

**Opinion of the Independent Financial Advisor
Concerning the Connected Transaction**

(Supporting Document for Agenda 11 of
the 2023 Annual General Meeting of Shareholders)

of



**Bangkok Expressway and Metro
Public Company Limited**

The Independent Financial Advisor



Capital Advantage Company Limited

March 16, 2023

- TRANSLATION -

The English Translation of the Independent Financial Advisor's Opinion has been prepared solely for the convenience of foreign shareholders of Bangkok Expressway and Metro Public Company Limited and should not be relied upon as the definitive and official document. The Thai language version of the Independent Financial Advisor's Opinion is the definitive and official document and shall prevail in all aspects in the event of any inconsistency with this English Translation.

No. 020/2023

March 16, 2023

Subject: Opinion of the Independent Financial Advisor concerning the Connected Transaction of Bangkok Expressway and Metro Public Company Limited

Attention: Shareholders
Bangkok Expressway and Metro Public Company Limited

Attachment: Information and Credentials of Infra Asia (Thailand) Limited, an Independent Expert
Business overview and operating performance of Bangkok Expressway and Metro Public Company Limited is shown in Part 2 of the Information Memorandum on the Connected Transaction, Schedule 2 (Attachment 12), and Annual Registration Statement/Annual Report 2022 (Form 56-1 One Report) (Attachment 2), both of which are enclosed with the Notification of this Annual General Meeting of Shareholders.

Business overview and operating performance of CH. Karnchang Public Company Limited can be found on www.set.or.th and www.ch-karnchang.co.th.

References:

- 1) Resolutions of the Board of Directors' Meeting No. 1/2023 of Bangkok Expressway and Metro Public Company Limited, held on February 22, 2023;
- 2) Information Memorandum on the Connected Transaction of Bangkok Expressway and Metro Public Company Limited dated February 22, 2023;
- 3) Annual Registration Statement (Form 56-1) of Bangkok Expressway and Metro Public Company Limited for the year ended December 31, 2020 and Annual Registration Statement/Annual Report (Form 56-1 One Report) for the year ended December 31, 2021 - 2022;
- 4) Audited financial statements of Bangkok Expressway and Metro Public Company Limited for the 12-month period ended December 31, 2020 – 2022;
- 5) Annual Registration Statement (Form 56-1) of CH. Karnchang Public Company Limited for the year ended December 31, 2020 and Annual Registration Statement/Annual Report (Form 56-1 One Report) for the year ended December 31, 2021 - 2022;
- 6) Audited financial statements of CH. Karnchang Public Company Limited for the 12-month period ended December 31, 2020 – 2022;
- 7) The agreement to engage CH. Karnchang Public Company Limited as the contractor for maintenance services on civil & architecture and electrical & mechanical systems for the MRT Chalong Ratchadham Line Project (MRT Purple Line) dated November 17, 2015;
- 8) The agreement to engage CH. Karnchang Public Company Limited as the contractor for maintenance services on civil & architecture and electrical & mechanical systems for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Hua Lamphong Station – Bang Sue Station) dated November 17, 2015;
- 9) The agreement to engage CH. Karnchang Public Company Limited as the contractor for maintenance services on civil & architecture and electrical & mechanical systems for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Hua Lamphong Station – Bang Sue Station) which expand the scope of work to cover maintenance services on civil & architecture and electrical & mechanical systems for the MRT Blue Line Extension Project as well as the improvement and replacement of equipment in the electrical & mechanical systems and the extension of the contract period for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line);

- 10) The draft agreement to engage CH. Karnchang Public Company Limited as the contractor for maintenance services on civil & architecture and electrical & mechanical systems for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line);
- 11) Maintenance Cost Estimate Report for the maintenance services on civil & architecture and electrical & mechanical systems of the MRT Chalong Ratchadham Line Project (Klong Bang Phai Station – Tao Poon Station) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), dated February 2023, prepared by Infra Asia (Thailand) Limited¹;
- 12) Company Affidavit, Memorandum of Association, and other information and documents, as well as interviews with the management and relevant staffs of Bangkok Expressway and Metro Public Company Limited and CH. Karnchang Public Company Limited.

- Disclaimers:
- 1) Results of the study conducted by Capital Advantage Company Limited (the "Independent Financial Advisor" or the "IFA" or "CapAd") in this report are based on information and assumptions provided by management of Bangkok Expressway and Metro Public Company Limited and CH. Karnchang Public Company Limited, as well as information disclosed to the public on the websites of the Securities and Exchange Commission (www.sec.or.th) and the Stock Exchange of Thailand (www.set.or.th).
 - 2) The Independent Financial Advisor shall not responsible for profits or losses and any impacts resulting from the transactions.
 - 3) The Independent Financial Advisor conducted the study with knowledge, skills, and cautiousness in accordance with the professional ethics.
 - 4) The Independent Financial Advisor considered and provided its opinions based on the situation and information at the present time. If such situation and information change significantly, the study results in this report may be affected.

The Board of Directors' Meeting of Bangkok Expressway and Metro Public Company Limited (the "Company" or "BEM") No. 1/2023, held on February 22, 2023, has resolved to propose the 2023 Annual General Meeting of Shareholders, which will be held on April 18, 2023, to consider and approve agenda related to the connected transactions concerning the engagement of CH. Karnchang Public Company Limited ("CH. Karnchang" or "CK") as the contractor of maintenance services on civil & architecture and electrical & mechanical systems ("CEM") for the MRT Chalong Ratchadham Line Project ("MRT Purple Line Project") and the MRT Chaloem Ratchamongkhon Line Project ("MRT Blue Line Project") in the total amount of Baht 1,630 million (VAT exclusive), as per the following details:

- (1) Transaction 1: Extension of the CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Klong Bang Phai Station – Tao Poon Station Section)), including the replacement of equipment of some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), for another 10 years from the original term, or from November 1, 2023 to October 31, 2033,² in the total amount of Baht 1,150 million (VAT exclusive); and
- (2) Transaction 2: The replacement of equipment of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) by changing grout plugs and expansion rubbers in the tunnel wall between Bang Sue Station and Hua Lamphong Station, and the injection of additional Polyurethane Foam ("PU Foam"). The processes will take 2 years to complete at the approximate cost of Baht 480 million (VAT exclusive).

¹ Infra Asia (Thailand) Limited ("InfraAsia") is a company under Infra Asia Group, with offices in Hong Kong and Thailand. It has the team with extensive experience in cost estimation for rail projects and is widely-accepted by government agencies and corporates in Thailand and overseas. InfraAsia is the project advisor of the Mass Rapid Transit Authority of Thailand (MRTA), the State Railway of Thailand (SRT), and BTS Rail Mass Transit Growth Infrastructure Fund (BTSGIF). Please refer to the information and credentials of InfraAsia, an Independent Expert, in Attachment of this report.

² The original contract spans 7 years, 11 months and 14 days, from November 17, 2015 to October 31, 2023.

The aforementioned transactions are considered as connected transactions pursuant to the Notification of the Capital Market Supervisory Board No. TorChor. 21/2551 Re: Rules on Connected Transactions and the Notification of the Board of Governors of the Stock Exchange of Thailand Re: Disclosure of Information and Other Acts of Listed Companies Concerning the Connected Transactions B.E. 2546 (2003) (collectively referred to as the "Notifications on Connected Transaction"), as they are carried out with CK, one of the Company's major shareholders.³ The transaction size is equal to 4.38% of net tangible assets of the Company and its subsidiaries as of December 31, 2022, which is higher than 3% of net tangible assets of the Company and its subsidiaries. (The Company had not entered into any connected transaction with CK, which are not approved by the shareholders' meeting, in the previous 6 months prior to the date the Company's Board of Directors' Meeting passed the resolution to propose the shareholders' meeting to consider and approve these transactions.)

In this regard, the engagement of CK, the Company's major shareholder, for the aforementioned contract is considered as a connected transaction, categorized as normal business transaction without general commercial term, according to the Notifications on Connected Transaction.

Therefore, the Company is required to disclose information on the entering into the connected transaction to the Stock Exchange of Thailand ("SET") and appoint an independent financial advisor to render an opinion to the shareholders of the Company. It also must obtain approval from the shareholders' meeting with affirmative votes of at least three-fourths of the total votes of shareholders who attend the meeting and are eligible to vote, excluding shareholders with conflict of interests.

The Company has appointed Capital Advantage Company Limited as the independent financial advisor ("Independent Financial Advisor" or "IFA" or "CapAd") to render an opinion to shareholders concerning the reasonableness and appropriateness of price and conditions of the connected transaction.

CapAd has studied details of the Information Memorandum on the Connected Transaction of the Company, Annual Registration Statement/Annual Report 2022 (Form 56-1 One Report), and information from interviews with management and executives of the Company, as well as documents from the Company such as financial statements, appraisal reports on costs of the Project prepared by the independent expert, and other documents relevant to the transactions, including information disclosed to the public, information disclosed on websites of the SET and the Office of the Securities and Exchange Commission ("SEC"), and financial information available on various websites as a basis for rendering our opinion on such transaction.

The opinion of CapAd in this report is based on the assumption that all information and documents received from the Company's management are accurate and complete. CapAd is unable to assure or guarantee any accuracy or completeness of such information. In deriving its opinion, CapAd considered current operating environment and most up-to-date information at the time of this report. Any change or future incident may have a material impact on assessment and analysis of the Independent Financial Advisor, as well as shareholders' decision on such connected transaction.

In providing the opinion to shareholders, CapAd studied and analyzed information stated above by considering the reasonableness of the connected transaction and all relevant factors. CapAd has considered such information thoroughly and reasonably according to the professional standards for the best interests of shareholders.

The attachments to this report of the Independent Financial Advisor's opinion are deemed as integral parts of the report and are information that shareholders should consider in conjunction with this report.

After considering and studying all information on the connected transaction, CapAd would like to summarize the study results as follows:

³ According to the closing of the Company's share registration (XM) on March 9, 2023, CH. Karnchang owned 5,260,056,884 ordinary shares, or 34.413%, of the Company's total paid-up capital. In addition, Mr. Plew Trivisvavet, Mr. Phongsarit Tantisuvanitchkul, and Ms. Supamas Trivisvavet served as directors of the Company and CK.

Abbreviation	
The "Company" or "BEM"	Bangkok Expressway and Metro Public Company Limited
"CH. Karnchang" or "CK"	CH. Karnchang Public Company Limited
"MRTA"	Mass Rapid Transit Authority of Thailand
"MRT Chalong Ratchadham Line Project" or "MRT Purple Line Project"	MRT Chalong Ratchadham Line Project (MRT Purple Line), Bang Yai – Rat Burana: Bang Yai – Bang Sue section (Klong Bang Phai Station – Tao Poon Station)
"Concession Agreement for the MRT Purple Line"	Concession Agreement between the Company and the Mass Rapid Transit Authority of Thailand for the MRT Purple Line dated September 4, 2013
"MRT Chaloem Ratchamongkhon Line Project" or "MRT Blue Line Project"	MRT Project from Bang Sue Station to Hua Lamphong Station, Hua Lamphong Station to Lak Song Station, and Bang Sue Station to Tha Phra Station
"Concession Agreement for the MRT Blue Line"	Concession Agreement between the Company and the Mass Rapid Transit Authority of Thailand for the MRT Blue Line dated August 1, 2000 and March 31, 2017
"CEM"	Maintenance of civil & architecture and electrical and mechanical systems
"Existing CEM Contract"	The CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Klong Bang Phai Station – Tao Poon Station Section) for a period of approximately 8 years, from November 17, 2015 to October 31, 2023
"Transaction 1" or "New CEM Contract"	An extension of the CEM Contract for the MRT Purple Line Project (Klong Bang Phai Station – Tao Poon Station Section), including the replacement of equipment of some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), for another 10 years, from November 1, 2023 to October 31, 2033
"Transaction 2"	Replacement of equipment of the MRT Blue Line Project by changing grout plugs and expansion rubbers in the tunnel wall between Bang Sue Station and Hua Lamphong Station and injection of additional PU Foam
"Grout Plug"	Plugs for Grout Holes along the tunnel wall to prevent the reversal of the flow of void filling and grouting materials
"Omega Joint"	Area around a joint between structures with different degrees of displacement or collapse, e.g. a joint between the station structure and the tunnel, where Omega Seal is installed
"PU Foam"	Polyurethane foam is frequently used to patch construction-related holes, fractures, and gaps; or the location of the water leak. It has a service life of approximately 10 years and is strong, resilient, and heat and cold insulated, watertight, leakproof, soundproof, shockproof, resistant to acid and alkali, and non-flammable.
"Independent Expert" or "InfraAsia"	Infra Asia (Thailand) Limited, an independent expert
"Independent Financial Advisor" or "IFA" or "CapAd"	Capital Advantage Company Limited
"SEC"	The Securities and Exchange Commission, Thailand
"SET"	The Stock Exchange of Thailand
"Notifications on Connected Transaction"	The Notification of the Capital Market Supervisory Board No. TorChor. 21/2551 Re: Rules on Connected Transactions and the Notification of the Board of Governors of the Stock Exchange of Thailand Re: Disclosure of Information and Other Acts of Listed Companies Concerning the Connected Transactions B.E. 2546 (2003) and its amendments
"NTA"	Net Tangible Assets

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Attachment: Information and Credentials of Infra Asia (Thailand) Limited, the Independent Expert

Executive Summary

Bangkok Expressway and Metro Public Company Limited ("the Company" or "BEM") has been granted concessions for 2 mass rapid transit system projects from the Mass Rapid Transit Authority of Thailand ("MRTA"), namely the MRT Chaloe Ratchamongkhon Line Project (MRT Blue Line) ("MRT Blue Line Project") and the MRT Chalong Ratchadham Line Project (MRT Purple Line) ("MRT Purple Line Project"). Apart from train service operation, the Company is also responsible for maintenance services on civil & architecture and electrical & mechanical systems ("CEM"). It has engaged CH. Karnchang Public Company Limited ("CK") as the contractor of CEM maintenance services for such projects, with the service contract for the MRT Purple Line Project to expire in October 2023. To facilitate continuity of the administration of the CEM services for the MRT Purple Line Project, the Company accordingly desires to extend the term of such service contract for another 10 years.

At the same time, the Company needs to engage a contractor for replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Blue Line Project (Bang Sue Station - Hua Lamphong Station Section), as a consequence of the past tunnel construction technology and the deterioration according to useful life of the expansion rubbers, which has been in use since the start of train operation, resulting in leakage of water and sand into the tunnel. Therefore, the Company will have to change the grout plugs and expansion rubbers, and reinject PU Foam into the tunnel wall where earlier changes were made and where new leakages are discovered.

The Company recognizes CK's capability, experience, knowledge and skill in such tasks, which will be beneficial to the Company.

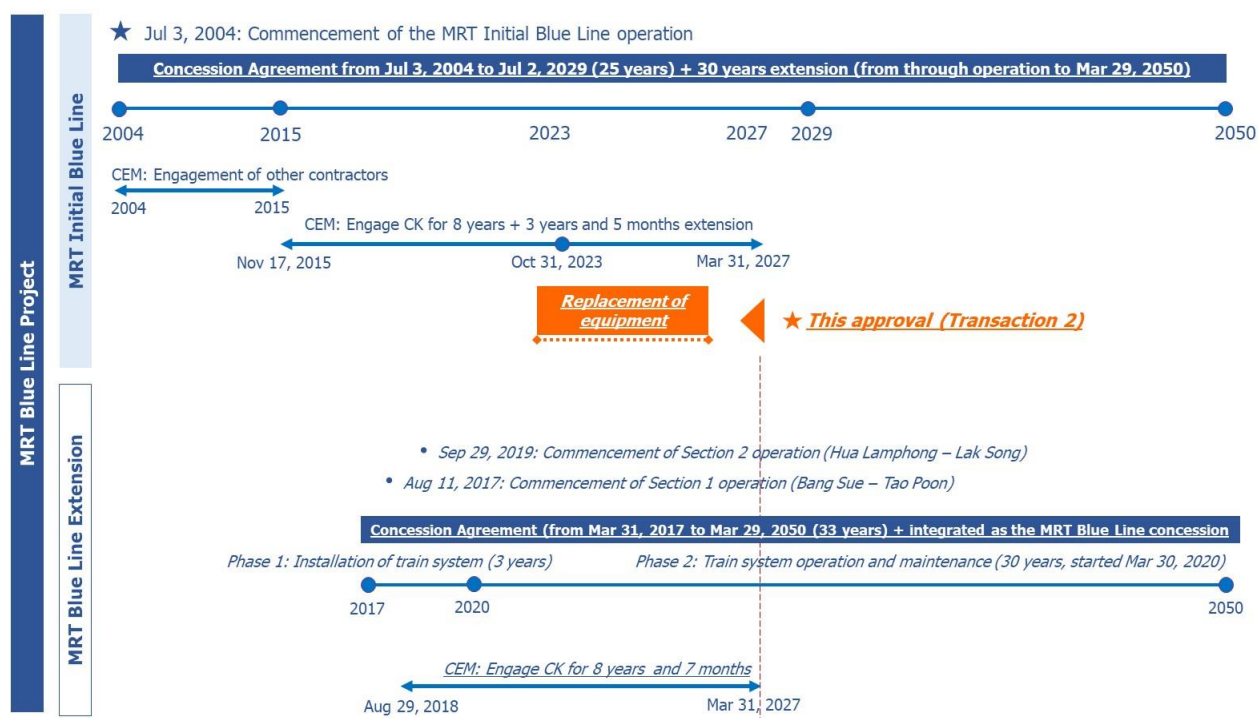
Therefore, the Board of Directors' Meeting of the Company No. 1/2023, held on February 22, 2023, has resolved to propose the 2023 Annual General Meeting of Shareholders, which will be held on April 18, 2023, to consider and approve agenda related to the connected transactions concerning the engagement of CK as the contractor of maintenance services on civil & architecture and electrical & mechanical systems (CEM) for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloe Ratchamongkhon Line Project (MRT Blue Line) in the total amount of Baht 1,630 million (VAT exclusive), as per the following details:

- (1) **Transaction 1:** Extension of the CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Khlong Bang Phai Station – Tao Poon Station Section), including the replacement of equipment of some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), for another 10 years from the original term, or from November 1, 2023 to October 31, 2033,⁴ in the total amount of Baht 1,150 million (VAT exclusive); and
- (2) **Transaction 2:** The replacement of equipment of the MRT Chaloe Ratchamongkhon Line Project (MRT Blue Line) by changing grout plugs and expansion rubbers in the tunnel wall between Bang Sue Station and Hua Lamphong Station, and the injection of additional Polyurethane Foam ("PU Foam"). The processes will take 2 years to complete and cost approximately Baht 480 million (VAT exclusive).

Overview of the MRT Purple Line Project, the MRT Blue Line Project, and CEM Services



⁴ The existing contract spans 7 years, 11 months and 14 days, from November 17, 2015 to October 31, 2023.



