

Part 1 Business Operations

1. Business Policy and Overview

Bangkok Expressway and Metro Public Company Limited (the “Company”) was incorporated from the amalgamation, pursuant to the Public Limited Company Act, between Bangkok Expressway Public Company Limited (“BECL”) and Bangkok Metro Public Company Limited (“BMCL”) on December 30, 2015, and the Company has assumed all assets, rights, duties and responsibilities of both companies by operation of law. As at December 31, 2016, the Company’s registered and paid-up capital amounted to Baht 15,285,000,000, divided into a total of 15,285,000,000 ordinary shares, at the par value of Baht 1 per share.

The Company’s businesses comprise the provision of the expressway and metro services, including commercial development relating to the expressway and metro systems, which will lay a foundation for business expansion through future extension of the network routes, both in the expressway and metro systems, thereby enabling the Company to be a leading mass rapid transit and transportation service operator in Thailand and in the region. In addition, the Company may extend its businesses to other fast-growing businesses with good returns, such as, other infrastructure projects, commercial development or real estate development, both at home and abroad, etc.

1.1 Business Overview of the Company

1.1.1 Expressway Business

The Company and one of its subsidiaries have been granted concessions for construction and operation of a total of four expressways, namely, (1) the Si Rat Expressway (Second Stage Expressway) under the Second Stage Expressway Agreement with the Expressway Authority of Thailand (“EXAT”) for a concession period of 30 years from March 1, 1990; (2) the Si Rat Expressway, Sector D, under the Agreement for the Extension of the Second Stage Expressway System, Sector D, with EXAT for a period of 30 years from April 22, 1997; (3) the Si Rat - Outer Ring Road Expressway under the Concession Agreement for Investment, Design, Construction, Operation, Service and Maintenance of the Si Rat - Outer Ring Road Expressway Project, with EXAT for a concession period of 30 years from December 15, 2012; and (4) the Udon Rattaya Expressway (Bang Pa-in - Pak Kret Expressway), operated by a subsidiary, namely, Northern Bangkok Expressway Company Limited (“NECL”) under the Bang Pa-in - Pak Kret Expressway Agreement with EXAT for a period of 30 years from September 27, 1996.

1) The Si Rat Expressway

The Company and EXAT jointly invested in the expressway system in Bangkok and its vicinity. The Company was responsible for investment in the construction and operation of the Si Rat Expressway, comprising 4 Sectors, namely, Sector A (Rama 9 - Ratchadapisek), Sector B (Phayathai - Bangkhlo), Sector C (Ratchadapisek - Chaeng Watthana) and Sector D (Rama 9 - Srinagarindra), covering a total distance of 38.5 kilometers. EXAT invested in the construction and operation of the Chalerm Mahanakorn Expressway (First Stage Expressway), covering a total distance of 27.1 kilometers.

As for toll collection, expressway users shall pay tolls at the booths around the on-ramps of the Expressway. EXAT is responsible for the collection of all tolls and shares such toll revenue with the Company as specified in the Second Stage Expressway Agreement with effect from the Priority Component Opening Date. The toll revenue from the Chalerm Mahanakorn Expressway and the Si Rat Expressway shall be encompassed and shared as per rules of area zoning. This is to say that in the urban network, for the first nine years, the Company and EXAT shall receive the revenue sharing at 60 percent and 40 percent, respectively. For the last nine years, the Company and EXAT shall receive the revenue sharing at 40 percent and 60 percent, respectively. As for the period between the first nine years and the last nine years, the Company and EXAT shall receive the revenue sharing at 50 percent each. For the suburban network, namely, Sector C and Sector D of the Si Rat Expressway, all toll revenue shall belong to the Company throughout the period of the Agreement.

2) The Si Rat - Outer Ring Road Expressway

The Company shall have the duty in design and construction, supply and installation of various equipment and systems, including the operation, service and maintenance of the expressway, together with toll collection, whereby the Company shall be responsible for investment and all operating expenses throughout the concession period, and share consideration with or provide benefits to the State to be agreed upon in the Concession Agreement.

The Company shall have the right to receive toll revenue and other revenues (if any) throughout the concession period, whereby the toll rates and revisions shall be agreed upon in the Agreement.

