the information security system of the Company and the operating systems of the power plants

4. Property Used in Business Operations

4.1 Description of Property Used in Business Operations

4.1.1 Investments

The Company's investments in its subsidiaries and associated companies and jointly controlled entities as presented in the Company's separate financial statements as at December 31, 2020 were as follows:

Company	Business Nature	Registered Capital (Million Baht)	Shareholding Percentage (percent)	Book Value based on Cost Method (Million Baht)
SouthEast Asia Energy Limited (SEAN)	Holds shares in Nam Ngum 2 Power Company Limited (NN2), representing 75 percent of its registered and paid-up capital. NN2 produces and sells electricity from its hydroelectric power plant.	6,606.75	61.33	9,930.91
Bangpa-in Cogeneration Limited (BIC)	Produces and sells electricity from its cogeneration power plants	2,705.00	65.00	2,173.31
Bangkhenchai Company Limited (BKC)	Produces and sells electricity from its solar power plants	234.25	100.00	527.06
Chiangrai Solar Company Limited (CRS)	Produces and sells electricity from its solar power plant	291.75	30.00	107.55
Nakhon Ratchasima Solar Company Limited (NRS)	Produces and sells electricity from its solar power plant	221.50	30.00	85.39
CKP Solar Limited	Develops various types of electricity business	20.00	100.00	5.75
Apollo Power Limited	Develops various types of electricity business	1.00	100.00	0.25
Vis Solis Limited	Develops various types of electricity business	1.00	100.00	0.25
Sole Power Limited	Develops various types of electricity business	1.00	100.00	0.25
Helios Power Limited	Develops various types of electricity business	1.00	100.00	0.25

Company	Business Nature	Registered Capital (Million Baht)	Shareholding Percentage (percent)	Book Value based on Cost Method (Million Baht)
Xayaburi Power Company Limited	Produces and sells electricity from its hydroelectric power plant.	26,861.00	37.50	11,585.93
Luang Prabang Power Company Limited	Produces and sells electricity from its hydroelectric power plant.	32.00	42.00	12.82

4.1.2 Fixed Assets

As at December 31, 2020, the Company and its subsidiaries used the following fixed assets in the business operations with net book values per the following details:

4.1.2.1 Assets of hydroelectric power project under concession agreement

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
NN2	Lao PDR	18,082.61	Owner	None

4.1.2.2 Property, plant and equipment

No.	Item	Net Book Value (Million Baht) ¹
1	Land	261.08
2	Solar power plant	779.96
3	Cogeneration power plant	7,711.27
4	Building	1.37
5	leased asset improvements	72.73
6	Equipment, furniture and office equipment	65.34
7	Vehicles	17.14
8	Assets under construction	10.71
	Total property, plant and equipment	8,919.60

¹ Net value refers to book value at cost less accumulated depreciation.

The details of the above property, plant and equipment of the Company and its subsidiaries can be classified by assets and companies as follows:

1) Land

As at December 31, 2020, the net book value of land under the consolidated financial statements of the Company and its subsidiaries was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
BIC	Bang Pa-in Industrial Estate Tambon Khlong Chik, Amphoe Bang Pa-in, Phra Nakhon Si Ayutthaya	159.33	Owner	To secure long-term loan facility with the lending financial institutions
	Pathum Thani	5.77	Owner	None
BKC	Amphoe Pak Thong Chai, Nakhon Ratchasima (547 plots)	95.98	Owner	To secure long-term loan facility with the lending financial institutions (205 plots of land, covering approximately 180 rai)
Total		261.08		

2) Solar power plant

As at December 31, 2020, the net book value of solar power plants under the consolidated financial statements of the Company and its subsidiary was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
BKC	Nakhon Ratchasima	779.96	Owner	To secure long-term loan facility with the lending financial institutions
Total		779.96		

3) Cogeneration power plant

As at December 31, 2020, the net book value of cogeneration power plants under the consolidated financial statements of the Company and its subsidiary was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
BIC	Phra Nakhon Si Ayutthaya	7,711.27	Owner	To secure long-term loans facility with the lending financial institutions
Total		7,711.27		