The aforementioned transactions are considered as the connected transaction pursuant to the Notifications on Connected Transaction because they are carried out with CK, the Company's major shareholder. The transaction size is equal to 4.38% of net tangible assets of the Company and its subsidiaries as of December 31, 2022, which is higher than 3% of net tangible assets of the Company and its subsidiaries. *(The Company had not entered into any connected transaction with CK, which are not approved by the shareholders' meeting, in the previous 6 months prior to the date the Company's Board of Directors' Meeting passed the resolution to propose the shareholders' meeting to consider and approve these transactions).*

In this regard, the engagement of CK, the Company's major shareholders, for the aforementioned contract is considered as a connected transaction, categorized as normal business transaction without general commercial term, according to the Notifications on Connected Transaction.

Therefore, the Company is required to disclose information on the entering into the connected transaction to the SET and appoint an independent financial advisor to render an opinion to the shareholders of the Company. It also must obtain approvals from the shareholders' meeting with affirmative votes of at least three-fourths of the total votes of shareholders who attend the meeting and are eligible to vote, excluding shareholders with conflict of interests.

The Company has appointed Capital Advantage Company Limited as the independent financial advisor ("Independent Financial Advisor" or "IFA" or "CapAd") to render an opinion concerning reasonableness and appropriateness of prices and conditions of the connected transaction. CapAd has considered objectives and necessities of the transactions, as well as their advantages, disadvantages, benefits, and risks as follows:

The Company's main business is administering and providing the metro system services and the expressway network under the concession agreements, as well as pursuing commercial developments on those concessions.

The Company has been granted concessions for operation of 2 metro system projects from the Mass Rapid Transit Authority of Thailand ("MRTA"), comprising of (a) the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which has been under the Company's management since 2000 for the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station), and the MRT Blue Line Extension Project (Bang Sue Station – Tha Phra Station and Hua Lamphong Station – Lak Song Station), which completed the MRT Blue Line Project on March 30, 2020 and marked the beginning of Through Operation, and (b) the MRT Chalong Ratchadham Line Project (MRT Purple Line), which has been under the Company's management since 2013 and commenced commercial operation on August 6, 2016.

The Company is committed to operating the electric train services with efficiency, safety, rapidity, convenience, reliability, and punctuality. To ensure that the metro system service operation and maintenance are carried on uninterrupted and efficiently, together with its expertise, the Company therefore undertakes the operation by itself. Since maintenance services are specialized tasks that require a large number of specialists, the Company has a policy to outsource CEM administration to a third party, who has expertise in CEM, and concurrently develop its employees' skills in simple CEM maintenance works.

Since 2004, the Company engaged several contractors for CEM services for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) via open bidding process. It encountered problems in maintenance services and had conflicts with those contractors, mostly resulting from denial of responsibilities from some of the service providers, who cited the damage to CEM being caused by construction contractors which was out of their scope of work. The Company wasted a lot of time and manpower in negotiation with them and incurred expenses in addition to the value of maintenance works under the contract on many occasions. Therefore, the Company has a policy to outsource a third party, who is specialized in civil & architecture and electrical & mechanical systems, to be the sole contractor to undertake the CEM services for the MRT Blue Line Project in order to solve such issue. In 2015, the Company engaged CK as the contractor of the CEM services for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) in place of the former contractor, including the engagement of CK as the contractor of the CEM services for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) and the MRT Chalong Ratchadham Line Project (MRT Purple Line) on a fixed fee basis. Consequently, the Company has been able to control maintenance costs and reduce difficulties in coordination with the contractor, as well as eliminated the conflicts with service providers. Throughout the period it has undertaken the contract to present, CK has performed its duties smoothly in accordance with the scope and terms of the contract.

Therefore, in order to facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) and comply with the Company's policy to outsource a third party, who is specialized in civil & architecture and electrical & mechanical systems, to administer maintenance service as it requires a large number of specialists (the Company has undertaken simple CEM maintenance works, including procurement of parts, supplies, and basic maintenance equipment under the management and knowledge transfer from the service contractor), as well as to leverage CK's current role as the contractor of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) since November 2015, with capable personnel and familiarity with the MRT Project's working system (such as security, procedure to access working areas, and time to conduct maintenance services), which has been strictly specified by MRTA, the Company accordingly decides to engage CK as the contractor of the CEM services as follows:

Transaction 1: Extension of the CEM Contract the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Klong Bang Phai Station – Tao Poon Station Section)

The aims of engaging CK as the contractor are to facilitate continuity and stability of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) under the same contractor as the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), both of which are connected at Tao Poon Station, to harmonize the maintenance services plan of the Company, to operate the train system efficiently and smoothly, to simplify the management of only one administrator instead of dealing with several ones, and to reduce coordination effort, risk, and problems that may impact train operation. The CEM services are critical to the reliability of train operation in order to provide service with no interruption for all 365 days in a year; and

Transaction 2: The replacement of grout plugs and expansion rubbers in the tunnel wall in the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Bang Sue Station - Hua Lamphong Station Section)

There will be a change of grout plugs and expansion rubbers in the tunnel wall and additional injection of PU Foam,⁵ which is the civil infrastructure of the MRT Chaloem Ratchamongkhon Line Project

⁵ Scope of work specified in the Existing CEM Contract, which will expire on March 31, 2027, stipulates the types of work relating to the maintenance of civil infrastructure, namely the preventive maintenance and corrective maintenance, which do not cover the replacement of grout plugs and rubber waterstops of the tunnel wall that is the replacement of equipment at the end of useful life in order to prevent the effect on service operation and safety.

(MRT Blue Line) (Bang Sue Station - Hua Lamphong Station Section), that has been in use for nearly 19 years (since the commencement of commercial operation on July 3, 2004). Moreover, the expansion rubbers are wearing out and will relatively cause seepages of water and sand into the tunnel. The Company had changed the grout plugs and expansion rubbers and reinjected the PU Foam to improve leakage prevention at 24,000 points (the maintenance at the leakage point, by which the Company gradually replaced the grout plugs and expansion rubbers and injected PU Foam since 2009 by the contractor who is not CK, with the performance guarantee period of 6 months) out of the total 194,000 points (the Company, by the CEM contractor, has periodically checked the tunnel wall of the MRT projects in order to prevent train operation from the damages. The contractor has informed the Company regarding the result of the survey so that the Company can prepare maintenance plan and budget for the replacement of grout plugs and expansion rubbers and the injection of additional PU Foam at the points with history of leakage (replacement of deteriorated equipment) and the points where additional leakage are found, which is the work that the Company has to responsible for additional expenses that may arise). However, as the expansion rubbers and PU Foam have a useful life of 10 years, the Company therefore needs to change the grout plugs and expansion rubbers and reinject the PU Foam in the same areas (24,000 points) and the areas where new seepages are found (24,000 points), totaling 48,000 points, to enhance the prevention of water and sand leakages into the tunnel, which will otherwise interrupt the train system and train operation. CK, who was the contractor of CEM services and involved in the procurement, installation, and testing of M&E equipment, is therefore well acquainted with the civil infrastructure and systems of the MRT Blue Line Project.

Advantages and benefits of the entering into the Connected Transaction are as follows:

Advantages and Benefits Relating to the Entering into the Two Transactions (Transaction 1 and Transaction 2)

- (1) The CEM service contractor (CK) is a large construction contractor with knowledgeable and competent staff and first-hand experience and expertise in works relating to the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), as well as other electric train projects, is well-prepared in all aspects for the administration of the CEM services for the Company under Transaction 1 and Transaction 2.
- (2) The CEM contractor (CK) will perform the tasks at full capacity, without abandoning the job, in order to preserve its investment value in the Company. On the contrary, if the transaction is executed with a third party, it may not pay full attention to the quality of work or may abandon the job with no concern about a longstanding relationship.
- (3) The CEM service contractor (CK) has no record of job abandonment and has strong financial position and adequate liquidity for its business in order to ensure the smooth operation of the project. In addition, CK is one of the construction companies that can carry out construction work that is complicated and requires sophisticated technology, such as the construction of large-scale infrastructure projects. Therefore, the Company is confident that the contractor will be able to deliver the work under the CEM Contract and will not abandon the work.
- (4) The coordination and operation will be flexible. The Company will be able to negotiate and agree on all conditions and details with CK, as well as facilitate the coordination and operation, rapidly and flexibly since the professional team of CK and the Company have worked together on numerous projects and are well acquainted with one another. Obstacles to their working together throughout the contract period can also be eliminated.
- (5) The Company will be able to achieve on-budget targets for CEM. As such, the Company will be able to control the CEM budgets over the 10-year contract term of the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the cost of equipment replacement over the 2-year term of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). Such scope of work is in line with those outlined in the Concession Agreements of the MRT Purple Line Project and the MRT Blue Line Project with the MRTA, and under the requirements of the Company.
- (6) The Company will indirectly benefit from CK's protection of confidential technical information and other crucial information of the electric train projects, especially the metro system, within the group, which will be substantially beneficial to the Company's competitiveness.

In addition, the Company can reduce burden on employing workforce and managing a large number of specialists for CEM services.

Specific Advantages and Benefits of Transaction 1

- (7) This will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) of the existing contractor. Thus, the extension of the CEM Contract with CK (Transaction 1), which is the existing contractor and is familiar with the tasks in all respects, will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) over the next 10 years.
- (8) The service contractor is acquainted with the CEM and train system of the MRT Chalong Ratchadham Line Project (MRT Purple Line) as it is engaged by the MRTA as the construction contractor for civil works, including the procurement, installation and trial-run of electric train system. Therefore, it possessed information relevant to the design and construction processes, which enable CK to timely analyze any failures and implement corrective measures and would be considerably useful for the CEM and the replacement of equipment in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)).
- (9) This will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which are under through operation. The Company and the contractor will be able to efficiently devise a maintenance plan for all relevant systems, and the maintenance plan implementation, which includes the equipment replacement in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), can be carried out with greater efficiency than by hiring several contractors to handle such tasks.

Specific Advantages and Benefits of Transaction 2

- (10) The replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) will enhance water and sand leakage prevention in the tunnel and cushion against any unexpected risk. This will further enhance the Company's train service efficiency.
- (11) The CEM contractor (CK) under Transaction 2 is deeply familiar with the civil works of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) since it was earlier engaged by MRTA under several contracts to undertake the design and construction of civil infrastructure (including civil works, underground stations, tunnels, train systems) of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), as well as the Bang Sue Station – Hua Lamphong Station Section. As a result, it possesses information relevant to the design and construction process and technology, and is acquainted with the tunnel structure and possible issues along with associated corrective measures, enabling it to promptly devise a work plan and efficiently perform the tasks.

The entering into Transaction 1 and Transaction 2, which are connected transactions, has the following disadvantages and risks.

- (1) The Company will depend on CK as the sole contractor of the CEM services. The engagement of a sole contractor of the CEM services will result in the Company relying on only one party for the CEM services and expose it to an operational risk in case that the contractor is unable to perform the tasks under the agreements. However, the Company will start to undertake the simple CEM activities under the management of and knowledge transfer from the contractor, which can reduce such risk to a certain extent. In this regard, the Company has to mitigate the risk arising from the engagement of new contractor or sub-contractors in order to avoid problems as previously occurred.
- (2) The Company has to continuously rely on CK.
- (3) The Company has no opportunity to compare CK's proposal for the CEM services with other service providers. The engagement of CK in Transaction 1 is the engagement of existing contractor of CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) in order to facilitate continuity and consistency of the CEM services for the whole MRT system operated by the Company while Transaction 2 is part of the current CEM service administration for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). CapAd has reviewed the consideration to be paid to the contractor of CEM services and found that the consideration for Transaction 1 and Transaction 2 is below the cost estimation by the Independent Expert (InfraAsia).

- (4) The transaction with CK is considered as a large transaction according to the connected transaction criteria, whereby the Company is required to seek for an approval for the connected transaction and appoint an independent financial advisor to provide opinion to its shareholders, thus incurring additional expenses and necessitating disclosure of the project's cost and maintenance details.

Potential impacts on the Company in case that the Company does not enter into the transactions with CK (the connected person)

Potential impacts on the Company in case that the Company does not enter into the transactions (Transaction 1 and Transaction 2) with CK, the Company's connected person, are as follows:

- (1) The Company has to engage another CEM contractor for the MRT Chalong Ratchadham Line Project (MRT Purple Line) to replace CK, which is not considered as the breach of the Existing CEM Contract with CK, whereas
- The Company has to prepare the Term of Reference (TOR) to procure and select new CEM contractor who can continue the works from CK under the standard of work equivalent to that of CK in order not to affect the train operation and maintenance, according to the scope of maintenance works specified in the Concession Agreement for the MRT Purple Line between the Company and MRTA dated September 4, 2013.
The Company may proceed with such selection either in the open bidding or by specific consideration of each contractor, which will consume time. Moreover, there shall be additional costs associated with the bidding and selection and the Company has to disclose scope of work to the third parties publicly, all of which create negative impact on the Company.
 - The new CEM contractor will not be as familiar with civil infrastructure and work systems as CK, the current contractor. Thus,
 - (a) The new CEM contract has to study the works in order to comprehensively familiar with the operation system of the project in detail, including technical aspects, security procedure, procedure to access working areas, and time to conduct maintenance service, which has been strictly specified by the MRTA; and
 - (b) The new CEM contractor must send its employees to attend specified training courses so that their personnel can apply for permit to access the work area according to the criteria set by the Company. Alternatively, the Company must send its qualified employees to supervise the works, leading to the increase of operating costs. In addition, the Company may incur the risk that may arise from the unfamiliarity of the contractor's employees with the relevant systems which cause the damages to other equipment installed in the area.
If the new CEM contractor is able to efficiently work in accordance with the scope of work, the Company will have more potential contractor who can support the Company's projects.
 - Working teams of the Company and the new CEM contractor will require a longer period of time to adapt to work together than working with CK, including management and knowledge transfer according to the specified scope of work.
- (2) If the Company does not engage the new CEM contractor as described in (1) above, the Company will have to engage sub-contractors for each task, as well as manage the overall CEM works by itself, which may face the same problems as previously occurred (*Please refer to details in Part 2, Clause 1 of this report*). In addition, the Company will incur additional costs from the selection process of sub-contractors and the increase of the Company's personnel to responsible for overall project management instead of CK.
- (3) The Company will have to engage new contractor to replace the grout plugs and expansion rubbers of the tunnel wall, as well as inject additional PU Foam, who will be the different entity from the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which is not considered as the default of the Existing CEM Contract with CK, whereas
- The Company has to prepare the Term of Reference (TOR) to procure and select the new contractor who understand the civil infrastructure and required techniques, which will consume some period of time, resulting in delay of the maintenance work from the schedule (May 2023). As such, the Company will have more burden and incur the risk in case that the delay maintenance may affect the train operation.
 - The other contractors must send its employees to attend specified training courses so that their personnel can apply for permit to access the work area according to the criteria set by the Company. Alternatively, the Company must send its qualified employees to supervise the works,

leading to the increase of operating costs. In addition, the Company may incur the risk that may arise from the unfamiliarity of the contractor's employees with the relevant systems which cause the damages to other equipment installed in the area.

The Company and the contractors must cooperate with each other to appropriately plan the maintenance in order to minimize the problem relating to the access and redundant work in the same area as CK, who is the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line).

- The engagement of new contractor, who is a different entity from CK (the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), leads to the addition of external teams to recognize and gain experience in the civil infrastructure of the metro system, which may not be beneficial for retaining the Company's techniques and competitiveness.
- The Company may not be able to control costs as currently budgeted because the budget proposed by CK is the one that relies on the bargaining power of CK (which is a large contractor) with the suppliers, allowing it to set the maintenance cost within such limit which is still lower than the cost estimated by the Independent Expert (InfraAsia).

The Appropriateness of the Conditions of the Draft CEM Contract with CK

After considering the conditions of the Draft CEM Contract with CK, the Independent Financial Advisor is of the opinion that conditions of the relevant agreements are appropriate and in the normal course of business. The scope of work and responsibilities under the CEM Contract with CK that supports the CEM services is in line with the Concession Agreements with the MRTA.

After considering the objectives and necessities of the transaction as well as advantages, disadvantages, benefits, risks, and the potential impacts, the Independent Financial Advisor is of the opinion that the Company and CK will gain more benefits in business operations, with limited disadvantages and risks. The Company can focus on running the most efficient train operation without having to worry about CEM works pertaining to the Company's policy. Therefore, **the entering into the connected transaction is reasonable.**

The opinion of the Independent Financial Advisor regarding the appropriateness of the price of the connected transaction is as follows:

Transaction 1: The Extension of the CEM Contract for the MRT Purple Line Project

Cost estimation for the CEM services of the MRT Purple Line Project by InfraAsia can be summarized as follows:

(Unit: Baht million)

	CEM Services of the MRT Purple Line Project	Cost Estimation by InfraAsia	Consideration to be Paid to CK
		10 years (November 1, 2023 – October 31, 2033)	
1	Fire alarm and protection	28.23	
2	Lift and escalators	658.03	
3	Environmental control systems	51.02	
4	Low voltage electrical distribution and lighting systems	69.90	
5	Civil structures and architecture	27.02	
6	Walk-through metal detector	21.59	
7	Management, consumables, and engineering staffs	94.93	
	Sub-total of 1 - 7	950.71	
8	Overhead and others ^{1/}	115.61	
9	Profit ^{2/}	95.07	
10	Contingency ^{3/}	47.54	
	Total CEM costs	1,208.92	1,150.00^{4/}
	Average CEM costs per year	120.89	115.00

Remark: Estimated based on InfraAsia's database, equipment price from suppliers, and information derived from BEM.

- 1/ Comprising of overhead, insurance premium, and other expenses, accounting for approximately 12.16% of total material and labor costs (Sub-total 1 - 7 from the above table), divided into (a) overhead of approximately 10% of total material and labor costs, (b) insurance premium of approximately 2 % of total material and labor costs, and (c) vehicles and fuel costs.
- 2/ Profit is estimated at 10% of total material and labor costs (Sub-total 1 - 7 from the above table), which is in line with the industry standard.
- 3/ Contingency is estimated at 5% of total material and labor costs (Sub-total 1 - 7 from the above table).
- 4/ Consideration for the engagement of CK is on the lump sum basis (no detailed value of each task).

The Independent Financial Advisor views that the cost estimation model of InfraAsia, which has been developed and used in numerous public and private railway projects and widely-accepted by government agencies, railway operators, and main contractors, is acceptable and reliable. *(Please refer to credentials of InfraAsia in Attachment of this report)* In addition, InfraAsia has updated its assumptions to be consistent with the historical performance and maintenance works of the MRT Purple Line Project as well as technical documents provided by the Company which have been accumulated for several years. InfraAsia has also reviewed the data as far as practicable and see no obvious issues related to its use.

Conclusively, the Independent Financial Advisor is of the opinion that the appropriate approach to determine fair value of the transaction is the comparison with the cost estimation by InfraAsia, which is equal to Baht 1,208.92 million (VAT exclusive) since InfraAsia is the expert with knowledge and experience in determining value of CEM works of the electric railway projects and it is the appraisal of CEM works of the MRT Purple Line Project in accordance with the scope of service of the Company.