The Concession Agreement shall have a term of 30 years from December 15, 2012, whereby the operations shall be divided into two phases, as follows:

Phase 1: Design and construction of the expressway, supply and installation of electrical and mechanical system equipment, toll collection system, communications system and traffic controlling system, and other systems related to the expressway, for the construction period of not exceeding 48 months from December 15, 2012 as the date specified by EXAT in the Notice to Proceed (NTP);

Phase 2: Operation and provision of service, such as, toll collection, rescue operation and maintenance of the expressway, starting from the opening of the project until the end of the concession period.

The Company commenced construction on December 15, 2012, with the construction completion and opening for service on August 22, 2016.

Routes and Characteristics

The project is an elevated expressway with six traffic lanes, for a distance of 16.7 kilometers, with 10 toll plazas. The route starts from the Outer Ring Road (Kanjapisek Road around Mahasawat Water Treatment Plant) heading eastbound along the right of way of the existing Southern railway, crossing the Chao Phraya River around the Rama VII Bridge, ending around Bang Sue Grand Station (Chatuchak), connecting with the Si Rat Expressway around the Bus Terminal (Mo Chit 2), and running down to at-grade level around Kamphaeng Phet 2 Road.

3) The Udon Rattaya Expressway

NECL constructs and operates the Udon Rattaya Expressway, comprising 2 Stages, namely, Stage 1, Chaeng Watthana - Chiang Rak, and Stage 2, Chiang Rak - Bang Sai, connecting to the Si Rat Expressway around Chaeng Watthana Road, covering a total distance of 32 kilometers. As for the inbound route, expressway users shall pay tolls at the booths around the on-ramps of the expressway while in respect of the outbound route, expressway users shall pay tolls at the off-ramps. EXAT is responsible to collect and deliver all tolls to the subsidiary. All toll revenue in respect of the Udon Rattaya Expressway shall belong to the subsidiary.

1.1.2 Rail Business

The Company has been granted concessions for two mass rapid transit rail system projects from the Mass Rapid Transit Authority of Thailand (“MRTA”), namely, (1) the MRT Chaloem Ratchamongkhon Line Project (Hua Lamphong Station - Bang Sue Station) (MRT Blue Line Project), whereby the Company is entitled to fare box revenue and undertake activities and commercial development, including advertising, leasing space and telecommunications services in the metro stations and in the trains for a period of 25 years from July 2, 2004; and (2) the MRT Chalong Ratchadham Line Project, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section (Khlomg Bang Phai Station - Tao Poon Station) (MRT Purple Line Project), Contract 4: Concession for Supply of M&E Systems and O&M Services, whereby MRTA invests in all civil works and the Company invests in the M&E Systems and the rolling stocks, as well as provides the operation and maintenance services in accordance with the specified service standards. MRTA is entitled to all fare box revenue and commercial development revenue from the utilization of the civil infrastructure and the railway systems and MRTA shall make a gradual repayment of the M&E

Equipment to the Company on a monthly basis for a period of 10 years, and shall engage the Company for the O&M Services throughout the concession period of 30 years from September 4, 2013.

1.1.3 Commercial Development Business

The Company and one of its subsidiaries, namely, Bangkok Metro Networks Limited (“BMN”), operate the commercial development business of the MRT Blue Line Project for 1) procurement and/or production of advertising media of various forms in the trains and metro stations; 2) lease of retail spaces in the MRT Blue Line stations and spaces in the basement level of the Lat Phrao park and ride facility; and 3) provision of service and maintenance of telecommunications system equipment inside the metro stations. In addition, as for the expressways, the Company and NECL allowed private entities and individuals to use spaces for commercial operation for installation of Intelligent Traffic Signs and various advertising boards, including retail spaces around toll plazas, and other business activities, such as, the use of the expressway areas for installation of 3G signal boosters, etc.

1.1.4 Investment in Other Companies

The Company invests in the companies operating the public utility businesses, as follows: (1) CK Power Public Company Limited (“CKP”) operates its core business by holding shares in other companies (Holding Company) operating the business of production and distribution of energy of various types; (2) TTW Public Company Limited (“TTW”) operates the business of production and distribution of tap water to the Provincial Waterworks Authority and invests in companies which operate the business of other public utilities; and (3) Xayaburi Power Company Limited (“XPCL”) carries out construction and operation of the Xayaburi Hydroelectric Power Project.

1.2 Vision, Mission and Goals of Operations

1.2.1 Vision

The Company’s vision is:

“To become a leading, fully-integrated transportation service provider in Thailand and ASEAN.”