4) Building

As at December 31, 2020, the net book value of building under the consolidated financial statements of the Company and its subsidiary was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
BIC	Phra Nakhon Si Ayutthaya	1.37	Owner	None
Total		1.37		

5) Leased asset improvements

As at December 31, 2020, the net book value of leased asset improvements under the consolidated financial statements of the Company and its subsidiaries was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
Company	Bangkok	49.16	Owner	None
NN2	Lao PDR	23.57	Owner	None
BIC	Bangkok	0.00	Owner	None
Total		72.73		

6) Equipment, furniture and office equipment

As at December 31, 2020, the net book value of equipment, furniture and office equipment under the consolidated financial statements of the Company and its subsidiaries was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
Company	Bangkok	17.18	Owner	None
SEAN	Bangkok	0.06	Owner	None
NN2	Lao PDR	44.17	Owner	None
BKC	Bangkok	2.24	Owner	None
BIC	Phra Nakhon Si Ayutthaya and Bangkok	1.69	Owner	None
Total		65.34		

7) Vehicles

As at December 31, 2020, the net book value of vehicles under the consolidated financial statements of the Company and its subsidiaries was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
SEAN	Bangkok	0.00	Owner	None
NN2	Lao PDR	17.14	Owner	None
Total		17.14		

8) Assets under construction

As at December 31, 2020, the net book value of assets under construction under the consolidated financial statements of the Company and its subsidiaries was as follows:

Company	Location	Net Book Value (Million Baht)	Ownership	Encumbrance
Company	Bangkok	0.26	Owner	None
NN2	Lao PDR	5.13	Owner	None
BIC	Phra Nakhon Si Ayutthaya	5.32	Owner	None
Total		10.71		

4.1.3 Long-Term Lease Agreements

The Company and its subsidiaries entered into the long-term lease agreements with a term of three years or longer for the business operations with key details as follows:

Lessee	Lessor	Agreement	Area	Term	Starting Date	Ending Date
Company	CH. Karnchang Public Company Limited (CK)	Lease of space and air conditioning services and facilities in Viriyathavorn Building, CH Floor	642.5 square meters	3 years	1-Sep-20	31-Aug-23
Company	CH. Karnchang Public Company Limited (CK)	Lease of space and air conditioning services and facilities in Viriyathavorn Building, 20 th Floor	468.92 square meters	3 years	1-Jun-20	31-May-23
Company	CH. Karnchang Public Company Limited (CK)	Lease of space and air conditioning services and facilities in Viriyathavorn Building, 18 th Floor	479.43 square meters	3 years	1-Apr-20	31-Mar-23
Company	CH. Karnchang Public Company Limited (CK)	Lease of space and air conditioning services and facilities in Viriyathavorn Building, 17 th Floor	301.84 square meters	3 years	1-Jan-20	31-Dec-22
NN2	State Property Management Department, Ministry of Finance, Lao PDR	Lease of office space	2,106 square meters	25 years	1-Jan-09	31-Dec-33

Lessee	Lessor	Agreement	Area	Term	Starting Date	Ending Date
BIC	Bangpa-in Land Development Co., Ltd. (BLDC)	Memorandum of Agreement for Use of AQMs Area	96 square meters	3 years	1-Jan-21	31-Dec-23
BIC	Bangpa-in Land Development Co., Ltd. (BLDC)	Agreement for land utilization (for installing 115 kv and 22 kv power poles, covering an area of 10-1-33.94 rai, and laying steam pipelines, covering an area of 0-0-50.25 rai)	10 rai 1 ngarn 84.19 square wah	3 years	1-Jan-21	31-Dec-23
BIC	Bangpa-in Land Development Co., Ltd. (BLDC)	Memorandum of Agreement for land utilization for construction, expansion, utilization, maintenance and repair services of the pipeline system	1 rai 3 ngarn 12.50 square wah	3 years	1-Jan-20	31-Dec-22
BIC	State Railway of Thailand	Land lease for gas or oil business	17,925 square meters	3 years	1-Jun-18	31-May-21
BIC	Bangpa-in Land Development Co., Ltd. (BLDC)	Space lease for installing 115 kv underground conduit system	1 rai 3 ngarn 50 square wah	3 years	1-Jan-20	31-Dec-22
BIC	Bangpa-in Land Development Co., Ltd. (BLDC)	Memorandum of Agreement for use of space for installing 22 kv electric wire system (1-10-58.50 and 3-1-94 rai)	4 rai 1 ngarn 52.50 square wah	3 years	1-Jan-20	31-Dec-22
BKC	Siam Wire Industry Co., Ltd. (SWI)	Land lease agreement for operation of a solar farm power project	15 rai 2 ngarn 10 square wah	3 years	1-Jun-19	31-May-22