When comparing the proposed consideration to be paid to CK for the CEM services for the MRT Purple Line Project (Baht 1,150 million (VAT exclusive)) and the estimated costs for the CEM service prepared by InfraAsia (Baht 1,208.92 million (VAT exclusive)), the consideration to be paid to CK is lower than the estimated costs (by InfraAsia) by Baht 58.92 million, or lower by 4.87% of the estimated costs by InfraAsia. Thus, **the consideration to be paid to CK for Transaction 1 is appropriate.**

Transaction 2: Replacement of the Grout Plugs and Expansion Rubbers of the Tunnel Wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section)

Cost estimation for the replacement of grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section) is summarized as follows:

(Unit: Baht million)

	Replacement of Grout Plugs and Expansion Rubbers of the Tunnel Wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section)	Cost Estimation by InfraAsia	Consideration to be Paid to CK
		2 years and 3 months (2 years of maintenance period and 3 months of mobilization period)	
1	Equipment	13.59	
2	Materials	175.67	
3	Transportation	10.12	
4	Electricity (Tunnel lightings and equipment)	2.03	
5	Manpower	180.22	
6	Work compound stores & offices	3.11	
	Sub-total 1 - 6	384.72	
7	Overhead and insurance premium ^{1/}	46.17	
8	Profit ^{2/}	38.47	
9	Contingency ^{3/}	23.47	
Total maintenance cost of civil works		492.83	480.00^{4/}

Remark: Estimated based on InfraAsia's database, equipment prices from suppliers, and information derived from BEM.

1/ Comprising of overhead and insurance premium, accounting for approximately 12% of total material and labor costs (Sub-total 1 - 6 from the above table), divided to (a) overhead of approximately 10% of total material and labor costs and (b) insurance premium of approximately 2.0% of total material and labor costs.

2/ Profit is estimated at 10% of total material and labor costs (Sub-total 1 - 6 from the above table), which is in line with the industry standard.

3/ Contingency is estimated at 6% of total material and labor costs (Sub-total 1 - 6 from the above table).

4/ Consideration for the engagement of CK is on the lump sum basis (no detailed value of each task).

Conclusively, the Independent Financial Advisor is of the opinion that the appropriate approach to determine fair value of the transaction is the comparison with the cost estimation by InfraAsia, which is equal to Baht 492.83 million (VAT exclusive) since InfraAsia is an independent expert with knowledge and experience in determining value of the CEM works of various rail projects and it is the appraisal of CEM works of the MRT Blue Line Project in accordance with the scope of work of the Company.

When comparing the proposed consideration to be paid to CK for the replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section) (Baht 480.00 million (VAT exclusive)) and the estimated costs for the CEM service prepared by InfraAsia (Baht 492.83 million (VAT exclusive)), the consideration to be paid to CK is lower than the estimated costs (by InfraAsia) by Baht 12.83 million, or lower by 2.60% of the

estimated costs by InfraAsia. Thus, **the consideration to be paid to CK for Transaction 2 is appropriate.**

When considering reasonableness of the connected transactions and the appropriateness of price and conditions of such connected transactions, **the Independent Financial Advisor opines that shareholders should approve the entering into the connected transactions.**

The shareholders should study information in the documents attached to the notification of the shareholders' meeting prior to making the decision. The consideration to approve the connected transactions rests primarily on and is the sole discretion of the shareholders.

CapAd, as the Independent Financial Advisor, hereby certifies that the above opinion is rendered with due care in accordance with the professional standards for the benefits of shareholders.

Details of the Independent Financial Advisor's opinion are as follows:

Part 1: General Details of the Connected Transaction

1. Characteristics and Details of the Transaction

1.1 Objectives and Background of the Transaction

Bangkok Expressway and Metro Public Company Limited ("the Company" or "BEM") has been granted concessions for two mass rapid transit system projects from the Mass Rapid Transit Authority of Thailand ("MRTA"), namely the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) ("MRT Blue Line Project") and the MRT Chalong Ratchadham Line Project (MRT Purple Line) ("MRT Purple Line Project"). Apart from train service operation, the Company is also responsible for maintenance services on civil & architecture and electrical & mechanical systems ("CEM"). It has engaged CH. Karnchang Plc. ("CK") as the contractor of CEM services for such projects, with the service contract for the MRT Purple Line Project to expire in October 2023. To facilitate continuity of the administration of the CEM services for the MRT Purple Line Project, the Company accordingly desires to extend the term of such service contract for another 10 years.

At the same time, the Company needs to engage a contractor for replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Blue Line Project (Bang Sue Station - Hua Lamphong Station Section), as a consequence of the past tunnel construction technology and the deterioration according to useful life of the expansion rubbers, which has been in use since the start of train operation, resulting in leakage of water and sand into the tunnel. Therefore, the Company will have to change the grout plugs and expansion rubbers, and reinject PU Foam into the tunnel wall where earlier changes were made and where new leakages are discovered.

The Company recognizes CK's capability, experience, knowledge and skill in such tasks, which will be beneficial to the Company.

Therefore, the Board of Directors' Meeting of the Company No. 1/2023, held on February 22, 2023, has resolved to propose the 2023 Annual General Meeting of Shareholders, which will be held on April 18, 2023, to consider and approve agenda related to the connected transactions concerning the engagement of CK as the contractor of maintenance services on civil & architecture and electrical & mechanical systems (CEM) for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) in the total amount of Baht 1,630 million (VAT exclusive), as per the following details:

- (1) Transaction 1: Extension of the CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Khlong Bang Phai Station – Tao Poon Station Section), including the replacement of equipment of some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), for another 10 years from the original term, or from November 1, 2023 to October 31, 2033, in the total amount of Baht 1,150 million (VAT exclusive). Please refer to the scope of CEM services in Part 1, Clause 1.4 of this report; and
- (2) Transaction 2: The replacement of equipment of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) by changing grout plugs and expansion rubbers in the tunnel wall between Bang Sue Station and Hua Lamphong Station, and the injection of additional PU Foam. The processes will take 2 years to complete and cost approximately Baht 480 million (VAT exclusive).

1.2 Date of the Transaction

The Company shall enter into the transactions after the Company obtains the approval from the 2023 Annual General Meeting of Shareholders, to be held on April 18, 2023. The Company expects to sign the Agreement to Engage CK within May 1, 2023.

1.3 Contract Parties and Relationship with the Company

1.3.1 Contract parties and relationship with the Company

Employer	:	Bangkok Expressway and Metro Public Company Limited (the "Company" or "BEM")
Contractor	:	CH. Karnchang Public Company Limited ("CH. Karnchang" or "CK")
Relationship with the Company	:	<ul style="list-style-type: none"> - CK is the major shareholder of the Company, holding 5,260,056,884 shares, representing 34.413% of paid-up capital of the Company.^{1/} - CH. Karnchang - Tokyu Construction Company Limited, a subsidiary of CK (with 55% ownership), is the Company's shareholder, holding 119,659,952 shares, representing 0.78% of the Company's paid-up capital.^{1/} - The Company and CK have 3 common directors, namely:

- (1) Mr. Plew Trivisvavet, Chairman of the Board of Directors and Chairman of the Executive Board of the Company (holding directly and indirectly 0.13% of the Company's paid-up capital^{1/}), is a director and Chairman of the Executive Board of CK.
- (2) Mr. Phongsarit Tantisuvanitchkul, a director and member of the Executive Board and a shareholder of the Company (holding 0.02% of paid-up capital^{1/}), is a director and deputy managing director of CK.
- (3) Miss Supamas Trivisvavet, a director and member of the Executive Board of the Company, is a director and Vice Chairman of the Executive Board of CK.
- As a result, CK is deemed as a connected person of the Company under the Notifications on Connected Transaction.

Remark:

1/ Information from the latest closing of the Company's share registration (XM) on March 9, 2023.

1.3.2 Connected persons and/or persons with conflict of interest who are ineligible to vote

List of connected persons and/or persons with conflict of interest who are ineligible to vote on Agenda 11 Re: "To consider and approve the entering into the connected transaction of the Company", at the 2023 Annual General Meeting of Shareholders, to be held on April 18, 2023, is shown in Part 1, Clause 8 of the Information Memorandum of the Company on the Connected Transaction, Schedule 2 (Attachment 12), enclosed with the Notification of the Annual General Meeting of Shareholders.

1.4 General Characteristics of the Transaction

The Company will engage CK as the contractor for the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) in the total amount of Baht 1,630 million (VAT exclusive), as per the following details:

Transaction 1:

Extension of the CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Khlong Bang Phai Station – Tao Poon Station Section), including the replacement of equipment in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), for another 10 years from the original term, or from November 1, 2023 to October 31, 2033, in the amount of Baht 1,150 million (VAT exclusive). The scope of CEM services consist of;

- Fire Detection and Alarm System;
- Fire Protection System;
- Lift and Escalator System;
- Environmental Control System;
- Low Voltage System;
- Lighting System;
- Civil & Architecture; and
- Walk-Through Metal Detector

The Company has been granted a concession for the MRT Chalong Ratchadham Line Project (MRT Purple Line) for a period of 30 years, from September 4, 2013 to September 3, 2043 (including construction period). It has engaged CK as the contractor of CEM services (Maintenance Levels 1 - 4) that will end on October 31, 2023. Thus, under Transaction 1, the existing contract term will be extended for another 10 years, to end on October 31, 2033.

However, to comply with its policy to start undertaking maintenance activities by itself, the Company will task its employees with simple CEM works (e.g. cleaning, inspections, supplies exchange, and preventive maintenance), including procurement of parts, supplies, and basic maintenance equipment. In this respect, the CEM service contractor has a duty to manage and transfer knowledge to the Company's staff assigned to participate in such activities.

Scope of works, including the replacement of equipment of some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), is as follows:

System	Level 1	Level 2	Level 3	Level 4
Fire Detection and Alarm System	✓*	✓*	✓	✓
- Main fire alarm control panel				
- Door monitoring system				
- Fire alarm work station				
Fire Protection System	✓*	✓*	✓	✓
- FM200 system				
- Inergen Gas system				

System	Level 1	Level 2	Level 3	Level 4
Lift and Escalator System - Lift - Escalator	✓	✓	✓	✓
Environmental Control System - Water system - Air distribution system - Split type system - Mechanical ventilation system - Controller system - Accessory	✓*	✓*	✓	✓
Low Voltage System - Main distribution system - Emergency power system - Earthing and lightning protection - Building management system - High voltage for administrative building	✓*	✓*	✓	✓
Lighting System - Lighting system - Power outlet	✓*	✓*	✓	✓
Civil & Architecture^{1/}	✓*	✓*	✓	✓
Walk-Through Metal Detector^{2/}	✓*	✓*	✓	✓

Remark:

- Please refer to additional details in Part 3, Clause 1 of this report.
- The maintenance services are divided into 5 levels, which are:
 - Level 1: Maintenance activities that do not require any special tools (Cleaning, Inspection, and Replacement of Consumables) and can be done by staff with basic technical training, including cleaning of equipment, trains, stations, depots and other buildings, replacement of lamps, fuses, seats and other impaired equipment, minor repairs and adjustments, and gardening and lawn care practices.
 - Level 2: Maintenance relating to routine preventive maintenance activities and covering all assets of railway systems that require simple procedures or easy-to-use test equipment, including inspections, tests, checks, measurements, safety checking handled by qualified technicians, and change of simple components.
 - Level 3: Maintenance relating to more complex preventive and corrective maintenance tasks which can only be performed by qualified technicians or engineers, including corrective maintenance procedure using complex-to-use test equipment, major preventive maintenance, change of small parts and parts requiring heavy lifting devices, removal of major assemblies such as bogie, lifts, escalators, and traction, and replacement of worn parts.
 - Level 4: Maintenance relating to overhaul activities that require highly skilled technical staff and may require advanced technical instrument, including disassembly of assets and assets condition assessment, overhaul work activities, and major component repair.
 - Level 5: Maintenance relating to system enhancements and renewals that require highly skilled technical staff with detailed knowledge of the asset design and operation, including system improvements (including software), addition of new features to meet customer expectations, improvement necessary to enhance maintainability and reliability, and replacement of obsolete components.
- * The Company will provide workers, parts, and tools for the works under the scope of engagement that are less complicated, which will be carried out under the supervision and recommendation of CK, who is responsible for administrating, transferring of knowledge, and controlling the processes to meet prespecified KPIs.
- 1/ According to the Existing CEM Contract, the maintenance services of civil & architectural systems cover only Level 1 – 2; however, the scope of the New CEM Contract (to be approved) will cover Maintenance Level 1 – 4.
- 2/ The Walk-Through Metal Detector System is an additional scope of work under the New CEM Contract.

Transaction 2:

The replacement of equipment in the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) by changing grout plugs and expansion rubbers in the tunnel wall between Bang Sue Station and Hua Lamphong Station, and the injection of additional PU Foam. The processes will take 2 years to complete and cost approximately Baht 480 million (VAT exclusive).

Under the past tunnel construction technology, a grout hole was made from inside to outside of the tunnel wall for the purpose of lifting and placing the tunnel wall in the intended position. After complete installation of the tunnel wall, the grout hole was sealed and plugged with expansion rubber and grout plug.

After using the tunnel structure for a period of time, the expansion rubbers have worn out, thus allowing seepages of water and sand into the tunnel. Over the past years, leakages occurred with an immense amount of water and sand and relatively interrupted train services, resulting in changes of grout plugs and expansion rubbers and additional injection of PU Foam for enhancement of leakage prevention at 24,000 leaking points (the maintenance at the leakage point, by which the Company gradually replaced the grout plugs and expansion rubbers and injected PU Foam since 2009 by the contractor who is not CK, with the performance guarantee period of 6 months) out of the total 194,000 points (the Company, by the CEM contractor, has periodically checked the tunnel wall of the MRT

projects in order to prevent train operation from the damages. The contractor has informed the Company regarding the result of the survey so that the Company can prepare maintenance plan and budget for the replacement of grout plugs and expansion rubbers and the injection of additional PU Foam at the points with history of leakage (replacement of deteriorated equipment) and the points where additional leakage are found, which is the work that the Company has to responsible for additional expenses that may arise).

Considering that the expansion rubbers and PU foam have a useful life of 10 years and to improve leakage prevention in the tunnel, the Company needs to change the grout plugs and expansion rubbers and reinject the PU Foam where earlier changes were made (24,000 points) and where leakages are additionally discovered (24,000 points), totaling 48,000 points. Therefore, the Company must engage a contractor for the said change of grout plugs and expansion rubbers and additional injection of PU Foam.

Summary of CEM Contract with CH. Karnchang

(a) Draft CEM Contract to engage CH. Karnchang Public Company Limited as a contractor for maintenance services on civil & architecture and electrical & mechanical systems of the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Klong Bang Phai Station – Tao Poon Station Section)

Counter parties	Employer: Bangkok Expressway and Metro Public Company Limited (the "Company") Contractor: CH. Karnchang Public Company Limited ("CH. Karnchang" or "CK")
Date of agreement	To be signed within May 1, 2023
Scope of work	(1) The scope of CEM services is as follows: <ul style="list-style-type: none"> • Fire Detection and Alarm System; • Fire Protection System; • Lift and Escalator System; • Environmental Control System; • Low Voltage System; • Lighting System; • Civil & Architecture); and • Walk-Through Metal Detector (2) Administration of the work processes and knowledge transfer to the Company's personnel
Agreement term	Total 10 years, starting from November 1, 2023 to October 31, 2033
Extension of the agreement	At least 12 months before the end of agreement, the Company shall notify CK in writing to extend the agreement period for 10 years based on the existing conditions. The parties shall conclude whether the agreement shall be extended 6 months before the end of the agreement or the Company shall notify CK in writing not to extend the agreement. However, the extension of the agreement shall depend on the maintenance condition and expected service fee
CK's duties	(a) CK shall undertake that the CEM shall meet service performance targets set out in the maintenance specification. In the event that CK is unable to meet the targets, it shall pay all liquidated damages as specified in the agreement. (b) CK shall comply with the working requirements concerning enter of the premises and shall pay all liquidated damages if it fails to do so. (c) CK shall, if so requested in writing by the Company, provide any additional services, of which fee shall be as agreed by the parties.
Care for maintenance equipment and spare parts	The Company hands over maintenance equipment, special tools, and spare parts under the Concession Agreement to CK, who shall take full responsibility for the care of such maintenance equipment, special tools, and spare parts throughout the contractual period. Moreover, all maintenance equipment, special tools, and spare parts shall be stored at the Company's premises and may only be used for the performance of the services and shall not be removed or replaced without the Company's consent, except in the case of an emergency. To the extent that the supply of maintenance equipment furnished by BEM is insufficient for CK to perform the services, CK shall provide at no cost such supplementary equipment as necessary.
Service fee	Total service fee throughout the contractual period is Baht 1,150 million (VAT exclusive). The Company shall pay the annual fee in 12 monthly installments. The due date for the payment shall fall within 30 days after submission by CK of a properly rendered invoice with monthly/quarterly report and monthly performance monitoring report in accordance with the maintenance specification. If BEM fails to make the payment, it shall pay to CK interest upon overdue payment at the rate specified in the contract.
Performance guarantee	CK shall provide a performance bond at a value of 3% of the contract value within 15 days after agreement date
Right assignment	The Company may assign its rights under this maintenance contract to the following party without any consent from CK. (1) The MRTA (2) The Royal Thai Government (3) Subsidiaries (4) The lender (or any agent or trustee acting on their behalf) CK shall not assign or transfer any of its obligations under this contract without the prior written consent from the Company.

Termination of contract	<p><u>Termination by the Company</u></p> <ul style="list-style-type: none"> - If CK fails to undertake its obligations under this contract, the Company shall give written notice to CK to rectify such issue within a period deemed appropriate by the Company but shall not less than 14 days. If CK fails to rectify such fault within the period given by the Company or mutually agreed period, the Company shall have the right to terminate the contract. - If CK becomes bankrupt or makes any composition, or has an application made for the appointment of an administrator, or has a winding-up order made, or a resolution for voluntary winding-up passed, or a receiver or manager of its business is duly appointed, or has an administrative receiver appointed, then the employment of CK under this maintenance contract shall be automatically terminated. <p><u>Termination by CK</u></p> <p>If the Company fails to make payment of any undisputed amount due to CK under this contract within 7 days after the due date, CK may at its sole discretion serve notice of default on the Company requiring it to make payment within 7 days of that notice. If the Company fails to make payment before the expiry of the period set out in the notice, CK may terminate this contract.</p> <p><u>Termination of Concession Agreement by the MRTA</u></p> <p>If the Concession Agreement is terminated by the MRTA for a reason or reasons attributable to the maintenance contractor (CK), then the contract shall be terminated and the Company shall calculate the costs of any damages paid or due to be paid to the MRTA as a result of termination of the Concession Agreement; and the costs of the Company demobilize staff expenses, any Lenders' cancellation fee and reasonable amount representing inconvenience, closure of contractual matter. The liability of CK shall not exceed 25% of the total fee throughout the entire period of the maintenance contract</p>
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(b) Draft Amendment of CEM Contract to engage CH. Karnchang Public Company Limited as a contractor for maintenance services on civil & architecture and electrical & mechanical systems of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), Amendment No. 5 (adds scope of work to cover the maintenance services)

Counter parties	Employer: Bangkok Expressway and Metro Public Company Limited (the "Company") Contractor: CH. Karnchang Public Company Limited ("CH. Karnchang" or "CK")
Date of agreement	To be signed within May 1, 2023
Scope of work	The contractor must change grout plugs and expansion rubbers at 48,000 locations along the tunnel of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section).
Agreement term	2 years, starting from May 1, 2023 to April 30, 2025
Service fee	Total service fee throughout the contractual period is Baht 480 million (VAT exclusive). The Company shall pay the annual fee in 12 monthly installments. The due date for the payment shall fall within 30 days after submission by CK of a properly rendered invoice with monthly/quarterly report and monthly performance monitoring report in accordance with the maintenance specification.