1.2.2 Mission

The Company is committed to:

1. Providing services of the expressway and metro systems with safety, convenience, rapidity, reliability, punctuality and efficiency, in order to improve the quality of people’s life;
2. Improving the quality and efficiency of the modern and full service transportation network in order to alleviate traffic problems, preserve the environment, and improve society and the country;
3. Creating value added and utmost benefit to shareholders based on fairness to all stakeholders.

1.2.3 Goals and Business Strategies

To achieve the Company’s objectives and mission, the Company has formulated major strategies in its business operations, as follows:

1. To invest in the transportation system projects, expressway and connecting road projects, metro system projects, and related projects under the government policy for public private partnership (PPP) in respect of infrastructure, including related business, such as, various commercial development, taking into consideration the projects which are beneficial to society and the country, with reasonable business yields;
2. To strengthen the businesses by generating revenues for continued growth, and managing costs and expenses efficiently, in order to maintain good financial standing;
3. To build relationships with stakeholders through the corporate social responsibility process and communicate with internal and external personnel about it;
4. To develop personnel ready for provision of quality services of the expressway and metro systems;
5. To build social recognition of the corporate good image.

1.3 Significant Changes and Developments

The Company was incorporated from the amalgamation, under the Public Limited Company Act, between BECL and BMCL on December 30, 2015. It operates the businesses of construction and operation of the expressways and operation of the metro system, including commercial development relating to the expressway and metro systems, whereby such businesses were transferred from BECL and BMCL by operation of law.

Significant Changes and Developments prior to the Amalgamation

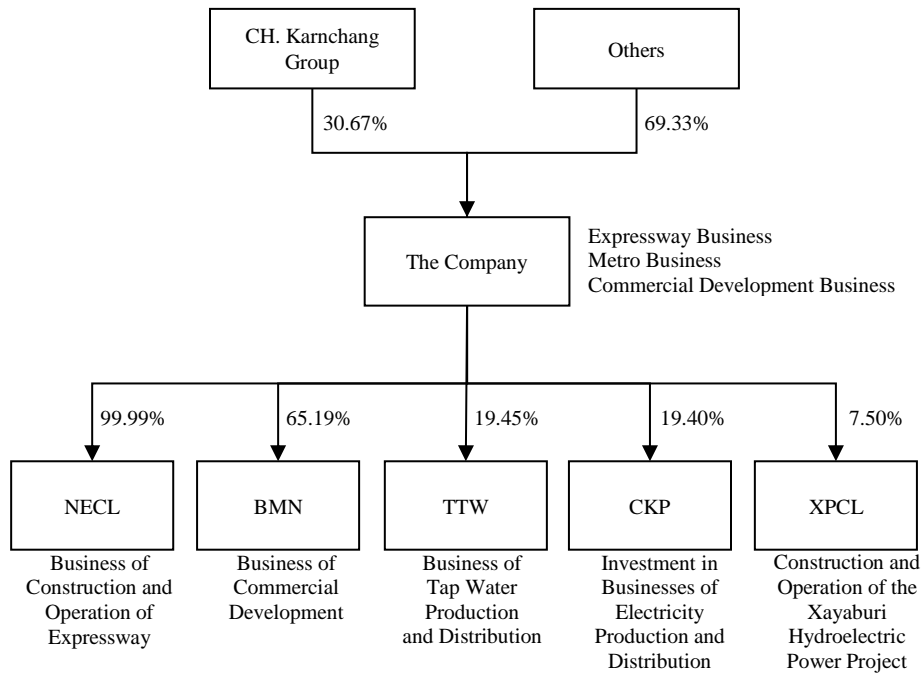
- BECL registered its incorporation on December 23, 1987 and listed on the Stock Exchange of Thailand (“Stock Exchange”) since August 31, 1995. Prior to the amalgamation, BECL’s registered and paid-up capital amounted to Baht 7,700,000,000, divided into 770,000,000 ordinary shares, at the par value of Baht 10 per share.
- On December 22, 1988, BECL entered into the Second Stage Expressway Agreement with the Expressway Authority of Thailand (EXAT) for construction and operation of the Si Rat Expressway for a concession period of 30 years from the commencing date of construction which was March 1, 1990.