4.1.4 Intangible Assets

Right to produce and sell electricity

Right to produce and sell electricity arises from business consolidation. The fair value of assets is based on the date of business acquisition. The net book value of the right to produce and sell electricity as at December 31, 2020 was Baht 8,724.14 Million, divided into two portions, namely, the portion

attributable to the Company's shareholders of Baht 4,126.19 Million and the non-controlling interests of the subsidiaries of Baht 4,597.95 Million. The Company calculated the amortization of right to produce and sell electricity on a straight-line basis over the remaining terms of the rights to produce and sell electricity from the date the Company assumes control over the subsidiaries or from the commercial operation date in case where the Company's investment in the subsidiaries occurs prior to the commercial operation date, ranging from 10 to 27 years.

4.1.5 Related Agreements

The Company and its subsidiaries have the material agreements related to the business operations as follows:

Concession Agreement of Nam Ngum 2 Hydroelectric Power Plant

NN2 entered to the Hydroelectric Power Project Concession Agreement with the government of the Lao PDR on March 14, 2006 for a total period of 25 years from the commercial operation date. The Concession Agreement grants various rights to NN2, such as, the rights to possess, utilize and benefit from the project, the right to divert waterway, conduct dam construction, and water utilization from the Nam Ngum River in the power plant area, the right to develop other hydroelectric power plants in support of power plant development, etc.

NN2 has a duty to pay the royalty fee to the government of the Lao PDR and remit the income tax at the rate agreed upon in the Concession Agreement.

Electricity Production Licenses

- On January 30, 2013, the Energy Regulatory Commission approved the respective electricity production licenses to Bangpa-in Cogeneration Power Plant 1 and Bangpa-in Cogeneration Power Plant 2 for a period of 25 years each from their respective commercial operation dates to EGAT, on June 28, 2013 for Bangpa-in Cogeneration Power Plant 1 and on June 29, 2017 for Bangpa-in Cogeneration Power Plant 2.
- On June 29, 2012, the Energy Regulatory Commission approved an electricity production license to Bangkhenchai Solar Power Plant for a period of 10 years from its commercial operation date to PEA, on August 10, 2012.
- In 2019, the Energy Regulatory Commission approved a regulated energy production license to BKC for five solar rooftop power plants for a period of four years each.
- In 2020, the Energy Regulatory Commission approved a regulated energy production license to BKC for one solar farm power plant for a period of four years.

4.2 Policies on Investment and Management (Business Development Department)

The Company has a policy to invest in other companies in electricity production and distribution business from various types of energy to enhance the Company's growth in its core businesses and the synergy between the Company and its subsidiaries, as follows:

1. For the projects, which have been developed from the beginning (Green Field), the Company will invest in projects with expected Internal Rate of Return (IRR) of 10-15 percent, including projects that can provide other financial returns and add value to the Company's shareholders.

For investment in projects that the Company acquired from project developers (Brown Field), the Internal Rate of Return on such investment may be lower than in the Green Field case depending mainly on the acquisition value. The Company's past Brown Field investments generated Internal Rate of Return ranging approximately between 7-10 percent.