CapAd received a confirmation that the essence of the executed version of the two agreements with CK in (a) and (b) above will not be materially changed from the drafted version.

1.5 Total Value of the Consideration, Payment of the Consideration, and Basis for Calculation of Total Value of the Consideration

Total value of the consideration

Total value of the consideration is composed of (1) value of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) under Transaction 1 of Baht 1,150 million (VAT exclusive), and (2) value of replacement of equipment of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) under Transaction 2 of Baht 480 million (VAT exclusive), totaling Baht 1,630 million (VAT exclusive), which is in line with the draft agreements between the Company and CK.

Payment of the consideration

Transaction 1: The Company agrees to make a monthly payment to CK within 30 days upon receiving an invoice from CK.

Transaction 2: The Company agrees to make a monthly payment to CK (in accordance with the progress of work) within 30 days upon receiving an invoice from CK.

Basis for calculation of value of the consideration

In the consideration and comparison of the contractor's fee, the Company has engaged Infra Asia (Thailand) Limited ("InfraAsia" or "Independent Expert"), an independent expert with experience and expertise in cost estimation for electric rail system projects, to be the Independent Expert for the appropriate cost estimation. InfraAsia has reviewed and estimated the appropriate consideration for the CEM services as follows:

Transaction 1: Value of the extension of the CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) for another 10 years under the scope of work as determined by the Company is equal to approximately Baht 1,208.90 million (VAT exclusive); and

Transaction 2: Value of the replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) between Bang Sue Station and Hua Lamphong Station is equal to approximately Baht 492.80 million (VAT exclusive).

In this regard, CK has quoted Baht 1,150 million (VAT exclusive) for the CEM work for the MRT Purple Line Project of and Baht 480 Million (VAT exclusive) for the replacement of grout plugs and expansion rubbers of the tunnel wall of Bang Sue Station - Hua Lamphong Station Section. The Company is of the opinion that the prices of the works quoted by CK are lower than the prices that the Independent Expert has appraised under the same scope of work. Thus, the engagement of CK to responsible for such works is appropriate.

1.6 Type and Size of the Transaction

Connected transaction

Criteria for Calculation of Transaction Size	Calculation Formula	Transaction Size
Net tangible assets (NTA) criteria	= Baht 1,630.00 million ^{1/} / Baht 37,208.00 million ^{2/}	4.38%
Connected transaction size^{3/}		4.38%

Remark:

- 1/ Consist of (1) value of CEM works of the MRT Chalong Ratchadham Line Project (MRT Purple Line) of Baht 1,150 million (VAT exclusive) and (2) value of replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) of Baht 480 million (VAT exclusive).
- 2/ Net tangible assets of the Company = Total assets of Baht 114,128.19 million - Net intangible assets of Baht 33.95 million - Deferred income tax of Baht 19.99 million - Total liabilities of Baht 76,864.62 million - Non-controlling shareholders' equity of Baht 1.62 million, based on the Company's audited consolidated financial statements for the 12-month period ended December 31, 2022.
- 3/ The Company had not entered into any connected transaction during the 6-month period prior to the date the Company's Board of Directors' Meeting passed a resolution to proposed the meeting of shareholders to approve this connected transaction.

1.7 Conditions on the Entering into the Transaction

The Company will enter into the CEM Contracts with CK after obtaining approvals from the 2023 Annual General Meeting of Shareholders of the Company, to be held on April 18, 2023.

1.8 Sources of Funds for the Entering into the Transaction

From cash flows from operation of the Company.

2. Information and Credentials of Infra Asia (Thailand) Limited, the Independent Expert

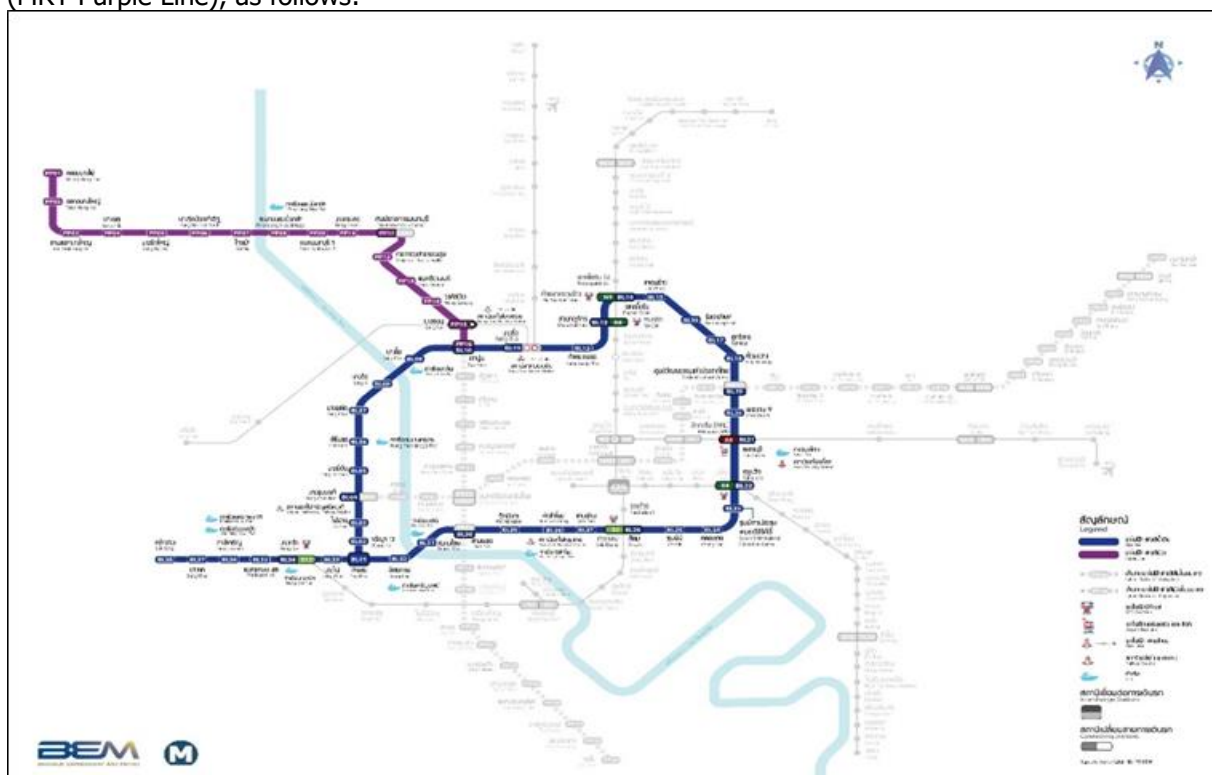
Please refer to Attachment of this report

Part 2: Opinion of the Independent Financial Advisor on Reasonableness of the Connected Transaction

In determining the reasonableness of the entering into the transactions, the IFA has taken the following key factors into consideration:

1. Objective and Necessity of the Entering into the Transaction

The Company's main business is administering and providing the metro system services and the expressway network under the concession agreements, as well as pursuing commercial developments on those concessions. The Company has been granted concessions for operation of two metro system projects from the Mass Rapid Transit Authority of Thailand ("MRTA"), namely the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) and the MRT Chalong Ratchadham Line Project (MRT Purple Line), as follows:



Source: The Company

Concessions for Operation of Metro Services from MRTA

1. The MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), consisting of 38 stations covering 48 kilometers

- Under the concession agreement for the MRT Chaloem Ratchamongkhon Project (MRT Blue Line) with MRTA, dated August 1, 2000 and March 31, 2017 ("Concession Agreement of the MRT Blue Line")
- The concession period is 30 years, from the date of full Blue Line operation on March 30, 2020 to March 29, 2050. The MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) consists of:
 - (a) The MRT Blue Line Project (Hua Lamphong Station – Bang Sue Station), which commenced services on July 3, 2004 whereby the Company has outsourced maintenance services on civil & architecture and electrical & mechanical systems (CEM) (Maintenance Level 1 - 4) to CK since November 2015 with the CEM Contract expiring on March 31, 2027^{1/}; and
 - (b) The MRT Blue Line Extension Project (Bang Sue Station – Tha Phra Station and Hua Lamphong Station – Lak Song Station), which commenced full commercial operation on March 30, 2020^{2/} and thereby resulting in a through operation in a circle line of the MRT Blue Line Project and the MRT Blue Line Extension Project, covering Bangkok's midtown areas and linking travel between Bangkok and Thon Buri. The Company has outsourced the CEM services (Maintenance Level 1 - 4) for the entire MRT Blue Line Extension Project to CK for a period of 8 years and 7 months, from August 29, 2018 to March 31, 2027.^{1/}
- The MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) connects with the MRT Chalong Ratchadham Line Project (MRT Purple Line) at Tao Poon Station.

2. The MRT Chalong Ratchadham Line Project (MRT Purple Line), consisting of 16 stations covering 23 kilometers

- Under the concession agreement for the MRT Chalong Ratchadham Project (MRT Purple Line), Khlong Bang Phai Station – Tao Poon Station Section, with MRTA, dated September 4, 2013 ("Concession Agreement of the MRT Purple Line"), for the investment, procurement of electric train system, and operation and maintenance services

Concessions for Operation of Metro Services from MRTA

- The concession period is 30 years, from September 4, 2013 to September 3, 2043 (including construction period), divided into two phases:
Phase 1: Designing and construction; and
Phase 2: Service operation (including CEM), with official opening on August 6, 2016.
- The Company has outsourced the CEM services to CK for a period of 8 years, from November 17, 2015 to October 31, 2023.



Remark:

- Consists of (a) the Existing CEM Contract with CK for a period of approximately 8 years (November 17, 2015 – October 31, 2023), approved by the Extraordinary General Meeting of Shareholders No. 1/2015 of the Company on October 14, 2015; and (b) the extension of the CEM Contract with CK for another 3 years and 5 months (November 1, 2023 – March 30, 2027), approved by the 2018 Annual General Meeting of Shareholders on April 20, 2018.
- The MRT Blue Line Extension Project is divided into 3 sections:
 - Section 1: Bang Sue Station – Tao Poon Station (1 station), commenced operation on August 11, 2017, with Tao Poon Station as an interchange station of the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Blue Line Extension Project;
 - Section 2: Hua Lamphong Station – Lak Song Station (11 stations), commenced operation on September 29, 2019, and
 - Section 3: Tao Poon Station – Tha Phra Station, commenced operation on March 30, 2020.

The Company is committed to operate the electric train services with efficiency, safety, rapidity, convenience, reliability, and punctuality. To ensure the metro system service operation and maintenance are carried on uninterruptedly and efficiently and in line with the scope of work under the Concession Agreement of the MRT Purple Line and Concession Agreement of the MRT Blue Line, which includes procurement of electric train system, operation of train system, and maintenance of train system, the Company has adopted the operational policy and guidelines as follows:

Scope of Work	Details
Train system operation	Having expertise in train system operation, the Company therefore undertakes the operation by itself for both the MRT Chaloe Ratchamongkhon Line Project (MRT Blue Line), and the MRT Chaloe Ratchadham Line Project (MRT Purple Line).
Procurement of electric train system and M&E system	Since this is a specialized task, the Company has a policy to outsource procurement of electric train system and M&E maintenance administration to a third party.
CEM services	Since maintenance services are specialized tasks that require a large number of specialists, the Company has a policy to outsource CEM administration to a third party, who has expertise in CEM, and concurrently develop its employees' skills in simple CEM works, as follows:
(1) CEM services (Maintenance Level 1 - 4)	<ul style="list-style-type: none"> The Company has outsourced the CEM works to a third party by engaging CK to undertake CEM services for the MRT Chaloe Ratchamongkhon Line Project (MRT Blue Line), and the MRT Chaloe Ratchadham Line Project (MRT Purple Line). During the early stage of the operation of the MRT Blue Line Project, which was its first electric train project, the Company had faced problems concerning the engagement of service provider for CEM services as follows: <ul style="list-style-type: none"> 2004 – 2015: From 2004, the Company engaged several contractors for CEM services for the MRT Blue Line Project via open bidding process. It encountered problems in

Scope of Work	Details
	<p>maintenance services and had conflicts with those contractors, while wasting a lot of time and manpower in negotiation with them. It also incurred expenses in addition to the value of maintenance works under the contract on many occasions, mostly resulting from denial of responsibilities from some of the service providers, who cited the damage to CEM being caused by construction contractors which was out of their scope of work such as water leakage in the tunnel and malfunction of escalators. In some incidents, the Company asked CK, who was more influential with contractors, to negotiate with them on its behalf and could resolve such conflicts with no extra expenses.</p> <ul style="list-style-type: none"> - Therefore, the Company has a policy to outsource the CEM services for the MRT Blue Line Project to the sole contractor in order to resolve such issue. - November 17, 2015 – present: The Company has engaged CK as the contractor of the CEM services in place of the former contractor. Consequently, the Company has been able to control maintenance costs and reduce difficulties in coordination with the contractor, as well as eliminated the conflicts with service provider. Throughout the period it has undertaken the contract to present, CK has performed its duties smoothly in accordance with the scope and terms of the contract.
(2) Simple CEM services (Maintenance Level 1 - 2)	The Company has a policy to start undertaking maintenance activities by itself by tasking its employees with simple CEM works (e.g. cleaning, inspections, supplies exchange, preventive maintenance), as well as procurement of parts, supplies, and basic maintenance equipment. The CEM service contractor has a duty to manage and transfer knowledge to the Company's staff assigned to participate in such activities.
(3) CEM services (Maintenance Level 5)	Since this level requires highly skilled technical staff, the Company has a policy to hire a contractor to carry out the job on a job-per-job basis, normally at 10 – 15 years intervals, depending on useful life, deterioration, and technological change of each equipment.

Therefore, in order to facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) and comply with the Company's policy to outsource a third party, who is specialized in civil & architecture and electrical & mechanical systems, to administer maintenance service, as it requires a large number of specialists (the Company has undertaken simple CEM works, including procurement of parts, supplies, and basic maintenance equipment, under the management and knowledge transfer from the service contractor). Since CK has served as the contractor of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) since November 2015, with capable personnel and familiarity with the MRT Project's operating system (such as security, procedure to access working areas, and time to conduct maintenance services), which has been strictly specified by MRTA, the Company accordingly decides to engage CK as the contractor of the CEM services as follows:

Transaction 1: Extension of the CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Klong Bang Phai Station – Tao Poon Station Section)

The aims of engaging CK as the contractor are to facilitate continuity and stability of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) under the same contractor as the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), both of which are connected at Tao Poon Station, to harmonize the maintenance services plan of the Company, to operate the train system efficiently and smoothly, to simplify the management of only one administrator instead of dealing with several ones, and to reduce coordination effort, risk, and problems that may impact train operation. The CEM services are critical to the reliability of train operation in order to provide service with no interruption for all 365 days in a year; and

Transaction 2: The replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), Bang Sue Station – Hua Lamphong Station Section

There will be a change of grout plugs and expansion rubbers in the tunnel wall and additional injection of PU Foam⁶, which is the civil infrastructure of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), Bang Sue Station - Hua Lamphong Station Section, that has been in use for nearly 19 years (since the commencement of commercial operation on July 3, 2004)⁷ as the expansion rubbers are wearing out and will relatively cause seepages of water and sand into the tunnel.

⁶ Please refer to Footnote 5 on page 8.

⁷ Actual useful life of the equipment is approximately 21 years as they had been installed for a certain period before the commencement of train operation.

The Company had changed the grout plugs and expansion rubbers and reinjected the PU Foam to improve leakage prevention at 24,000 points (the maintenance at the leakage point, by which the Company gradually replaced the grout plugs and expansion rubbers and injected PU Foam since 2009 by the contractor who is not CK, with the performance guarantee period of 6 months) out of the total 194,000 points (the Company, by the CEM contractor, has periodically checked the tunnel wall of the MRT projects in order to prevent train operation from the damages. The contractor has informed the Company regarding the result of the survey so that the Company can prepare maintenance plan and budget for the replacement of grout plugs and expansion rubbers and the injection of additional PU Foam at the points with history of leakage (replacement of deteriorated equipment) and the points where additional leakage are found, which is the work that the Company has to responsible for additional expenses that may arise). However, as the expansion rubbers and PU Foam have a useful life of approximately 10 years, the Company therefore needs to change the grout plugs and expansion rubbers and reinject the PU Foam in the same areas (24,000 points) and the areas where new seepages are found (24,000 points), totaling 48,000 points, to enhance the prevention of water and sand leakages into the tunnel, which will otherwise interrupt the train system and train operation.

Since CK is both the contractor of the CEM services and the participant in the procurement, installation, and testing of M&E systems equipment for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), it is therefore familiar with civil infrastructure, equipment, and systems of this project.