- On September 25, 1996, BECL established Northern Bangkok Expressway Company Limited (NECL), whereby NECL entered into the agreement with EXAT for construction and operation of the Udon Rattaya Expressway (Bang Pa-in - Pak Kret Expressway) for a period of 30 years from the date of the Agreement which was September 27, 1996.
- On April 17, 1997, BECL entered into the Agreement for the Extension of the Second Stage Expressway System, Sector D, for construction and operation of the Si Rat Expressway, Sector D, with EXAT for a period of 30 years from the commencing date of construction which was April 22, 1997.
- On September 14, 2012, BECL entered into the Concession Agreement for Investment, Design, Construction, Operation, Service and Maintenance of the Si Rat - Outer Ring Road Expressway Project with EXAT for a concession period of 30 years from the date specified in the Notice to Proceed which was December 15, 2012.
- BMCL registered its incorporation on February 18, 1998, and was listed on the Stock Exchange since September 21, 2006. Prior to the amalgamation, BMCL’s registered and paid-up capital amounted to Baht 7,585,000,000, divided into 20,500,000,000 ordinary shares, at the par value of Baht 0.37 per share.
- BMCL entered into the Agreement for the MRT Blue Line Project with MRTA on a PPP Net Cost basis with AOT (Acquire Operate Transfer) method, and BMCL was entitled to fare box revenue and undertaking activities and commercial development, including advertising, leasing space and telecommunications services in the metro stations and in the trains for a period of 25 years, from July 2, 2004 to July 1, 2029. Under such Agreement, BMCL was obliged to make payment of remuneration from fares and commercial development to MRTA at the rates as mentioned in the Agreement.
- On February 25, 2009, BMCL established Bangkok Metro Networks Limited (BMN) by the amalgamation of three companies, namely, BMCL Network Limited, Metro Mall Development Limited, and Triads Networks Co., Ltd. BMN accepted the transfer of all three companies’ businesses, as well as all rights, duties, assets, liabilities and staff.
- On September 4, 2013, BMCL entered into the Agreement for the MRT Purple Line Project with MRTA for a period of 30 years on a PPP Gross Cost basis with ATO (Acquire Transfer Operate) method, namely, MRTA invested in all civil works and BMCL invested in the M&E Systems and the rolling stocks, provided that MRTA shall make a gradual repayment of the M&E Equipment to BMCL, and BMCL shall provide the O&M services in accordance with the service provision standards as specified in the Agreement. In this regard, MRTA is entitled to all fare box revenue and commercial development revenue from the utilization of the civil infrastructure and the railway systems and MRTA shall make payment to BMCL in the form of service fee for the O&M Services from the date of BMCL’s operation service until the end of the Concession Agreement.