2. The Company will invest in projects, where the power purchase agreements have already been executed with reliable counterparties.
3. The Company will invest in projects that have already secured fuel supply agreements, where the fuel supply is the main raw materials for electricity production, and such fuel supply must be sufficient for electricity production throughout the period of such project agreements.
4. The Company will invest in projects, which procure main equipment and parts at reasonable costs and have appropriate maintenance period.
5. The Company will invest in projects, which benefit to the community and are friendly to the environment.
6. The Company will develop projects by itself when the investment size is appropriate for the Company's capability.
7. If the Company has to jointly invest with other investors, the Company will invest in projects with high potential and the joint investors must have business policy that is in line with the Company's policy.

The Company applies a control policy or a management policy along with appointing its representatives as the subsidiaries and associated companies' directors in proportion to its shareholding or in accordance with the shareholders' agreement (if any). The directors appointed by the Company have a duty to vote in the shareholders' meetings of the subsidiaries and associated companies in accordance with the guidelines or resolutions approved by the Board of Directors or the shareholders' meeting of the Company. The Company clearly specifies the scope of authority and discretion for its representatives. The representatives must report the financial positions and operational results of the invested companies on a monthly basis to enable the Company to closely monitor the respective operational results and financial positions of the Company's investments. Moreover, the Company specifies the scope of duties and responsibilities of directors and executives in the subsidiaries and associated companies. The appointed directors and executives can exercise their discretion and vote in the meetings of the subsidiaries and associated companies on general administrative matters, but for significant matters, they may not exercise their own discretion and must follow the decision approved by the Board of Directors' Meeting of the Company or the shareholders' meeting of the Company. The significant matters include consideration of execution of transactions with connected persons of the subsidiaries under the Notifications on Connected Transactions; consideration of execution of acquisition/disposition of assets of subsidiaries under the Notifications on Acquisition or Disposition; any arrangements which decrease the Company's shareholding percentage in any tier in any subsidiary by 10 percent of the subsidiary's registered and paid-up capital; and dissolution of any subsidiary.

5. Legal Disputes

As of December 31, 2020, the Company, its subsidiaries and associated companies had no legal dispute which might give rise to damage or impact on the business operations.

6. General Information and Other Significant Information

6.1 General Information

(1) Information of the Company

Company Issuing Securities : **CK Power Public Company Limited or CKP for securities trading**

Business Operation : Holding company, by holding shares in other companies engaging in the business of production and sales of electricity generated from various kinds of energy, both local and overseas, and providing of consulting service and other management services related to electricity production projects.

Registration No. : 0107556000167

Head Office : 587 Viriyathavorn Building, 19th Floor, Suthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok

Telephone : 02-691-9720-34

Fax : 02-691-9723

Registered Capital : 9,240,000,000 ordinary shares, at the par value of Baht 1 per share, representing the registered capital of Baht 9,240,000,000.

8,129,382,729 paid-up shares, representing the total registered and paid-up capital of Baht 8,129,382,729.

Foreign Limit : Not exceeding 49 percent

Free Float : 23.81 percent
(as at the closing date of the share register for the right to attend the 2020 Annual Ordinary General Meeting of Shareholders on June 25, 2020)

Website : www.ckpower.co.th

Board of Directors : directors@ckpower.co.th

Company Secretary : compliance@ckpower.co.th

Investor Relations : Mr. Tummakajorn Nuntapong
Telephone: 02-691-9720-34 ext. 17035
ir@ckpower.co.th

(2) Information of legal entities in which the Company held 10 percent of shares or more

Company Issuing Securities	SouthEast Asia Energy Limited or “SEAN”
Business Operation	Investment in hydroelectric power production business
Registration No.	0105547063036
Head Office	587 Viriyathavorn Building, 20 th Floor, Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Registered Capital	660,675,000 ordinary shares, at the par value of Baht 10 per share. All shares fully paid-up, representing the total registered and paid-up capital of Baht 6,606,750,000.
The Company’s Shareholding Percentage	61.33 percent

Company Issuing Securities	Nam Ngum 2 Power Company Limited or “NN2”
Business Operation	Production and distribution of electricity from hydroelectric power
Registration No.	01-00006090
Head Office	215 Lane Xang Avenue, Ban Xiang Yuen, Chanthabuly District, Vientiane Province, Lao People’s Democratic Republic
Power Plant Location	Anouvong District, Xaysomboun, Lao People’s Democratic Republic
Registered Capital	880,900,000 ordinary shares, at the par value of Baht 10 per share. All shares fully paid-up, representing the total registered and paid-up capital of Baht 8,809,000,000.
The Company’s Shareholding Percentage	75 percent of its shares held by SEAN, or representing 46 percent of its shares held by the Company.