2. Comparison of Advantages and Disadvantages of the Transactions

2.1 Advantages and Benefits of the Entering into the Connected Transaction

Advantages and Benefits Relating to the Entering into the Two Transactions (Transaction 1 and Transaction 2)

(1) The CEM service contractor (CK) is a large construction contractor with knowledgeable and competent staff and first-hand experience and expertise in works relating to the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line)

The contractor (CK) is a large construction contractor with first-hand experience in rail projects in Thailand, including the design and construction of civil works, project management, design, procurement and installation of the M&E systems, as well as administration of CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). Summary of CK's credentials is as follows:

Experience Related to the MRT Chalong Ratchadham Line Project (MRT Purple Line)		
1. Work engaged by MRTA – civil works		
1.1	CK (by CKTC Joint Venture) was responsible for the construction of civil works (design of elevated railways and station structure, as well as construction of 8 elevated stations) and the electro-mechanical systems under Contract 1 for the MRT Purple Line Project (Phra Nang Klao Bridge Station – Bang Sue Station Section).	Civil works
2. Works under the Company's responsibilities that CK was engaged as the contractor - M&E and CEM		
2.1	CK was the administrator and responsible for the procurement, installation and trial-run of the M&E systems* for the MRT Purple Line Project (Khlong Bang Phai Station – Tao Poon Station Section) (M&E Equipment Procurement, Construction and Management Contract). (* Comprising of passenger train system, signaling system, automatic platform gate system, passenger fare collection system, maintenance equipment for services inside and outside maintenance depot, power supply system, and communication, control, and data storage systems (SCADA))	M&E
2.2	CK was responsible for the procurement and installation of communication systems for the MRT Purple Line Project (Bang Sue Station – Tao Poon Station Section) (1 station covering approximately 1 kilometer).	M&E
2.3	CK was the contractor of CEM services for the MRT Purple Line Project: Khlong Bang Phai – Bang Sue Section (Khlong Bang Phai Station – Tao Poon Station) over a period of approximately 8 years from November 17, 2015 to October 31, 2023.	CEM

Experience Related to the MRT Blue Line Project and the MRT Blue Line Extension Project		
1. Works engaged by MRTA - civil works		
1.1	CK (by BCKT Joint Venture) was responsible for the design and construction of 9 underground stations, including civil works, underground stations, tunnels, M&E systems, structures, and design of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section), covering approximately 10 kilometers.	Civil works
1.2	CK (by CKSL Joint Venture) was responsible for the design and construction of the ballasted and ballastless track work and conductor rail of the MRT Blue Line Project (Bang Sue Station - Tao Poon Station Section).	Civil works

Experience Related to the MRT Blue Line Project and the MRT Blue Line Extension Project		
1.3	CK was the contractor for the construction of civil works, including design, construction of tunnels and 2 underground stations for the MRT Blue Line Extension Project (Sanam Chai Station – Tha Phra Station Section) under Contract 2.	Civil works
1.4	CK was the contractor for the design of civil infrastructure and the construction of the ballasted and ballastless track work and conductor rail for the MRT Blue Line Extension Project (Hua Lamphong Station – Bang Khae Station Section and Bang Sue Station – Tha Phra Station Section) under Contract 5.	Civil works
2. Works under the Company's responsibilities that CK was engaged as the contractor – M&E and CEM		
2.1	CK (by CKET Joint Venture) was the project administrator and responsible for the design and installation of the M&E systems for the Chaloem Ratchamongkhon Line Project (MRT Blue Line), of which the Company is currently the concessionaire. It was also responsible for the system integration testing and the trial run of passenger trains until the MRT Blue Line Project launched its commercial operation on schedule. (M&E Equipment Procurement, Construction and Management Contract)	M&E
2.2	CK was the project administrator and responsible for the design, procurement, and installation of M&E systems* and the trial run of the MRT Blue Line Extension Project (M&E Equipment Procurement, Construction and Management Contract), by which the systems must be connected with those of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), as well as the installation of necessary equipment and facilities supporting their seamless connection. (* Comprising of passenger train system, signaling system, automatic platform gate system, passenger fare collection system, maintenance equipment for services inside and outside maintenance depot, power supply system, and communication, control, and data storage systems (SCADA))	M&E
2.3	CK was responsible for the installation of the telecommunication network at 4 stations of the MRT Blue Line Extension Project, comprising Wat Mangkon Station, Sam Yot Station, Sanam Chai Station, and Itsaraphap Station.	M&E
2.4	CK was responsible for upgrading and replacing the electro-mechanical systems of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) that had reached the end of their service lives.	M&E
2.5	CK was responsible for the procurement and installation of equipment to improve the communication systems of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Hua Lamphong Station – Bang Sue Station Section) (consisting of 18 stations covering approximately 20 kilometers).	M&E
2.6	CK is the contractor of the CEM services for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Hua Lamphong Station – Bang Sue Station Section) from November 17, 2015 to March 31, 2027, as follows: - 1 st Contract: Spanning approximately 8 years from November 17, 2015 to October 31, 2023; and - 2 nd Contract: Extended for 3 years and 5 months from November 1, 2023 to March 31, 2027	CEM
2.7	CK is the contractor of the CEM services for the MRT Blue Line Extension (for 8 years and 7 months from August 29, 2018 to March 31, 2027), including preparation in the initial phase and maintenance of equipment during the trial run of each station under the mobilization period.	CEM

CK is also familiar with the civil works of other electric train systems such as the MRT Orange Line Project (East Section) and the BTS Green Line Extension (Bearing – Samut Prakan Section), as evident from the following credentials:

Experience Related to the MRT Orange Line Project (East Section)		
1. Work engaged by MRTA – civil works		
1.1	CK (by CKSL Joint Venture) was responsible for the design and construction of tunnels and underground stations of Thailand Cultural Centre – Ramkhamhaeng 12 Section (covering 6.29 kilometers with 3 underground stations) under Contract 1.	Civil works
1.2	CK (by CKSL Joint Venture) was responsible for the design and construction of tunnels and underground stations of Ramkhamhaeng 12 – Ramkhamhaeng 34 Section (covering 3.44 kilometers with 4 underground stations) under Contract 2.	Civil works
1.3	CK (by CKSL Joint Venture) was responsible for the construction of the maintenance depot and park & ride building.	Civil works

Experience Related to the BTS Green Line Extension (Bearing – Samut Prakan Section)		
1. Work engaged by the MRTA		
1.1	CK was responsible for the construction of civil works (elevated structure and 9 elevated stations, including station structure, infrastructure improvement, and new design of elevated structure and station structure) and the design and construction of ballastless track work for the elevated structure, elevated railway, and maintenance depot for the BTS Green Line Extension Project: Bearing – Samut Prakan Section.	Civil works

The contractor (CK) has been working well with relevant parties and could manage suppliers of the M&E systems and maintenance equipment to synchronize with the construction of civil works. It has successfully achieved on-time delivery and on-budget targets, resulting in the timely commencement of service of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), the MRT Blue Line Extension Project, and the MRT Purple Line: Khlong Bang Phai Station – Tao Poon Station Section.

Therefore, the CEM service contractor, who is a large construction contractor with knowledgeable and competent staff and first-hand experience and expertise in works relating to the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), as well as other electric train projects, is well-prepared in all aspects for the administration of the CEM services for the Company under Transaction 1 and Transaction 2.

(2) The CEM contractor (CK) will perform the tasks at full capacity, without abandoning the job, in order to preserve its investment value in the Company

The fact that CK is the Company's major shareholder demonstrates its strong commitment to administer the CEM services (both Transaction 1 and Transaction 2) at full capacity without abandoning the job, to maintain the value of its investment in the Company. On the contrary, if the transaction is executed with a third party, it may not pay full attention to the quality of work or may abandon the job with no concern about a longstanding relationship.

(3) The CEM contractor (CK) has no record of job abandonment and has strong financial position and adequate liquidity for its business

The engagement contract for the CEM services (under Transaction 1) covers a period of 10 years, whereas the change of grout plugs and expansion rubbers in the tunnel wall and injection of additional PU Foam (under Transaction 2) is deemed a significant work requiring expertise with high total transaction value. Thus, the contractor should be trustworthy and never have a record of job abandonment in order not to affect the train operation. Moreover, the contractor may have to make advance payments for some expenditures. If the contractor does not have sufficient credit facilities and liquidity, the implementation of the Project may be interrupted. The contractor should therefore be reliable and financially sound and have adequate liquidity to ensure the smooth implementation of the Project.

According to its separate financial statements as of December 31, 2022, CK had total assets of Baht 79,083.50 million, cash and cash equivalents of Baht 6,223.12 million, short-term investments of Baht 101.32 million, and shareholders' equity of Baht 20,306.45 million. Therefore, CK is considered financially strong and has sufficient liquidity to operate its business.

In addition, the contractor (CK) has been in operation for more than 49 years and is a Class 1 (highest rank) contractor, enabling it to propose for any public sector construction project. The public sector normally takes into account the qualifications in 3 key areas when choosing a contractor: the contractor's expertise and credentials, financial position, and the number and qualifications of staff. Besides, CK is one of the construction companies that can carry out construction work that is complicated and requires sophisticated technology such as the construction of large-scale infrastructure projects. Therefore, the Company is confident that the contractor will be able to deliver the work under the scope and standards outlined in the CEM Contract.

(4) The coordination and operation will be flexible

By engaging CK as the contractor, the Company will be able to negotiate and agree on all conditions and details with CK, as well as facilitate the coordination and operation, rapidly and flexibly since the professional team of CK and the Company have worked together on numerous projects and are well acquainted with one another. Obstacles to their working together throughout the contract period can also be eliminated.

(5) The Company will be able to achieve on-budget targets for CEM

The engagement of the CEM service contractor in both Transaction 1 and Transaction 2 will be made on a fixed cost basis, with payment made on a monthly basis against work completed. As such, the Company will be able to control the CEM budget over the 10-year contract term of the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the cost of equipment replacement over the 2-year term of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). Such scope of work is in line with those outlined in the Concession Agreements of the MRT Purple Line Project and the MRT Blue Line Project with the MRTA, and under the requirements of the Company.

As a large contractor, CK has continuously undertaken new construction projects, including contracting for the same system maintenance works in the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). It accordingly has more bargaining power with the suppliers and can control the maintenance cost at an acceptable level, which is more beneficial when compared with the work performed by the Company itself.

(6) The Company will indirectly benefit from CK's protection of confidential information regarding skills in CEM services

In executing an electric train project management agreement with the public sector, the contractor needs to have first-hand experience in various aspects, including procurement of equipment, management of train operation, and CEM services, to ensure efficient train system operation. These skills are possessed by a limited number of service providers in the country. Among them, the Company and CK are regarded as Thailand's major operators with expertise in the underground electric train system. Thus, by engaging CK as the main contractor of the CEM services, including the replacement of equipment in the civil infrastructure and other systems, the Company will indirectly benefit from CK's protection of confidential technical information and other crucial information of the electric train projects, especially the metro system, within the group, which will be substantially beneficial to the Company's competitiveness.

Since the CEM works on electric train projects require specialized skills and a large number of specialists, the outsourcing of CEM contractor will reduce the Company's burden on employing workforce and managing a large number of specialists. It is a common practice for most companies to outsource certain types of works instead of employing a large number of staff to perform the tasks.

Specific Advantages and Benefits of Transaction 1

(7) This will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Project (MRT Purple Line) of the existing service provider

Having been the contractor of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) since November 17, 2015 (from the start of train system trial-run) under the contract that will expire on October 31, 2023, CK is therefore well acquainted with the CEM, equipment, and engineering structure, and also with the working system, method and maintenance process of the MRT Purple Line Project, including security, procedure to access working areas, and time to conduct maintenance services, which have been strictly specified by MRTA.

Throughout the period of its services, CK has continuously carried out the CEM as planned with favorable performance that could exceed the KPI, for example, fast completion of repair and maintenance of equipment and civil structure. This is the key factor enabling the Company to achieve efficient train operation.

Thus, the extension of the CEM Contract with CK (Transaction 1), which is the existing service provider and is familiar with the tasks in all respects, will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) over the next 10 years.

(8) The CEM contractor (CK) is acquainted with the CEM and train system of the MRT Chalong Ratchadham Line Project (MRT Purple Line)

Aside from serving as the CEM service contractor for the MRT Chalong Ratchadham Line Project (MRT Purple Line) from 2015 to present (for almost 8 years), CK is Thailand's large construction contractor with first-hand experience, expertise, understanding and familiarity with the structure and system of the MRT Chalong Ratchadham Line Project (MRT Purple Line) since it is engaged by the MRTA as the construction contractor for civil works, including the procurement, installation and trial-run of electric train system. Therefore, it possessed information relevant to the design and construction processes, which enable CK to timely analyze any failures and implement corrective measures and would be considerably useful for the CEM and the replacement of equipment in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)). Please refer to a summary of CK's credentials in the MRT Chalong Ratchadham Line Project (MRT Purple Line) in Part 2, Clause 2.1 (2) of this report.

(9) This will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line)

Having CK as the sole contractor of the CEM services for both the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which are under through operation, the Company and the CEM administrator will be able to efficiently devise a maintenance plan for all relevant systems and the maintenance plan implementation, which includes the equipment replacement in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), can be carried out with greater efficiency than by hiring several contractors to handle such tasks.

Specific Advantages and Benefits of Transaction 2

(10) The replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) will enhance water and sand leakage prevention in the tunnel and cushion against any unexpected risk

The Bang Sue Station – Hua Lamphong Station Section of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) is an underground section. The main civil structure includes railways (tunnel), train stations, etc., which have been in use for more than 18 years (from the commencement of operation on July 3, 2004). During the past train operation period, the Company had replaced the grout plugs and expansion rubbers in the tunnel wall and reinject PU Foam at the leaking points since 2009. However, as the materials used at the time have a useful life of approximately 10 years, the Company therefore has to change the materials in the same areas again and the areas where new seepages are found, totaling 48,000 points.

Therefore, the change of grout plugs and expansion rubbers in the tunnel wall and additional injection of PU Foam in this section of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Bang Sue Station – Hua Lamphong Station Section) will improve efficiency in water leakage prevention in the tunnel, which will otherwise affect the train system and train operation. This will further enhance the Company's train service efficiency and mitigate risk from damage caused by water leakage.

(11) The CEM service contractor is deeply familiar with the civil works of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line)

The replacement of equipment in the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) under Transaction 2 will include the change of grout plugs and expansion rubbers in the tunnel wall between Bang Sue Station and Hua Lamphong Station (MRT Blue Line Project) and additional injection of PU Foam to improve efficiency in water and sand leakage prevention in the tunnel.

The CEM service contractor (CK) is already familiar with the civil works, equipment, and system of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Bang Sue Station – Hua Lamphong Station Section) since CK was earlier engaged by MRTA under several contracts to undertake the design and construction of civil infrastructure (including civil works, underground stations, tunnels, train systems) of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), as well as the route along Bang Sue Station – Hua Lamphong Station Section under Transaction 2. Please refer to a summary of its credentials in Part 2, Clause 2.1 (1), of this report.

As a result, with its deep familiarity with the civil infrastructure of the MRT Blue Line Project, the CEM contractor (CK) under Transaction 2 possesses information relevant to the design and construction process and technology, and is acquainted with the tunnel structure and possible issues along with associated corrective measures, enabling it to promptly devise a work plan and efficiently perform the tasks.

2.2 Disadvantages of the Entering into the Connected Transaction

(1) The Company will depend on CK as the sole contractor for the CEM services

The engagement of a sole contractor for the CEM services (in line with the Company's policy described in Part 2, Clause 1, of this report) will result in the Company relying on only one party for the CEM services and expose it to an operational risk in case that the contractor is unable to perform the tasks under the agreements. However, the contractor may engage sub-contractors to perform the duties on its behalf. If the contractor fails to perform the tasks or terminates the services, the Company is able to engage a new contractor or sub-contractors of the contractor to directly provide the services, the same case as that occurred in 2004 - 2015. In this regard, the Company has to mitigate the risk arising from the engagement of new contractor or sub-contractors in order to avoid problems as previously occurred.

Moreover, the Company will start to undertake the simple CEM activities under the management of and knowledge transfer from the contractor (as per the details in Part 1, Clause 1.4, of this report), which can reduce such risk to a certain extent.

(2) The Company has to continuously rely on CK

CK has served as the contractor of the CEM services for all electric train projects of the Company, comprising of (a) the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), from November 17, 2015 to March 31, 2027; and (b) the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Klong Bang Phai Station – Tao Poon Station Section), from November 17, 2015 to October 31,

2023. As such, it can be deemed that the Company relies on CK as the main contractor for the CEM services for the electric train projects operated by the Company.

Moreover, CK is the Company's main contractor for the procurement and installation of M&E equipment for both the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) and the MRT Chalong Ratchadham Line Project (MRT Purple Line), and will also undertake the management, design and construction of civil infrastructure for the MRT Orange Line Project (West Section) and the design, procurement, installation and trial-run of M&E system for the MRT Orange Line Project (East and West Sections).

Therefore, the entering into the connected transactions will result in the Company's continued reliance on CK.

(3) The Company has no opportunity to compare CK's proposal for the CEM services with other service providers

The engagement of CK in Transaction 1 is the engagement of existing contractor of CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) in order to facilitate continuity and consistency of the CEM services for the whole MRT system operated by the Company, since this is the same contractor for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). While Transaction 2 is part of the current CEM service administration for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). Thus, the engagement will be done without an open bidding. The Company, therefore, has no opportunity to compare CK's proposal with other service providers. However, the Company possesses historical and current information on value of CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line), which can be used for comparison. In addition, it can refer to the cost estimation report prepared by InfraAsia, the Independent Expert on rail transportation, in making the decision.

CapAd has reviewed the consideration to be paid to the contractor of CEM services and found that the consideration for both Transaction 1 and Transaction 2 is below the cost estimated by the Independent Expert (InfraAsia).

(4) The transaction with CK is considered as a large transaction according to the connected transaction criteria, whereby the Company is required to seek for an approval for the connected transaction and appoint an independent financial advisor to provide opinion to its shareholders, thus incurring the additional expenses and necessitating disclosure of the project

Transaction 1 and Transaction 2 are considered as the significant connected transactions. As a result, the Company has to convene a shareholders' meeting to approve the transactions and appoint an independent financial advisor to render the opinion on this connected transaction. The Company will incur additional costs and will be required to disclose information on the scope of work, equipment details, and detailed appraised value of CEM Contracts, to ensure that shareholders have sufficient information to make informed decisions. In doing so, the Company's competitors will gain access to such information.

3. Potential Impacts in Case that the Company does not Enter into the Transactions with CK (the Connected Person)

Potential impacts on the Company in case that the Company does not enter into the transactions (Transaction 1 and Transaction 2) with CK, the Company's connected person, are as follows:

(1) The Company has to engage another CEM contractor for the MRT Chalong Ratchadham Line Project (MRT Purple Line) to replace CK, which is not considered as the breach of the Existing CEM Contract with CK, whereas

- The Company has to prepare the Term of Reference (TOR) to procure and select new CEM contractor who can continue the works from CK under the standard of work equivalent to that of CK in order not to affect the train operation and maintenance, according to the scope of maintenance works specified in the Concession Agreement for the MRT Purple Line between the Company and MRTA dated September 4, 2013.

The Company may proceed with such selection either in the open bidding or specific consideration of each contractor, which will consume time. Moreover, there shall be additional costs associated with the bidding and selection and the Company has to disclose scope of work to the third parties publicly, all of which create negative impact on the Company.

- The new CEM contractor will not be as familiar with civil infrastructure and work systems as CK, the current contractor. Thus,
 - (a) The new CEM contract has to study the works in order to comprehensively familiar with the operation system of the project in detail, including technical aspects, security procedure, procedure to access working areas, and time to conduct maintenance service, which has been strictly specified by the MRTA; and
 - (b) The new CEM contractor must send its employees to attend specified training courses so that their personnel can apply for permit to access the work area according to the criteria set by the Company. Alternatively, the Company must send its qualified employees to supervise the works, leading to the increase of operating costs. In addition, the Company may incur the risk that may arise from the unfamiliarity of the contractor's employees with the relevant systems which cause the damages to other equipment installed in the area.
- If the new CEM contractor is able to efficiently work in accordance with the scope of work, the Company will have more potential contractor who can support the Company's projects.
- Working teams of the Company and the new CEM contractor will require a longer period of time to adapt to work together than working with CK, including management and knowledge transfer according to the specified scope of work.
- (2) If the Company does not engage the new CEM contractor as described in (1) above, the Company will have to engage sub-contractors for each task, as well as manage the overall CEM works by itself, which may face the same problems as previously occurred (*Please refer to details in Part 2, Clause 1 of this report*). In addition, the Company will incur additional costs from the selection process of sub-contractors and the increase of the Company's personnel to responsible for overall project management instead of CK.
- (3) The Company will have to engage new contractor to replace the grout plugs and expansion rubbers of the tunnel wall, as well as inject additional PU Foam, who will be the different entity from the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which is not considered as the default of the Existing CEM Contract with CK, whereas
- The Company has to prepare the Term of Reference (TOR) to procure and select the new contractor who understand the civil infrastructure and required techniques, which will consume some period of time, resulting in delay of the maintenance work from the schedule (May 2023). As such, the Company will have more burden and incur the risk in case that the delay maintenance may affect the train operation.
 - The other contractors must send its employees to attend specified training courses so that their personnel can apply for permit to access the work area according to the criteria set by the Company. Alternatively, the Company must send its qualified employees to supervise the works, leading to the increase of operating costs. In addition, the Company may incur the risk that may arise from the unfamiliarity of the contractor's employees with the relevant systems which cause the damages to other equipment installed in the area.
- The Company and the contractors must cooperate with each other to appropriately plan the maintenance in order to minimize the problem relating to the access and redundant work in the same area as CK, who is the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line).
- The engagement of new contractor, who is a different entity from CK (the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line)), leads to the addition of external teams to recognize and gain experience in the civil infrastructure of the metro system, which may not be beneficial for retaining the Company's techniques and competitiveness.