Significant Changes and Developments of the Company in 2016

January 5, 2016	BEM securities were traded on the Stock Exchange of Thailand for the first day and were rated in SET100 Index, as well as selected for calculation in MSCI Global Index, a highly popular standard in measuring returns in international investment portfolios.
April 4, 2016	The Company received a credit rating at “A”, with “Stable” outlook from TRIS Rating Co., Ltd.
June 24, 2016	The Company issued and offered the debentures No. 1/2016, with a maturity of 3-12 years, in the amount of Baht 15,000 Million, at the fixed interest rates of 2.22 percent to 3.61 percent per annum, for use in replacement of loans from financial institutions under the financial restructuring plan and for use in investment in the Si Rat - Outer Ring Road Expressway Project.
July 1, 2016	BEM securities were rated in SET50 Index.
July 21, 2016	By virtue of Section 44 of the interim Constitution of the Kingdom of Thailand, the Head of the National Council for Peace and Order issued orders regarding the operations of the MRT Blue Line Project (Chaloem Ratchamongkhon Line), Hua Lamphong - Bang Sue Section, and the MRT Blue Line Extension Project, Hua Lamphong - Bang Khae Section and Bang Sue - Tha Phra Section, to ensure through operation of both systems as one network. The Selection Committee and the Monitoring Committee were required to jointly enter into negotiation with the concessionaire for the MRT Chaloem Ratchamongkhon Line Project to operate the Extension Project and amend the Agreement for Joint Investment of the MRT Chaloem Ratchamongkhon Line Project to ensure through operation as one network. At present, it is pending proposal to the Council of Ministers for further consideration.
August 6, 2016	The MRT Chalong Ratchadham Line Project (MRT Purple Line), Bang Yai-Tao Poon Section (Khlomg Bang Phai Station - Tao Poon Station) was opened for service.
August 22, 2016	The Si Rat - Outer Ring Road Expressway was opened for service.
August 22, 2016	NECL opened for service the Electronic Toll Collection System for the Udon Rattaya Expressway for the entire route.
October 21, 2016	The Company issued and offered the debentures No. 3/2016, with a maturity of 4-11 years, in the amount of Baht 8,000 Million, at the fixed interest rates of 2.62 percent to 3.95 percent per annum, for debt repayment upon due and for use as the Company’s working capital.
November 1, 2016	The Electronic Toll Collection Systems of EXAT and the Department of Highways were integrated, whereby the Easy Pass users and M-Pass users may pay tolls at toll booths in the Electronic Toll Collection lanes by using a single pass.
December 28, 2016	By virtue of Section 44 of the interim Constitution of the Kingdom of Thailand, the Head of the National Council for Peace and Order issued an order regarding the measures for solution to connection between the MRT Blue Line Project (the MRT Chaloem Ratchamongkhon Line), Hua Lamphong - Bang Sue Section, and the MRT Purple Line Project (the MRT Chalong Ratchadham Line), Bang Yai Tao Poon Section, whereby MRTA was required to engage a private business operator for installation of M&E Systems and provision of O&M Services to the MRT Blue Line, Tao Poon - Bang Sue Section, and was also required to use the negotiation results of the Committee for Selection of Private Entity to Participate in State Undertaking (Contract 5) of the MRT Purple Line Project, Tao Poon - Bang Sue Section, with BEM, including the relevant resolutions of the Council of Ministers, for consideration.

1.4 Shareholding Structure of Company Group

Chart of Shareholding Structure and the Company's Shareholding Percentage as at December 31, 2016



Remark : CH. Karnchang Group comprises

- 1) CH. Karnchang Public Company Limited,
- 2) CH. Karnchang-Tokyu Construction Company Limited,
- 3) Mahasiri Siam Co., Ltd., and
- 4) CH. Karnchang Holding Co., Ltd.

1.4.1 Investment in Subsidiaries and Other Companies

The Company has a policy on investment in businesses of infrastructure or businesses supporting the Company's operations and creating opportunity and long-term yields to the Company. The Company's investment as at December 31, 2016 was as follows:

(1) Names of Companies invested by the Company and its Shareholding Percentage

Unit: Million Baht

Names of Companies	Nature of Business	Registered Capital	Paid-up Capital	Shareholding Percentage	Investment Value at Cost
Subsidiaries					
Northern Bangkok Expressway Company Limited	Construction and operation of the Udon Rattaya Expressway	6,000	5,250	99.99%	2,604
Bangkok Metro Networks Limited	Operation of the commercial development business	254	254	65.19%	166
Other Companies					
CK Power Public Company Limited	Investment by holding shares in other companies (Holding Company) operating a business of electricity production and distribution	9,240	7,370	19.40%	3,223
TTW Public Company Limited	Tap water production and distribution	3,990	3,990	19.45%	4,277
Xayaburi Power Company Limited	Construction and operation of the Xayaburi Hydroelectric Power Project	26,861	16,505	7.50%	1,238

(2) Details of Companies Invested by the Company

Expressway Business

1. Northern Bangkok Expressway Company Limited ("NECL")

NECL's registered capital amounts to Baht 6,000 Million, divided into 294 million ordinary shares and 306 million preferred shares, at the par value of Baht 10 per share, with the paid-up capital of Baht 5,250 Million. As at December 31, 2016, the Company's shareholding was 99.99 percent of its registered capital. NECL entered into the Agreement with EXAT for construction and operation of the Udon Rattaya Expressway for a period of 30 years from September 27, 1996. The Udon Rattaya Expressway is northbound and continues from the Si Rat Expressway around Chaeng Watthana Road and passes Bang Phun, Chiang Rak and ends at Bang Sai.

Commercial Development Business

1. Bangkok Metro Networks Limited (“BMN”)

BMN has a total registered capital of Baht 254 Million, divided into 25.4 million ordinary shares, at the par value of Baht 10 per share, with the paid-up capital of Baht 254 Million. As at December 31, 2016, the Company’s shareholding in BMN was 65.19 percent of its registered capital.