Company Issuing Securities	Bangpa-in Cogeneration Limited or “BIC”
Business Operation	Production and distribution of electricity and steam from the cogeneration system
Registration No.	0105552021486
Head Office	587 Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Power Plant Location	456 Moo 2, Tambon Khlong Chik, Amphoe Bang Pa-in, Phra Nakhon Si Ayutthaya Province
Registered Capital	270,500,000 ordinary shares, at the par value of Baht 10 per share. All shares fully paid-up, representing the total registered and paid-up capital of Baht 2,705,000,000.
The Company’s Shareholding Percentage	65 percent

Company Issuing Securities	Bangkhenchai Company Limited or “BKC”
Business Operation	Production and distribution of electricity from the solar power
Registration No.	0105541054485
Head Office	587 Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Power Plant Location	190 Moo 9, Tambon Khok Thai, Amphoe Pak Thong Chai, Nakhon Ratchasima Province
Registered Capital	2,342,500 ordinary shares, at the par value of Baht 100 per share. All shares fully paid-up, representing the total registered and paid-up capital of Baht 234,250,000.
The Company’s Shareholding Percentage	100 percent

Company Issuing Securities	Luang Prabang Power Company Limited or “LPCL”
Business Operation	Production and distribution of electricity from hydroelectric power
Registration No.	01-00021943
Head Office	Phonexay Road, Phonexay Village, Xaysettha District, Vientiane Capital, Lao People’s Democratic Republic
Power Plant Location	On the Mekong River, Luang Prabang Province, Lao People’s Democratic Republic
Registered Capital	4,150,000 ordinary shares, at the par value of KIP 2,000 per share or equivalence to Baht 7.711. All shares fully paid-up, representing the total registered and paid-up capital of Baht 32,000,000.
The Company’s Shareholding Percentage	42 percent

Company Issuing Securities	Xayaburi Power Company Limited or “XPCL”
Business Operation	Production and distribution of electricity from hydroelectric power
Registration No.	01-00013169
Head Office	215 Lane Xang Avenue, Ban Xiang Yuen, Chanthabuly District, Vientiane Province, Lao People’s Democratic Republic
Power Plant Location	On the Mekong River, Xayaburi Province and Luang Prabang Province, Lao People’s Democratic Republic
Registered Capital	2,686,100,000 ordinary shares, at the par value of Baht 10 per share. All shares fully paid-up, representing the total registered and paid-up capital of Baht 26,861,000,000.
The Company’s Shareholding Percentage	37.5 percent

Company Issuing Securities	Nakhon Ratchasima Solar Company Limited or “NRS”
Business Operation	Production and distribution of electricity from the solar power
Registration No.	0105553011344
Head Office	23/30 Sorachai Building, 14 th Floor, Soi Sukhumvit 63, Sukhumvit Road, North Klongton Subdistrict, Wattana District, Bangkok
Power Plant Location	90-91, Tambon Takhian, Amphoe Dan Khun Thot, Nakhon Ratchasima Province
Registered Capital	2,215,000 ordinary shares, at the par value of Baht 100 per share. 85.06 percent of which were already paid-up, representing the total registered and paid-up capital of Baht 188,425,000.
The Company’s Shareholding Percentage	30 percent