The Company may not be able to control costs as currently budgeted because the budget proposed by CK is the one that relies on the bargaining power of CK (which is a large contractor) with the suppliers, allowing it to set the maintenance cost within such limit which is still lower than the cost estimated by the Independent Expert (InfraAsia).

4. Other Analyses

4.1 Analysis on the Company's Capability to Make the Payments in accordance with the CEM Contract with CK

The Company will make the payments to CK on a monthly basis throughout the entire period of the agreement from its operation cash flow in the total amount of Baht 1,630 million (VAT exclusive), whereby

(1) Consideration for Transaction 1 is equal to Baht 1,150 million (VAT exclusive), divided into (a) Year 1 – Year 4 (November 2023 – October 2027) totaling Baht 430 million, (b) Year 5 – Year 8 (November 2027 – October 2031) totaling Baht 470 million, and (c) the final 2 years (November 2031 – March 2033) totaling Baht 250 million;

(2) Consideration for Transaction 2 is equal to Baht 480 million (VAT exclusive), gradually paid on a monthly basis against work progress throughout the contractual period, from May 1, 2023 to April 30, 2025.

According to the separate financial statements of the Company for the year ended December 31, 2022, cash and equivalent and short-term investment were Baht 1,410.95 million and Baht 947.00 million, respectively. In addition, the Company generated Baht 2,313.44 million and Baht 5,136.97 million profit and cash flow from operation in 2022, respectively. Therefore, the Company has adequate liquidity to compensate CK throughout the entire period of the agreement.

4.2 The Appropriateness of the Conditions of the Relevant Agreements

CapAd has the opinion on the appropriateness of the conditions in the Draft CEM Contract with CK for Transaction 1 and Draft Amendment No. 5 of the CEM Contract with CK for Transaction 2 as follows:

(1) Payment Term

According to the CEM Contract, CK must provide the additional maintenance plan to the Company for approval on a monthly or quarterly basis.

The Company will compensate CK in monthly installment within 30 days upon receiving an invoice from CK, in the amount specified in the Draft CEM Contract with CK as the contractor of the CEM services for the MRT Purple Line Project and the MRT Blue Line Project. The Company is responsible for paying VAT on such compensation.

The payment will be made in accordance with progress as specified in the agreement, divided into group of equipment and based on actual Key Performance Indicator (KPI) in comparison with KPI target.

Such condition is the same as that in the current agreement to engage the contractor of the CEM services for the MRT Blue Line Project date November 17, 2015 and is normal condition in an agreement of similar services. Therefore, CapAd is of the opinion that the payment term is appropriate.

(2) Scope of Maintenance Service

Scope of work in the Draft CEM Contract with CK is based on the scope of work in the current agreement for the CEM services for the MRT Purple Line Project and the MRT Blue Line Project dated November 17, 2015, which have been reviewed against the Company's policies. Such scope of work defines roles and responsibilities for Preventive Maintenance and Corrective Maintenance for each type of equipment in detail.

The contractor of maintenance service is required to prepare Monthly, Quarterly, and Yearly Performance Report, Annual Maintenance Service Plan, Work Plan and Analysis, Asset Register and Spare Part Control, Internal Audit, and Management Review, as well as guideline on engagement of sub-contractors.

The scope of work of maintenance services is thoroughly and carefully detailed and in line with the scope of work of maintenance services specified in the Concession Agreement for the MRT Purple Line Project between the Company and MRTA dated September 4, 2013 and Concession Agreement for the MRT Blue Line Project dated August 1, 2000 and March 31, 2017. Therefore, CapAd is of the opinion that the scope of work of CK is appropriate.

(3) Performance assessment

The assessment will be conducted by using key performance indicator (KPI) as a measurement, with a calculation to adjust value of work. There is a clear numerical target for each work, and KPI is

weighted in each group of equipment, as well as formula for KPI calculation for each type of equipment, based on the measurement of each group of equipment.

There are detailed formulae for calculation of such assessments, which have been carefully and thoroughly determined. They are based on the Existing CEM Contract with the contractor of the CEM services for the MRT Purple Line Project and the MRT Blue Line Project dated November 17, 2015. Therefore, CapAd is of the opinion that the performance assessment in the agreement with CK is appropriate.

(4) Other conditions

Other conditions are normal conditions found in agreement of similar services and agreement to engage a contractor in general.

After considering the conditions of the Draft CEM Contract with CK, **the Independent Financial Advisor is of the opinion that conditions of the relevant agreements are appropriate and in the normal course of business.** The scope of work and responsibilities under the CEM Contract with CK that supports the CEM services is in line with the Concession Agreements with the MRTA.

5. Summary of the Independent Financial Advisor's Opinion on the Reasonableness of the Connected Transaction

The Company's main business is administering and providing the metro system services and the expressway network under the concession agreements, as well as pursuing commercial developments on those concessions.

The Company has been granted concessions for operation of 2 metro system projects from the Mass Rapid Transit Authority of Thailand ("MRTA"), comprising of (a) the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which has been under the Company's management since 2000 for the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station), and the MRT Blue Line Extension Project (Bang Sue Station – Tha Phra Station and Hua Lamphong Station – Lak Song Station), which completed the MRT Blue Line Project on March 30, 2020 and marked the beginning of Through Operation, and (b) the MRT Chalong Ratchadham Line Project (MRT Purple Line), which has been under the Company's management since 2013 and commenced commercial operation on August 6, 2016.

The Company is committed to operating the electric train services with efficiency, safety, rapidity, convenience, reliability, and punctuality. To ensure that the metro system service operation and maintenance are carried on uninterrupted and efficiently, together with its expertise, the Company therefore undertakes the operation by itself. Since maintenance services are specialized tasks that require a large number of specialists, the Company has a policy to outsource CEM administration to a third party, who has expertise in CEM, and concurrently develop its employees' skills in simple CEM maintenance works.

Since 2004, the Company engaged several contractors for CEM services for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) via open bidding process. It encountered problems in maintenance services and had conflicts with those contractors, mostly resulting from denial of responsibilities from some of the service providers, who cited the damage to CEM being caused by construction contractors which was out of their scope of work. The Company wasted a lot of time and manpower in negotiation with them and incurred expenses in addition to the value of maintenance works under the contract on many occasions. Therefore, the Company has a policy to outsource a third party, who is specialized in civil & architecture and electrical & mechanical systems, to be the sole contractor to undertake the CEM services for the MRT Blue Line Project in order to solve such issue. In 2015, the Company engaged CK as the contractor of the CEM services for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) in place of the former contractor, including the engagement of CK as the contractor of the CEM services for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) and the MRT Chalong Ratchadham Line Project (MRT Purple Line) on a fixed fee basis. Consequently, the Company has been able to control maintenance costs and reduce difficulties in coordination with the contractor, as well as eliminated the conflicts with service providers. Throughout the period it has undertaken the contract to present, CK has performed its duties smoothly in accordance with the scope and terms of the contract.

Therefore, in order to facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) and comply with the Company's policy to outsource a third party, who is specialized in civil & architecture and electrical & mechanical systems, to administer maintenance service as it requires a large number of specialists (the Company has undertaken simple CEM maintenance works, including procurement of parts, supplies, and basic maintenance equipment under the management and knowledge transfer from the service contractor), as well as to leverage CK's current role as the contractor of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) since November 2015, with capable personnel and familiarity with the MRT Project's working system (such as security, procedure to access working areas, and time to conduct maintenance services), which has been strictly specified by MRTA, the Company accordingly decides to engage CK as the contractor of the CEM services as follows:

Transaction 1: Extension of the CEM Contract the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Khlong Bang Phai Station – Tao Poon Station Section)

The aims of engaging CK as the contractor are to facilitate continuity and stability of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) under the same contractor as the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), both of which are connected at Tao Poon Station, to harmonize the maintenance services plan of the Company, to operate the train

system efficiently and smoothly, to simplify the management of only one administrator instead of dealing with several ones, and to reduce coordination effort, risk, and problems that may impact train operation. The CEM services are critical to the reliability of train operation in order to provide service with no interruption for all 365 days in a year; and

Transaction 2: The replacement of grout plugs and expansion rubbers in the tunnel wall in the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Bang Sue Station - Hua Lamphong Station Section)

There will be a change of grout plugs and expansion rubbers in the tunnel wall and additional injection of PU Foam,⁸ which is the civil infrastructure of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) (Bang Sue Station - Hua Lamphong Station Section), that has been in use for nearly 19 years (since the commencement of commercial operation on July 3, 2004). Moreover, the expansion rubbers are wearing out and will relatively cause seepages of water and sand into the tunnel. The Company had changed the grout plugs and expansion rubbers and reinjected the PU Foam to improve leakage prevention at 24,000 points (the maintenance at the leakage point, by which the Company gradually replaced the grout plugs and expansion rubbers and injected PU Foam since 2009 by the contractor who is not CK, with the performance guarantee period of 6 months) out of the total 194,000 points (the Company, by the CEM contractor, has periodically checked the tunnel wall of the MRT projects in order to prevent train operation from the damages. The contractor has informed the Company regarding the result of the survey so that the Company can prepare maintenance plan and budget for the replacement of grout plugs and expansion rubbers and the injection of additional PU Foam at the points with history of leakage (replacement of deteriorated equipment) and the points where additional leakage are found, which is the work that the Company has to responsible for additional expenses that may arise). However, as the expansion rubbers and PU Foam have a useful life of 10 years, the Company therefore needs to change the grout plugs and expansion rubbers and reinject the PU Foam in the same areas (24,000 points) and the areas where new seepages are found (24,000 points), totaling 48,000 points, to enhance the prevention of water and sand leakages into the tunnel, which will otherwise interrupt the train system and train operation. CK, who was the contractor of CEM services and involved in the procurement, installation, and testing of M&E equipment, is therefore well acquainted with the civil infrastructure and systems of the MRT Blue Line Project.

Advantages and benefits of the entering into the Connected Transaction are as follows:

Advantages and Benefits Relating to the Entering into the Two Transactions (Transaction 1 and Transaction 2)

- (1) The CEM service contractor (CK) is a large construction contractor with knowledgeable and competent staff and first-hand experience and expertise in works relating to the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), as well as other electric train projects, is well-prepared in all aspects for the administration of the CEM services for the Company under Transaction 1 and Transaction 2.
- (2) The CEM contractor (CK) will perform the tasks at full capacity, without abandoning the job, in order to preserve its investment value in the Company. On the contrary, if the transaction is executed with a third party, it may not pay full attention to the quality of work or may abandon the job with no concern about a longstanding relationship.
- (3) The CEM contractor (CK) has no record of job abandonment and has strong financial position and adequate liquidity for its business in order to ensure the smooth operation of the project. In addition, CK is one of the construction companies that can carry out construction work that is complicated and requires sophisticated technology, such as the construction of large-scale infrastructure projects. Therefore, the Company is confident that the contractor will be able to deliver the work under the CEM Contract and will not abandon the work.
- (4) The coordination and operation will be flexible. The Company will be able to negotiate and agree on all conditions and details with CK, as well as facilitate the coordination and operation, rapidly and flexibly since the professional team of CK and the Company have worked together on numerous projects and are well acquainted with one another. Obstacles to their working together throughout the contract period can also be eliminated.

⁸ Please refer to Footnote 5 on page 8.

- (5) The Company will be able to achieve on-budget targets for CEM. As such, the Company will be able to control the CEM budgets over the 10-year contract term of the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the cost of equipment replacement over the 2-year term of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). Such scope of work is in line with those outlined in the Concession Agreements of the MRT Purple Line Project and the MRT Blue Line Project with the MRTA, and under the requirements of the Company.
 - (6) The Company will indirectly benefit from CK's protection of confidential technical information and other crucial information of the electric train projects, especially the metro system, within the group, which will be substantially beneficial to the Company's competitiveness.
- In addition, the Company can reduce burden on employing workforce and managing a large number of specialists for CEM services.

Specific Advantages and Benefits of Transaction 1

- (7) This will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) of the existing service provider. Thus, the extension of the CEM Contract with CK (Transaction 1), which is the existing contractor and is familiar with the tasks in all respects, will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) over the next 10 years.
- (8) The service contractor is acquainted with the CEM and train system of the MRT Chalong Ratchadham Line Project (MRT Purple Line) as it is engaged by the MRTA as the construction contractor for civil works, including the procurement, installation and trial-run of electric train system. Therefore, it possessed information relevant to the design and construction processes, which enable CK to timely analyze any failures and implement corrective measures and would be considerably useful for the CEM and the replacement of equipment in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)).
- (9) This will facilitate continuity of the CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) and the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which are under through operation. The Company and the contractor will be able to efficiently devise a maintenance plan for all relevant systems, and the maintenance plan implementation, which includes the equipment replacement in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), can be carried out with greater efficiency than by hiring several contractors to handle such tasks.

Specific Advantages and Benefits of Transaction 2

- (10) The replacement of grout plugs and expansion rubbers in the tunnel wall of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) will enhance water and sand leakage prevention in the tunnel and cushion against any unexpected risk. This will further enhance the Company's train service efficiency.
- (11) The CEM contractor (CK) under Transaction 2 is deeply familiar with the civil works of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line) since it was earlier engaged by MRTA under several contracts to undertake the design and construction of civil infrastructure (including civil works, underground stations, tunnels, train systems) of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), as well as the Bang Sue Station – Hua Lamphong Station Section. As a result, it possesses information relevant to the design and construction process and technology, and is acquainted with the tunnel structure and possible issues along with associated corrective measures, enabling it to promptly devise a work plan and efficiently perform the tasks.

The entering into Transaction 1 and Transaction 2, which are connected transactions, has the following disadvantages and risks.

- (1) The Company will depend on CK as the sole contractor of the CEM services. The engagement of a sole contractor of the CEM services will result in the Company relying on only one party for the CEM services and expose it to an operational risk in case that the contractor is unable to perform the tasks under the agreements. However, the Company will start to undertake the simple CEM activities under the management of and knowledge transfer from the contractor, which can reduce such risk to a certain extent.

- (2) The Company has to continuously rely on CK.
- (3) The Company has no opportunity to compare CK's proposal for the CEM services with other service providers. The engagement of CK in Transaction 1 is the engagement of existing contractor of CEM services for the MRT Chalong Ratchadham Line Project (MRT Purple Line) in order to facilitate continuity and consistency of the CEM services for the whole MRT system operated by the Company while Transaction 2 is part of the current CEM service administration for the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line). CapAd has reviewed the consideration to be paid to the contractor of CEM services and found that the consideration for Transaction 1 and Transaction 2 is below the cost estimation by the Independent Expert (InfraAsia).
- (4) The transaction with CK is considered as a large transaction according to the connected transaction criteria, whereby the Company is required to seek for an approval for the connected transaction and appoint an independent financial advisor to provide opinion to its shareholders, thus incurring additional expenses and necessitating disclosure of the project's cost and maintenance details.

Potential impacts on the Company in case that the Company does not enter into the transactions with CK (the connected person)

Potential impacts on the Company in case that the Company does not enter into the transactions (Transaction 1 and Transaction 2) with CK, the Company's connected person, are as follows:

- (1) The Company has to engage another CEM contractor for the MRT Chalong Ratchadham Line Project (MRT Purple Line) to replace CK, which is not considered as the breach of the Existing CEM Contract with CK, whereas
 - The Company has to prepare the Term of Reference (TOR) to procure and select new CEM contractor who can continue the works from CK under the standard of work equivalent to that of CK in order not to affect the train operation and maintenance, according to the scope of maintenance works specified in the Concession Agreement for the MRT Purple Line between the Company and MRTA dated September 4, 2013.
The Company may proceed with such selection either in the open bidding or specific consideration of each contractor, which will consume time. Moreover, there shall be additional costs associated with the bidding and selection and the Company has to disclose scope of work to the third parties publicly, all of which create negative impact on the Company.
 - The new CEM contractor will not be as familiar with civil infrastructure and work systems as CK, the current contractor. Thus,
 - (a) The new CEM contract has to study the works in order to comprehensively familiar with the operation system of the project in detail, including technical aspects, security procedure, procedure to access working areas, and time to conduct maintenance service, which has been strictly specified by the MRTA; and
 - (b) The new CEM contractor must send its employees to attend specified training courses so that their personnel can apply for permit to access the work area according to the criteria set by the Company. Alternatively, the Company must send its qualified employees to supervise the works, leading to the increase of operating costs. In addition, the Company may incur the risk that may arise from the unfamiliarity of the contractor's employees with the relevant systems which cause the damages to other equipment installed in the area.
If the new CEM contractor is able to efficiently work in accordance with the scope of work, the Company will have more potential contractor who can support the Company's projects.
 - Working teams of the Company and the new CEM contractor will require a longer period of time to adapt to work together than working with CK, including management and knowledge transfer according to the specified scope of work.
- (2) If the Company does not engage the new CEM contractor as described in (1) above, the Company will have to engage sub-contractors for each task, as well as manage the overall CEM works by itself, which may face the same problems as previously occurred (*Please refer to details in Part 2, Clause 1 of this report*). In addition, the Company will incur additional costs from the selection process of sub-contractors and the increase of the Company's personnel to responsible for overall project management instead of CK.
- (3) The Company will have to engage new contractor to replace the grout plugs and expansion rubbers of the tunnel wall, as well as inject additional PU Foam, who will be the different entity from the

current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line), which is not considered as the default of the Existing CEM Contract with CK, whereas

- The Company has to prepare the Term of Reference (TOR) to procure and select the new contractor who understand the civil infrastructure and required techniques, which will consume some period of time, resulting in delay of the maintenance work from the schedule (May 2023). As such, the Company will have more burden and incur the risk in case that the delay maintenance may affect the train operation.
- The other contractors must send its employees to attend specified training courses so that their personnel can apply for permit to access the work area according to the criteria set by the Company. Alternatively, the Company must send its qualified employees to supervise the works, leading to the increase of operating costs. In addition, the Company may incur the risk that may arise from the unfamiliarity of the contractor's employees with the relevant systems which cause the damages to other equipment installed in the area.
- The Company and the contractors must cooperate with each other to appropriately plan the maintenance in order to minimize the problem relating to the access and redundant work in the same area as CK, who is the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line).