BMN was established by the amalgamation of three companies, namely, BMCL Network Limited, Metro Mall Development Limited, and Triads Networks Co., Ltd. BMN accepted the transfer of all three companies’ businesses, as well as all rights, duties, assets, liabilities and staff.

BMN currently operates the business of procurement and production of advertising media of various forms in the metro stations and trains, lease of retail spaces in stations of the MRT Blue Line Project and at the basement level of the park and ride facility at the Lat Phrao Station, as well as providing service and maintenance of telecommunications system equipment in the stations and tunnels.

Other Infrastructure Businesses

1. CK Power Public Company Limited (“CKP”)

CKP is a listed company on the Stock Exchange, operating its main business by investing in other companies (Holding Company) which operate the business of electricity production and distribution. CKP has a total registered capital of Baht 9,240 Million, divided into 9,240 million ordinary shares, at the par value of Baht 1 per share, with the paid-up capital of Baht 7,370 Million. As at December 31, 2016, the Company’s shareholding was 19.40 percent of its registered capital. CKP invests in companies operating the business of electricity production and distribution from three types of energy, namely, hydropower business, by investing in SouthEast Asia Energy Limited and Xayaburi Power Company Limited; thermal power business (cogeneration system), by investing in Bangpa-in Cogeneration Limited; and solar power business, by investing in Bangkhenchai Company Limited, Nakhon Ratchasima Solar Limited, and Chiangrai Solar Limited.

2. TTW Public Company Limited (“TTW”)

TTW is a listed company on the Stock Exchange, having a total registered capital of Baht 3,990 Million, divided into 3,990 million ordinary shares, at the par value of Baht 1 per share, with the paid-up capital of Baht 3,990 Million. As at December 31, 2016, the Company’s shareholding was 19.45 percent of its registered capital. TTW operates the business of production and distribution of tap water to the Provincial Waterworks Authority in the areas of Nakhon Pathom Province and Samut Sakhon Province, under the Water Purchase and Sale Agreement with the Provincial Waterworks Authority for a period of 30 years from July 21, 2004. In addition, TTW invests in Pathum Thani Water Co., Ltd., representing 98 percent of its registered capital, which operates the business of tap water production and distribution in the areas of Pathum Thani and Rangsit, under the Water Purchase and Sale Agreement with the Provincial Waterworks Authority for a period of 25 years from October 15, 1998, and also invests in Thai Water Operations Company Limited, which operates the business of management and operation of tap water production and distribution systems and water treatment system, as well as invests in the energy business by holding shares in CKP representing 25 percent of its registered capital.

3. Xayaburi Power Company Limited (“XPCL”)

XPCL’s total registered capital is Baht 26,861 Million (at the exchange rate of USD 1 to Baht 34), with the paid-up capital of Baht 16,505 Million. As at December 31, 2016, the Company’s shareholding was 7.50 percent of its registered capital. XPCL’s main business is to operate the Xayaburi Hydroelectric Power Project, located on the Mekong River. The Xayaburi Hydroelectric Power Project is a run-of-river hydroelectric project, without water diversion from the Mekong River and without water impounding like other reservoir dams.

1.4.2 Relationship with Business Alliance of Major Shareholder

CH. Karnchang Plc. is the Company’s major shareholder. As at December 31, 2016, CH. Karnchang Plc. was holding 4,544,912,129 shares in the Company, representing 29.73 percent of the Company’s paid-up capital. From the past until the present, the Company engaged CH. Karnchang Plc. for construction and operation of various projects, as CH. Karnchang Plc. is a large construction company in Thailand, with potential, knowledge and expertise, and is familiar with the civil infrastructure of the expressway and metro projects, as well as M&E Equipment. In addition, CH. Karnchang Plc. has experience in the operation on a Lump Sum Turnkey basis, which enables it to deliver quality works timely, and is also the Company’s strategic investment partner, and as a result, CH. Karnchang Plc. has responsibility and commitment to operating the projects with success. Therefore, in the future, it is possible that the Company will engage CH. Karnchang Plc. for project construction or management. However, in the execution of transactions with CH. Karnchang Plc., which may have a conflict of interests, the Company will comply with its policy on execution of connected transactions per details as disclosed in Item 12. Connected Transactions.

Chart of Relationship with Business Alliance of Major Shareholder (the chart needs to be amend)**