Company Issuing Securities	Chiangrai Solar Company Limited or “CRS”
Business Operation	Production and distribution of electricity from the solar power
Registration No.	0105553149036
Head Office	23/30 Sorachai Building, 14 th Floor, Soi Sukhumvit 63, Sukhumvit Road, North Klongton Subdistrict, Wattana District, Bangkok
Power Plant Location	249-250 Moo 6, Tambon Tha Khao Plueak, Amphoe Mae Chan, Chiang Rai Province
Registered Capital	2,917,500 ordinary shares, at the par value of Baht 100 per share. 95.01 percent of which were already paid-up, representing the total registered and paid-up capital of Baht 277,212,500.
The Company’s Shareholding Percentage	30 percent

Company Issuing Securities	CKP Solar Limited or “CKP Solar”
Business Operation	Development of electricity production business of various types
Registration No.	0105556138728
Head Office	587 Viriyathavorn Building, Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Registered Capital	200,000 ordinary shares, at the par value of Baht 100 per share. 28.75 percent of which were already paid-up, representing the total registered and paid-up capital of Baht 5,750,000.
The Company’s Shareholding Percentage	100 percent

Company Issuing Securities	Helios Power Limited or “Helios”
Business Operation	Development of electricity production business of various types
Registration No.	0105556152585
Head Office	587 Viriyathavorn Building, Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Registered Capital	10,000 ordinary shares, at the par value of Baht 100 per share. 25 percent of which were already paid-up, representing the total registered and paid-up capital of Baht 250,000.
The Company’s Shareholding Percentage	100 percent

Company Issuing Securities	Apollo Power Limited or “Apollo”
Business Operation	Development of electricity production business of various types
Registration No.	0105556152534
Head Office	587 Viriyathavorn Building, Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Registered Capital	10,000 ordinary shares, at the par value of Baht 100 per share. 25 percent of which were already paid-up, representing the total registered and paid-up capital of Baht 250,000.
The Company’s Shareholding Percentage	100 percent

Company Issuing Securities	Sole Power Limited or “Sole”
Business Operation	Development of electricity production business of various types
Registration No.	0105556152577
Head Office	587 Viriyathavorn Building, Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Registered Capital	10,000 ordinary shares, at the par value of Baht 100 per share. 25 percent of which were already paid-up, representing the total registered and paid-up capital of Baht 250,000
The Company’s Shareholding Percentage	100 percent

Company Issuing Securities	Vis Solis Limited or “Vis Solis”
Business Operation	Development of electricity production business of various types
Registration No.	0105556152526
Head Office	587 Viriyathavorn Building, Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok
Registered Capital	10,000 ordinary shares, at the par value of Baht 100 per share. 25 percent of which were already paid-up, representing the total registered and paid-up capital of Baht 250,000.
The Company’s Shareholding Percentage	100 percent

(3) Reference

Securities Registrar : **Thailand Securities Depository Co., Ltd.**
93 Rachadapisek Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400
Telephone: 02-009-9000
Fax: 02-009-9991

Auditor : **EY Office Limited**
193/136-137, 33rd Floor, Lake Rajada Office Complex, Rajadapisek Road, Klongtoey, Bangkok 10110
Telephone: 02-264-0777 / 02-661-9190
Fax: 02-264-0789-90

6.2 Other Significant Information

6.2.1 As at December 31, 2020, no information was found which was likely to materially affect the decision of investors.

6.2.2 In 2020, the Company issued debentures as follows:

Debt Instruments Offered for Sale in 2020	Issue Date	Maturity Date	Term	Value	Interest Rate	Credit Rating
Debenture No. 1/2020 - Tranche 1	November 25, 2020	November 25, 2022	2 years	Baht 1,000 Million	2.31% per annum	A- / Stable
Debenture No. 1/2020 - Tranche 2	November 25, 2020	November 25, 2023	3 years	Baht 1,500 Million	2.62% per annum	A- / Stable
Debenture No. 1/2020 - Tranche 3	November 25, 2020	November 25, 2027	7 years	Baht 1,500 Million ⁽¹⁾	3.76% per annum	A- / Stable

Remark: ⁽¹⁾ The Debentures may be redeemed at the option of the Issuer on the fourth anniversary of the Issue Date and at any Interest Payment Date thereafter.