The engagement of new contractor, who is a different entity from CK (the current CEM contractor of the MRT Chaloem Ratchamongkhon Line Project (MRT Blue Line)), leads to the addition of external teams to recognize and gain experience in the civil infrastructure of the metro system, which may not be beneficial for retaining the Company's techniques and competitiveness.

- The Company may not be able to control costs as currently budgeted because the budget proposed by CK is the one that relies on the bargaining power of CK (which is a large contractor) with the suppliers, allowing it to set the maintenance cost within such limit which is still lower than the cost estimated by the Independent Expert (InfraAsia).

After considering the objectives and necessities of the transactions as well as advantages, disadvantages, benefits, risks, and the potential impacts, the Independent Financial Advisor is of the opinion that the Company and CK will gain more benefits in business operations, with limited disadvantages and risks. The Company can focus on running the most efficient train operation without having to worry about CEM works pertaining to the Company's policy. Therefore, **the entering into the connected transactions is reasonable.**

Part 3: Opinion of the Independent Financial Advisor on the Appropriateness of the Price of the Connected Transaction

The Company shall engage CK as the contractor for CEM services for the MRT Purple Line Project and the MRT Blue Line Project with the total consideration of Baht 1,630 million (VAT exclusive). Details are as follows:

- (1) Transaction 1: The extension of the CEM Contract for the MRT Chalong Ratchadham Line Project (MRT Purple Line) (Klong Bang Phai Station - Tao Poon Station Section), including the replacement of equipment in some systems (such as Low Voltage System and Walk-Through Metal Detector, and Environmental Control System (replacement of stations' air conditioners)), for a period of 10 years, starting from November 1, 2023 to October 31, 2033, with the total consideration of Baht 1,150 million (VAT exclusive)
- (2) Transaction 2: Replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section), with the total consideration of Baht 480 million (VAT exclusive)

The Independent Financial Advisor has considered the appropriateness of price based on the information and assumptions provided by the Company and CK, interviews with executives and related staffs of the Company, cost estimation report for the CEM services for the MRT Purple Line Project (Klong Bang Phai Station - Tao Poon Station Section) and the MRT Blue Line Project (Bang Sue Station - Hua Lamphong Station Section) dated February 2018 conducted by InfraAsia (Thailand) Limited ("Independent Expert" or "InfraAsia"), the CEM Contract for the MRT Blue Line Project and the MRT Purple Line Project, as well as the information disclosed to the public, the information disclosed on the websites of the SEC (www.sec.or.th) and the SET (www.set.or.th).

However, the opinion of the Independent Financial Advisor is based on the assumption that all of the previously mentioned information and documents are complete and accurate and the consideration is made on current situation and the information. Any change or future incident may significantly impact the business operation and the decision of the shareholders concerning the appropriateness of the connected transaction.

The Independent Financial Advisor views that InfraAsia is a reliable independent expert on the valuation of rail projects. InfraAsia is a company under Infra Asia Group, with offices in Hong Kong and Thailand, that has the team with extensive experience in cost estimation for rail projects and is widely-accepted by government agencies and corporates in Thailand and overseas. It has experience in valuing projects with total value of more than \$21 billion and has experience in valuing operating expenses (OPEX) for the total value of more than \$6 billion. InfraAsia is the project advisor for the Mass Rapid Transit Authority of Thailand (MRTA), the State Railway of Thailand (SRT), and clients in Thailand include the Company, and BTS Rail Mass Transit Growth Infrastructure Fund (BTSGIF). *(Please refer to the credentials of InfraAsia in Thailand and overseas in Attachment of this report)*

The Independent Financial Advisor has considered the appropriateness of the price by comparing with the cost estimation by the Independent Expert and checked the consideration of CEM services of the MRT Purple Line Project (term of the CEM Contract of the MRT Purple Line Project is approximately 8 years,⁹ from November 17, 2015 to October 31, 2023) as the additional information for the shareholders.

The Independent Financial Advisor interviewed InfraAsia on the concepts, assumptions, and approaches used in the preparation of the Cost Estimate Report, as well as reviewed InfraAsia's model and assumptions of Transaction 1 and Transaction 2, and found that prices are at the industry standard and cost of material equipment is close to those displayed on various websites of suppliers and/or close to quotations from suppliers. However, the Independent Financial Advisor based the number of employees, working hours, and number and properties of materials on InfraAsia's estimates as it is technical information that requires engineering knowledge and experience.

Subsequent to the study of the related information and document of the Company and CK as well as other related information, the Independent Financial Advisor summarizes the opinion on the appropriateness of the price of the connected transaction as follows:

⁹ Service term is divided into 2 periods which are (1) mobilization period of 0.5 year and (2) maintenance period of 7.5 years.

1. Transaction 1: The Extension of the CEM Contract for the MRT Purple Line Project

The CEM Contract for the MRT Purple Line Project has a term of 10 years from November 1, 2023 – October 31, 2033 and total consideration of Baht 1,150 million (VAT exclusive) (a lump sum basis), which shall be paid in monthly installments for 10 years. Since the scope of work and services of CK is based on technical service information which requires specialized knowledge and expertise, therefore, in consideration of the price appropriateness on the agreement to engage CK as the contractor for the MRT Purple Line Project, the Independent Financial Advisor has considered a comparison between the consideration to be paid to CK and the cost estimation report for the CEM services for the MRT Purple Line Project (Klong Bang Phai Station - Tao Poon Station Section) and the MRT Blue Line Project (Bang Sue Station - Hua Lamphong Station Section), dated February 2023 by InfraAsia.

The Company has engaged CK as the contractor for the CEM works for the MRT Purple Line Project, while the term of maintenance services will end on October 31, 2023. Thus, the Company intends to extend the period of the agreement for the MRT Purple Line for a period of 10 years (from November 1, 2023 to October 31, 2033) and add more scope of works to such agreement.

Summary of scope of CEM services for the MRT Purple Line Project is as follows:

- The CEM Contract for the MRT Purple Line Project for a period of approximately 8 years (November 17, 2015 - October 31, 2023) ("Existing CEM Contract") has a scope of work as follows:

System	Level 1	Level 2	Level 3	Level 4
Fire Detection and Alarm System - Main fire alarm control panel - Door monitoring system - Fire alarm work station	✓	✓	✓	✓
Fire Protection System - FM200 system - Inergen Gas system	✓	✓	✓	✓
Lift and Escalator System - Lift - Escalator	✓	✓	✓	✓
Environmental Control System - Water system - Air distribution system - Split type system - Mechanical ventilation system - Control system - Accessory	✓	✓	✓	✓
Low Voltage System - Main distribution system - Emergency power system - Earthing and lightning protection - Building management system - High voltage for administrative building	✓	✓	✓	✓
Lighting and Receptacles System - Lighting system - Power outlet	✓	✓	✓	✓
Civil and Architecture	✓	✓		

- The CEM Contract for the MRT Purple Line Project for a period of 10 years (November 1, 2023 - October 31, 2033 ("New CEM Contract")) has a scope of work as follows:

System	Level 1	Level 2	Level 3	Level 4
Fire Detection and Alarm System - Main fire alarm control panel - Door monitoring system - Fire alarm work station	✓*	✓*	✓	✓
Fire Protection System - FM200 system - Inergen Gas system	✓*	✓*	✓	✓
Lift and Escalator System - Lift - Escalator	✓	✓	✓	✓
Environmental Control System - Water system - Air distribution system - Split type system	✓*	✓*	✓	✓

System	Level 1	Level 2	Level 3	Level 4
- Mechanical ventilation system - Control system - Accessory				
Low Voltage System - Main distribution system - Emergency power system - Earthing and lightning protection - Building management system - High voltage for administrative building	✓*	✓*	✓	✓
Lighting and Receptacles System - Lighting system - Power outlet	✓*	✓*	✓	✓
Civil and Architecture^{1/}	✓*	✓*	✓	✓
Walk – Through Metal Detector^{2/}	✓*	✓*	✓	✓

Remark:

* BEM will supply manpower, spare parts, and tools to perform the simple maintenance works under the supervision of CK while CK is responsible for the management, knowledge transfer, and work control to achieve the specified KPI.

1/ Under the Existing CEM Contract, scopes of work covers only level 1 – 2 of maintenance services, while under the New CEM Contract, the scopes of work for civil structure shall cover level 1 – 4 of maintenance services.

2/ Walk-through metal detector is an additional scope of work for the New CEM Contract.

The maintenance services are divided into 5 levels, which are:

Level 1: Cleaning, Inspections, and Replacement of Consumables

Maintenance activities that do not require any special tools and that can be done by staff with basic technical training. Level 1 maintenance tasks cover all railway systems assets, including railway systems, trains, stations, depots, landscape, and viaducts. Level 1 maintenance tasks shall typically include:

- Cleaning of the equipment, trains, stations, depots, and other buildings;
- Replacement of lamps, fuses, seats, and other impaired equipment;
- Replacement of removable components when necessary (e.g. train, station seats);
- Minor repairs and adjustments; and
- Gardening and lawn care practices.

Level 2: Routine Preventive Maintenance (cover all assets of railway systems)

Level 2 maintenance activities is the tasks pertaining to maintenance service plan, which normally include:

- Preventive maintenance that require simple procedures or easy-to-use test equipment, including inspections, tests, checks, measurements, technical cleaning, lubrication; and
- Maintenance safety checking which must be handled by qualified technicians and replacement of simple components to ensure that the railway systems, rolling stock, stations, and facilities can be provide service without any risk to safety to passenger or staffs and damage to systems or equipment.

Level 3: Complex Preventive and Corrective Maintenance

This level of maintenance tasks can only be performed by qualified technicians or engineers, including corrective maintenance procedure using complex-to-use test equipment, major preventive maintenance, change of small parts and parts require heavy lifting devices, removal of major assemblies such as bogie, lifts, escalators, traction, and replacement of worn parts.

Level 4: Overhaul

The overhaul requires highly skilled technical staff and may require advanced technical instrument, including disassembly of assets and assets condition assessment, overhaul work activities, and major component repair.

Level 5: System Enhancements and Renewals

It is the task that require highly skilled technical staff with detailed knowledge of the asset design and operation, including system improvements (including software), addition of new features to meet customer expectations, improvement necessary to enhance maintainability and reliabilities, and replacement of obsolete components.

1.1 Cost estimation for the CEM services of the MRT Purple Line Project by the Independent Expert (InfraAsia)

InfraAsia evaluated the maintenance cost for CEM works of the MRT Purple Line Project based on historical data and technical documentation provided by BEM. Historical data has been accumulated by BEM for many years, including nearly 20 years for the MRT Blue Line Project and 8 years for the MRT Purple Line Project. InfraAsia has reviewed the data as far as practicable and sees no obvious issues related to its use.

The Spreadsheet Cost Model, developed by InfraAsia, is applied to the cost estimation for the CEM services of the MRT Purple Line Project. The Spreadsheet Cost Model has been generally used and widely-accepted by numerous government agencies, railway operators, and main contractors.

InfraAsia divides scope of work to 10 cost centers for the CEM services of the MRT Purple Line Project as follows:

- (1) Fire alarm and protection systems
- (2) Lifts and escalators
- (3) Environmental control systems
- (4) Low voltage electrical distribution and lighting systems (including renewal of UPS batteries)
- (5) Civil structures & architecture (excluding pumping & drainage system)
- (6) Walk through metal detectors
- (7) Management and logistics
- (8) Overheads
- (9) Profit
- (10) Contingency

Assumptions for the cost estimation for the CEM services for the MRT Purple Line Project for the 10-year period can be summarized as follows:

- Staff costs: InfraAsia estimates number of staff for the service periods based on the required levels of maintenance, complexity of each system, and types and quantities of equipment. Annual salary adjustments are allocated for each level of staff based on Thailand industry standard.
- Spare parts and materials: InfraAsia estimates cost of spare parts and materials based on the historical data provided by BEM for each main cost center. Due to the nature of the routine preventative and corrective maintenance, it is expected that the annual requirement will be relatively stable during the service periods, with little annual variation. Therefore, the model assumes such consistent requirement for spare parts and materials quantities and their associated costs each year with annual increase for inflation. An additional 1% notional annual increment has been included for all material to recognize the potential for slight equipment failure rate increase as the MRT Purple Line Project is in mature stage and entering its second decade of operation. The MRT Purple Line Project is an existing railway with a corresponding existing inventory of maintenance spare parts and materials. It is assumed that this inventory will continue to be used for the 10-year period, with no significant increase.
- InfraAsia assumes that there shall be the replacement of air conditioner of the stations which has been used at its useful life. It is assumed that 25 air conditioners shall be replaced during the first 2 years of the contract.
- The existing walk-through metal detector has a problem with the reliability of the metal detection results. Thus, InfraAsia estimates the replacement of 30 walk-through metal detectors in the first year, after which the operator shall assess the condition and reliability of the remaining detectors. InfraAsia assumed the gradual replacement of walk-through metal detectors during the 6th – 10th year of the contract.
- Any cost associated with the running of required workshop and office facilities are included in the overhead costs.
- Contingency: InfraAsia estimates contingency cost to include both performance risk and occasional higher-than-expected equipment failure rate for the MRT Purple Line Project. The contingency is assumed at 5% of total material and labor costs.

InfraAsia is having a high level of confidence that the concept maintenance regime used in preparing this cost estimation report is robust and sufficient to meet these targets. However, InfraAsia is

unable to determine the unexpected equipment failures and events that occur occasionally that cannot be predicted or mitigated in advance such as one-off events that may occasionally result in failure to meet short term performance targets and thus incur penalty payment.

- Most of the equipment and material used are locally sourced. Thus, foreign exchange risk is limited.
- All costs are based on a cost reference as of February 1, 2023. The cost estimation is based on historical data of the MRT Purple Line Project, engineering judgement of InfraAsia, and current equipment and labor costs.
- Inflation rate is assumed at 3% per annum.
- VAT is not applied to the model.

Cost estimation for the CEM services of the MRT Purple Line Project by InfraAsia can be summarized as follows:

(Unit: Baht million)

CEM Services of the MRT Purple Line Project		Cost Estimation by InfraAsia	Consideration to be Paid to CK
		10 years (November 1, 2023 – October 31, 2033)	
1	Fire alarm and protection	28.23	
2	Lift and escalators	658.03	
3	Environmental control systems	51.02	
4	Low voltage electrical distribution and lighting systems	69.90	
5	Civil structures and architecture	27.02	
6	Walk-through metal detector	21.59	
7	Management, consumables, and engineering staffs	94.93	
Sub-total of 1 - 7		950.71	
8	Overhead and others ^{1/}	115.61	
9	Profit ^{2/}	95.07	
10	Contingency ^{3/}	47.54	
Total CEM costs		1,208.92	1,150.00^{4/}
Average CEM costs per year		120.89	115.00

Remark: Estimated based on InfraAsia's database, equipment price from suppliers, and information derived from BEM.

- 1/ Comprising of overhead, insurance premium, and other expenses, accounting for approximately 12.16% of total material and labor costs (Sub-total 1 - 7 from the above table), divided into (a) overhead of approximately 10% of total material and labor costs, (b) insurance premium of approximately 2 % of total material and labor costs, and (c) vehicles and fuel costs.
- 2/ Profit is estimated at 10% of total material and labor costs (Sub-total 1 - 7 from the above table), which is in line with the industry standard.
- 3/ Contingency is estimated at 5% of total material and labor costs (Sub-total 1 - 7 from the above table).
- 4/ Consideration for the engagement of CK is on the lump sum basis (no detailed value of each task).

The Independent Financial Advisor views that the cost estimation model of InfraAsia, which has been developed and used in numerous public and private railway projects and widely-accepted by government agencies, railway operators, and main contractors, is acceptable and reliable. *(Please refer to credentials of InfraAsia in Attachment of this report)* In addition, InfraAsia has updated its assumptions to be consistent with the historical performance and maintenance works of the MRT Purple Line Project as well as technical documents provided by the Company which have been accumulated for several years. InfraAsia has also reviewed the data as far as practicable and see no obvious issues related to its use.

The Independent Financial Advisor also views that the assumptions applied to the cost estimation by InfraAsia are acceptable and reflect current prices of spare parts and equipment and current wages and employment environment of Thailand's railway industry. InfraAsia has taken into consideration the specific characteristic of the MRT Purple Line Project and the performance target of the Concession Agreement of the MRT Purple Line Project. Besides, the Independent Financial Advisor checked with other railway operators and found that the CEM contractors would estimate profit, effect from delay of handover work, effect from delay of payment, and contingency for totaling around 20% - 30% of total material and labor costs. In this case, InfraAsia estimated total overhead, insurance, contingency, profit, and other expenses of approximately 27.16% of total material and labor costs (derived from 12.16% + 10% + 5% from the above table), which is in range of estimation of other maintenance contractors and the industry standard.

Conclusively, the Independent Financial Advisor is of the opinion that the appropriate approach to determine fair value of the transaction is the comparison with the cost estimation by InfraAsia, which is equal to Baht 1,208.92 million (VAT exclusive) since InfraAsia is the expert with knowledge and experience in determining value of CEM works of the electric railway projects and it is the appraisal of CEM works of the MRT Purple Line Project in accordance with the scope of service of the Company.

When comparing the proposed consideration to be paid to CK for the CEM services for the MRT Purple Line Project (Baht 1,150 million (VAT exclusive)) and the estimated costs for the CEM service prepared by InfraAsia (Baht 1,208.92 million (VAT exclusive)), the consideration to be paid to CK is lower than the estimated costs (by InfraAsia) by Baht 58.92 million, or lower by 4.87% of the estimated costs by InfraAsia. Thus, **the consideration to be paid to CK for Transaction 1 is appropriate.**

1.2 **Comparison between the Consideration of the CEM Services for the MRT Purple Line Project in Accordance with New CEM Contract and the Existing CEM Contract – As Information for the Shareholders Only**

Presently, the Company has been granted concessions for 2 mass rapid transit system projects from the Mass Rapid Transit Authority of Thailand ("MRTA"), namely the MRT Blue Line Project and the MRT Purple Line Project. It has engaged CK as the CEM contractor for both projects. However, it may be inappropriate to compare value of CEM services of the MRT Purple Line Project to that of the MRT Blue Line Project since the format, equipment, and scope of service for the CEM works of the MRT Initial Blue Line and the MRT Blue Line Extension are differ from those of the MRT Purple Line Project, such as the different characteristics of underground and elevated electric train, number of station, size of station, distance, number of elevator and escalator, backup power system, size of depot, and useful life of assets.

As such, the Independent Financial Advisor compares consideration of the CEM services for the MRT Purple Line Project in accordance with the New CEM Contract and the Existing CEM Contract as the information for the shareholders only.

(Unit: Baht Million)

The MRT Purple Line Project (Information for Shareholders Only – Cannot Be Used for Direct Comparison)	New CEM Contract			Existing CEM Contract
	Engagement of CK ^{1/}	Additional Expenses of the Company ^{2/}	Total Value of CEM Works	Value of CEM Contract with CK ^{3/}
	(1)	(2)	(1) + (2)	
Type of project	Elevated metro project			
Route	Khlong Bang Phai Station – Tao Poon Station			
Distance	23 kilometers			
Number of stations	16 stations			
Contract period	10 years (Nov. 2023 – Oct. 2033)			8 years (Nov. 2015 – Oct. 2023) ^{4/}
Total value of CEM works (VAT exclusive)	1,150.00	818.56^{2/}	1,968.56	1,520.00
Average value of CEM works per year (VAT exclusive)	115.00	81.86	196.86	202.67^{5/}

Remark:

- 1/ Consideration in accordance with the Draft CEM Contract with CK as the contractor for the MRT Purple Line Project for the period of 10 years ("New CEM Contract").
According to the New CEM Contract, the Company shall procure staffs, equipment, and tool for the works under the scope of work for the simple CEM works under the supervision and recommendation of CK, whereas CK shall responsible for the management, knowledge transfer, and control in order to meet the specified KPI.
- 2/ The Company expects that there will be additional employee expenses of approximately Baht 593.29 million and cost of equipment, tools, and outsourcing of approximately Baht 225.27 million, totaling Baht 818.56 million of additional expenses of the Company (over 10 years).
- 3/ Consideration for the CEM works of the MRT Purple Line Project in accordance with the Amendment No. 1 of the Engagement Agreement with CK as the project manager and service provider for the procurement and installation of M&E systems of the MRT Purple Line Project: Bang Yai – Rat Burana (Bang Yai – Bang Sue Section) (Khlong Bang Phai Station – Tao Poon Station) by adding the scope of work for CEM services of the MRT Purple Line Project dated November 17, 2015 (Existing CEM Contract)
According to the Existing CEM Contract, CK shall procure staffs, equipment, and tool for the works under the scope of work for all CEM works (both complicated and simple works in Maintenance Level 1 – 4).
- 4/ Service term is divided into 2 periods, which are (1) mobilization period of approximately 0.5 year and (2) maintenance period of 7.5 years.
- 5/ Calculated based on consideration value in accordance with the contract / maintenance period (Baht 1,520 million / 7.5 years = Baht 202.67 million)

From the above table, value of the New CEM Contract is equal to Baht 1,150.00 million, equivalent to average value of Baht 115.00 million per year, whereas average value of the Existing CEM Contract is equal to Baht 202.67 million per year.

However, value of the New CEM Contract and the Existing CEM Contract may not be completely comparable since some scope of work of such 2 contracts are different (*Please refer to scope of work in Part 3, Clause 1 on page 39 - 40 of this report*). The New CEM Contract has additional scope of work which are (a) Walk-Through Metal Detector work (Maintenance Level 1 – 4) and (b) civil infrastructure work (Maintenance Level 3 – 4). On the other hand, CK's works will decrease since the Company shall procure staffs, equipment, and tools for the Maintenance Level 1 – 2 under the supervision and recommendation of CK, by which CK shall responsible for the management, knowledge transfer, and control of the works to meet the specified KPI.

2. Transaction 2: Replacement of the Grout Plugs and Expansion Rubbers of the Tunnel Wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section)

In considering the appropriateness of the consideration to be paid to CK for the CEM services of the MRT Blue Line Project concerning the replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section) in a total amount of Baht 480.00 million (VAT exclusive), since the scope of work and services of CK is based on technical service information which requires specialized knowledge and expertise, therefore, the Independent Financial Advisor has considered a comparison between the consideration to be paid to CK and the cost estimation report for the CEM services for the MRT Purple Line Project (Klong Bang Phai Station - Tao Poon Station Section) and the MRT Blue Line Project (Bang Sue Station - Hua Lamphong Station Section), dated February 2023 by InfraAsia.

The scope of the works includes the replacement of grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section). Scope of work and materials/equipment required are summarized as follows:

- (1) Replacement of grout plugs and expansion rubbers for 48,000 points along the tunnel wall of the MRT Blue Line (Bang Sue Station - Hua Lamphong Station Section)
- (2) Increase the efficiency of water prevention of 72 points of omega joint (4 pints per station)
- (3) Materials include grout plugs, expansion rubbers with stainless plug set, and PU Foam for filling and sealing.
- (4) Tools used for the maintenance works
- (5) Emergency equipment in case of sand leaks while performing maintenance works
- (6) Fuel for maintenance vehicles
- (7) Offices, workshop, and storage
- (8) 20 teams of manpower (4 staffs per team)
- (9) 2 years of maintenance period and 3 months of mobilization period

Cost estimation for the replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Hua Lamphong Station - Bang Sue Station Section) by the Independent Expert (InfraAsia)

InfraAsia evaluated the maintenance cost of CEM works of the MRT Blue Line Project based on historical data and technical documentation provided by BEM, historical data on the maintenance/replacement of the grout plus and expansion rubbers of the Company, as well as nearly 20 years and 8 years of maintenance information of the MRT Blue Line Project and the MRT Purple Line Project, respectively. InfraAsia has reviewed the data as far as practicable and sees no obvious issues related to its use.

InfraAsia divides scope of work to 10 cost centers for replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section) as follows:

- (1) Equipment includes tools, works platforms, trolleys, PU Foam injection pumps, emergency equipment (i.e. sand collection, water pumps, hoses)
- (2) Materials includes grout plugs, expansion plug set and PU Foam
- (3) Transportation includes pool cars, vans, lorry's, work crew transport, and fuel
- (4) Electricity includes electric, battery tools, and tunnel lighting
- (5) Staff includes all dedicated team member, support, logistics, administration and management staff
- (6) Work compound includes container offices, stores containers, furniture, and IT equipment
- (7) Overhead
- (8) Insurance
- (9) Profit
- (10) Contingency

Key assumptions of InfraAsia for the cost estimation for the replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section) are as follows:

- InfraAsia estimates quantity of PU Foam from based on the quantity of PU Foam used in the previous grout plug replacement and omega joint maintenance.

- Tools require for the replacement of grout plugs and expansion rubbers under Transaction 2 are relatively basic tools such as battery drill, simple hand tools, torches, inspection lamps, and cleaning materials.
- The replacement of grout plugs and expansion rubbers as well as the omega joint maintenance must be conducted in the limited non-traffic night time window, which is considered a short period of time. Therefore, the replacement works are expected to complete within 2 years after the mobilization period of 3 months.
- The total head count including all works teams and support staff is estimated at 133.
- Staff costs: Pay rates are allocated for each level of staff based on Thailand industry standard, taking into consideration the night shift works. As this is a relatively short-term contract, pay rates are assumed at a fixed rate for the duration of the contract.
- Overhead, insurance premium, and profit are assumed at 10%, 2%, and 10% of Items (1) – (6), respectively. InfraAsia has estimated such costs based on historical maintenance cost of BEM.
- Contingency: InfraAsia estimates the contingency of 6% of total material and labor costs. Contingency sum has been included to allow for potential circumstances such as higher use of PU Foam and unexpected work delays. Additionally, there is the risk arising that the maintenance works may disrupt the operation of the MRT Blue Line Project. InfraAsia estimates the higher contingency rate than those of general maintenance works due to exceptional circumstances in respect of tunnel adjacent substrate conditions, such as water leaks during the replacement of grout plugs and expansion rubbers causing more time on the shift to rectify resulting in late return of the track and thus delay of the train services, and higher use of PU Foam than expected.
- Most equipment and material used are locally sourced. Thus, foreign exchange risk is limited.
- All costs are based on a cost reference as of February 1, 2023. The cost estimation is based on historical data of the MRT Blue Line Project, engineering judgement of InfraAsia, and current equipment and labor costs.
- Inflation rate is assumed at 3% per annum.
- VAT is not applied to the model.

Cost estimation for the replacement of grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section) is summarized as follows:

(Unit: Baht million)

	Replacement of Grout Plugs and Expansion Rubbers of the Tunnel Wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section)	Cost Estimation by InfraAsia	Consideration to be paid to CK
		2 years and 3 months (2 years of maintenance period and 3 months of mobilization period)	
1	Equipment	13.59	
2	Materials	175.67	
3	Transportation	10.12	
4	Electricity (Tunnel lightings and equipment)	2.03	
5	Manpower	180.22	
6	Work compound stores & offices	3.11	
	Sub-total 1 - 6	384.72	
7	Overhead and insurance premium ^{1/}	46.17	
8	Profit ^{2/}	38.47	
9	Contingency ^{3/}	23.47	
	Total maintenance cost of civil works	492.83	480.00^{4/}

Remark: Estimated based on InfraAsia's database, equipment prices from suppliers, and information derived from BEM.

1/ Comprising of overhead and insurance premium, accounting for approximately 12% of total material and labor costs (Sub-total 1 - 6 from the above table), divided to (a) overhead of approximately 10% of total material and labor costs and (b) insurance premium of approximately 2.0% of total material and labor costs.

2/ Profit is estimated at 10% of total material and labor costs (Sub-total 1 - 6 from the above table), which is in line with the industry standard.

3/ Contingency is estimated at 6% of total material and labor costs (Sub-total 1 - 6 from the above table).

4/ Consideration for the engagement of CK is on the lump sum basis (no detailed value of each task).

The Independent Financial Advisor views that the assumptions applied to the cost estimation by InfraAsia are appropriate and reflect current prices of spare parts and equipment and current wages and employment environment of Thailand railway industry. Besides, the Independent Financial Advisor checked with other railway operators and found that the CEM contractors would estimate cost relating to the maintenance service, profit, effect from delay of handover work, effect from delay of payment,

and contingency at approximately 20% - 30% of total material and labor costs. In this case, InfraAsia estimates total overhead, insurance premium, contingency, profit, and other expenses at approximately 28% of total material and labor costs (derived from 12% + 10% + 6% from the above table), which is in range of estimation of other maintenance contractors and the industry standard.

Conclusively, the Independent Financial Advisor is of the opinion that the appropriate approach to determine fair value of the transaction is the comparison with the cost estimation by InfraAsia, which is equal to Baht 492.83 million (VAT exclusive) since InfraAsia is an independent expert with knowledge and experience in determining value of the CEM works of various rail projects and it is the appraisal of CEM works of the MRT Blue Line Project in accordance with the scope of work of the Company.

When comparing the proposed consideration to be paid to CK for the replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section) (Baht 480.00 million (VAT exclusive)) and the estimated costs for the CEM service prepared by InfraAsia (Baht 492.83 million (VAT exclusive)), the consideration to be paid to CK is lower than the estimated costs (by InfraAsia) by Baht 12.83 million, or lower by 2.60% of the estimated costs by InfraAsia. Thus, **the consideration to be paid to CK for Transaction 2 is appropriate.**

3. **Summary of the Opinion of the Independent Financial Advisor Concerning the Appropriateness of Price and Conditions of the Connected Transaction**

The comparison of the value of the consideration to be paid to CK and the estimated costs by InfraAsia, the Independent Expert, can be summarized as follows:

(Unit: Baht million)

Transaction	Consideration to be Paid to CK	Estimated Costs by InfraAsia	Higher (Lower) than Estimated Costs	
			Baht million	%
	(1)	(2)	(3)=(1)-(2)	(3)/(2)
Transaction 1: The extension of the CEM Contract for the MRT Purple Line Project (Khlong Bang Phai Station – Tao Poon Station Section) for a period of 10 years	1,150.00	1,208.92	(58.92)	(4.87)
Transaction 2: Replacement of the grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section)	480.00	492.83	(12.83)	(2.60)
Total Transaction 1 and Transaction 2	1,630.00	1,701.75	(71.75)	(4.22)

Remark: VAT exclusive

The Independent Financial Advisor is of the opinion that the comparison between the consideration to be paid to CK and cost estimation of the Independent Expert in railways systems is the most appropriate approach as InfraAsia has knowledge and experience in cost estimation for many railway projects.

The Independent Financial Advisor views that the assumptions applied to the cost estimation by InfraAsia are appropriate and reflect current price of equipment and current wage and employment in Thailand railway industry. Besides, in determining the cost of CEM services of the MRT Purple Line Project and the replacement of grout plugs and expansion rubbers of the tunnel wall of the MRT Blue Line Project (Bang Sue Station – Hua Lamphong Station Section), InfraAsia took into consideration the scope of work, list of spare parts and equipment for each work, as well as specific system characteristics of each project such as station type (elevated or underground), size of the station, number of station, and relative complexity and quantity of equipment per station. Then, InfraAsia prepared cost estimate by applying the Spreadsheet Cost Model, developed by InfraAsia, which has been used and accepted by numerous government agencies, railway operators, and main contractors.

Moreover, the Independent Financial Advisor checked with other railway operators and found that most of the CEM contractor would estimate the total cost relating to maintenance works, profit, effect from delay of handover work, effect from delay of payment, and contingency, at approximately 20% - 30% of total material and labor costs. In this case, InfraAsia estimates total overhead, insurance premium, contingency, profit, and other expenses at 20% - 30%, which is line with other contractors and the industry standard.

In conclusion, the Independent Financial Advisor is of the opinion that:

- (1) The consideration to be paid to CK for Transaction 1 in an amount not exceeding Baht 1,150.00 million (VAT exclusive) is **appropriate** as it is lower than the estimated costs by the Independent Expert by Baht 58.92 million, or lower by 4.87% of the estimated costs by InfraAsia.
- (2) The consideration to be paid to CK for Transaction 2 in an amount not exceeding Baht 480.00 million (VAT exclusive) is **appropriate** as it is lower than the estimated costs by the Independent Expert by Baht 12.83 million, or lower by 2.60% of the estimated costs by InfraAsia.

Part 4: Summary of the Opinion of the Independent Financial Advisor

Please refer to the opinion of the Independent Financial Advisor in **Executive Summary** on page 6 of this report.

However, shareholders should carefully study all documents and information attached to the notice to this shareholders' meeting, for the sake of their own decision making. Decision whether to approve the connected transaction rests primarily and is the sole discretion of the shareholders.

CapAd, as the Independent Financial Advisor, hereby certifies that it has provided the above opinion cautiously in accordance with professional standard for the benefit of the shareholders.

Sincerely Yours,

The Independent Financial Advisor
Capital Advantage Company Limited

-Patchara Netsuwan-

(Mr. Patchara Netsuwan)
Executive Director

-Patchara Netsuwan-

(Mr. Patchara Netsuwan)
Supervisor

Attachment

Information and Credentials of Infra Asia (Thailand) Ltd., an Independent Expert

Infra Asia (Thailand) Company Limited is a company under Infra Asia Group, with offices in Hong Kong and Thailand, (collectively called "InfraAsia"). It has a team with extensive experience in Cost Estimation for rail projects and is widely-accepted by numerous government agencies and corporates in Thailand and overseas. By InfraAsia provide a comprehensive range of engineering, project management, technical services covering all railway core systems and infrastructure in various countries in Asia including new project and upgrade the existing system to the client including government, operator, and contractors. The scope of service is as follows:

- Support of railway core systems, covering planning, design, implementation, test and commissioning, system assurance
- System integration by planning, managing, and integrating all systems and communication
- Signaling and train control systems
- Communications systems
- Automatic fare collection
- Platform screen doors
- Traction and building / auxiliaries power supply
- Rolling stock maintenance depot
- Cost estimation and budgetary advisory services

InfraAsia has extensive experience in cost estimation for complex rail projects and are widely accepted by numerous government agencies and corporates in Thailand and overseas. InfraAsia has experience in cost estimation of the projects for an aggregate consideration of more than USD 21 billion and has experience in operating expense estimation for an aggregate value of over USD 6 billion.

InfraAsia's works in Thailand

- 1) Cost estimation for the procurement and installation of Mechanical and Electrical (M&E) Systems of the MRT Orange Line Project for BEM, October 2022
- 2) Systems Assurance support on the Airport Rail Link Rolling Stock and Signalling Recondition contracts including preparation of the respective Verification and Validation reports
- 3) Technical and engineering consultancy services for the railway systems and operations preparation on the Bangkok Pink and Yellow Line monorail projects
- 4) Update of the operating expense estimation for the BTS Green Line: Mo Chit - On Nut and National Stadium - Saphan Taksin for BTS Rail Mass Transit Growth Infrastructure Fund (BTSGIF) in 2014, 2016, 2017, 2020, 2021, and 2022
- 5) Technical and engineering management consultant for the construction of Saint Louis Station (S4) of the BTS Green Line Project and the integration with the existing system of BTS network
- 6) Technical and engineering consultancy service for the BTS Green Line: Bearing - Samut Prakarn Section and Mo Chit - Khu Khot Section and integration with the existing system of BTS network
- 7) Consultant of the State Railway of Thailand (SRT) for the cost estimation Thailand Double Track: Nakhon Ratchasima Section (revising design from ground level to elevated structure)
- 8) Preparation of cost estimation (as part of the feasibility study) and preliminary design of the Chumphon to Ranong Deep Seaport for Thailand Office of Transport Planning (OTP) and State Railway of Thailand (SRT)
- 9) Cost estimation for the procurement and installation of the M&E systems of the MRT Blue Line Extension Project (Hua Lamphong - Lak Song Section and Tao Poon - Tha Phra Section) for BEM
- 10) Cost estimation for the procurement and installation of the M&E systems of the MRT Purple Line Project for BEM
- 11) Cost estimation for maintenance of civil & architecture and M&E systems for the MRT Blue Line Extension Project, and the preparation and maintenance during the trial run and mobilization period for BEM
- 12) Cost estimation for the Extension of the Agreement for the Maintenance of Civil & Architecture and Electrical & Mechanical Systems for the MRT Chaloem Ratchamongkhon Line (the MRT Initial Blue Line) (Bang Sue - Hua Lamphong) for BEM
- 13) Cost estimation for the improvement and replacement of the expired equipment in the M&E systems for the MRT Initial Blue Line Project for BEM

- 14) The procurement and installation of equipment to upgrade communication system of the MRT Blue Line Project for BEM
- 15) The estimation of operation expenses for BTS Green Line (Mo Chit - On Nut and National Stadium - Saphan Taksin) to support BTS Rail Mass Transit Growth Infrastructure Fund (BTSGIF) Offering in 2013
- 16) Advisor for the MRTA for the bidding for the MRT Purple Line Project
- 17) Technical advisor and conduct a feasibility study for the relocation of 3 depots from SRT Makkasan to Amphur Khang Khoi, the Double Tracking Phase 4 and 5 Railway Project, the SRT Red Line Project, and Erawan Line Extension Project (Airport Rail Link) for Thailand State Railway (SRT)

InfraAsia's overseas works

- 1) Review and advice to Japanese Corporation on the cost estimation and technical compliance for the bidding for the depot workshop facilities and equipment for the Jakarta Metro project
- 2) Independent review, commentary, and advice in respect of Ho Chi Minh Line 2 Metro Project as a part of the project management consultant group to Management Authority for Urban Railways (MAUR) of the government of Vietnam
- 3) Preparation of cost estimation for Gold Coast LRT in Australia as part of the due diligence review of bidding consortiums rails systems on behalf of lending banks
- 4) Independent appraiser for Asian Development Bank (ADB) on the review of the project budget for the Indian Pune-BGVN-WADI-GR Double Tracking / Electrification Project
- 5) Cost estimation for communication system package for Bangalore Line 1 Tender Bid S&T

Source: InfraAsia and <https://infraasia.com/>