

BANGKOK EXPRESSWAY AND METRO

**Bangkok Expressway and Metro Public Company Limited** 

VY) VA) มหุง... สุชาพเมืองที่จังจัน Extend Happiness to Sustainable Society



# Content

0	P
2	Message from Managing Directors
4	Operational Results of BEM
5	Awards of Pride
6	Corporate Governance
	About BEM
	Organization Structure
	Vision, Mission and Goals of Sustainability
	Materiality Assessment for Business Operations
	Stakeholder Engagement
	Sustainability Development Strategy
	Good Corporate Governance
	Anti-Corruption
	Risk Management
31	Economy
	Supply Chain Management
	Responsibilities for Goods and Services
	Customer Relations Management
12	Society
	Human Resource Management
	Human Rights
	Labor Practices
	Participation in Community and Social Development
50	Environmental Management
58	Innovation
73	About this Report
74	Global Reporting Initiative Standard (GRI Standard)





# Message from Managing Directors



... BEM to communicate its determined intents with the society and stakeholders of all groups to ensure that they have been awared of its business operations in line with the vision. To become a leading, fully-integrated transportation service provider in Thailand and ASEAN on the path of sustainability with corporate social and environmental responsibility and regards for stakeholders of all groups ...

Many countries worldwide, including Thailand, currently give priority to sustainable development since it serves as a business operational guideline which pays regard for stakeholders of all groups, it will definitely gain acceptance and participation which will attain sustainability for the business, society, country, and for this world where we all are living in.

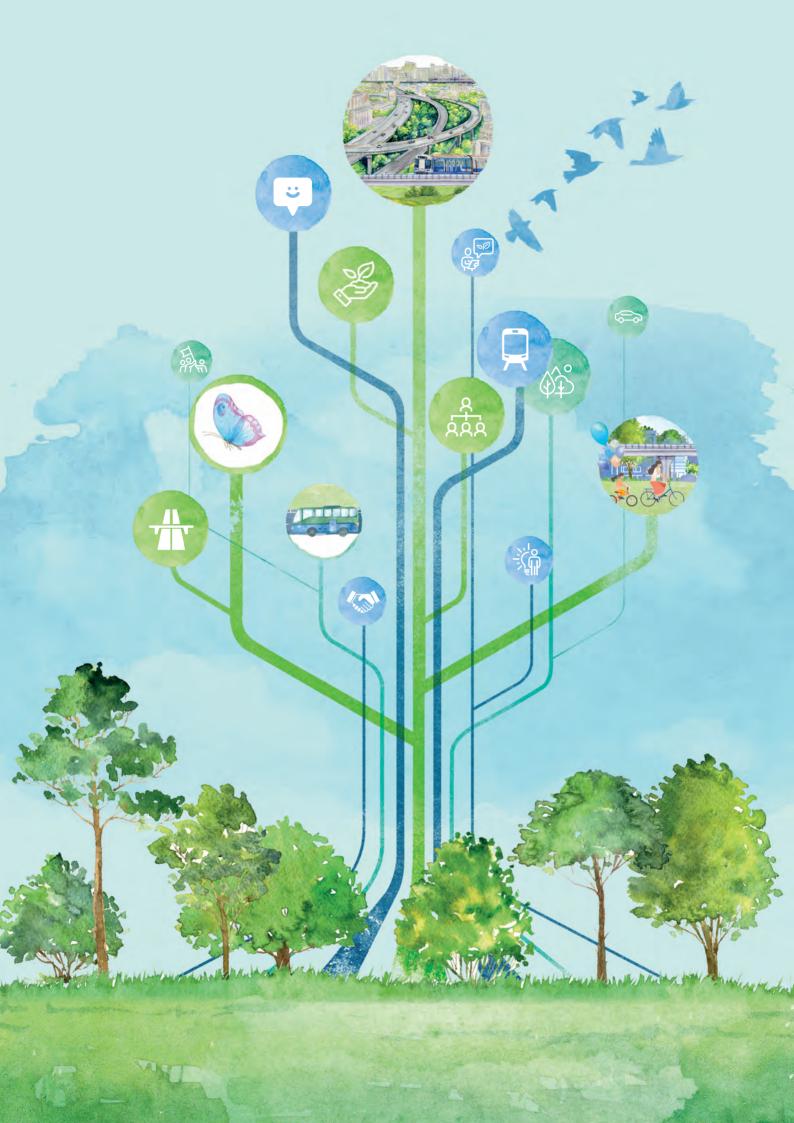
Bangkok Expressway and Metro Public Company Limited or BEM formulates a clear policy which prioritizes and realizes rights of stakeholders of all groups, whether internal stakeholders, namely, executives, staff of the Company and its subsidiaries, including shareholders, or external stakeholders, namely, customers, business counterparts, lenders, traders, competitors, society, communities, schools nearby the right of way of the expressways and metro routes, together with the government sector and other relevant authorities, as well as being committed to playing a part in environment conservation by means of relentless improvement of services in all aspects.

2018 remarked another year of opportunities and challenges for BEM due to the government sector's policy to allow the private sector to jointly invest in infrastructure of the transport system. BEM, as one of the country's service providers of the expressway and metro systems, has its commitment to safety standards, convenience and rapidity as well as continuously developing works to ensure efficiency in order to uplift the quality of life of the people, and with its experience and expertise, the transport network being operated by BEM has then met international standards. As a result, BEM has been provided opportunities to participate in the government sector in expanding the infrastructure network of the transport system, both roads and tracks.

Based on the aforementioned commitment and determined efforts, BEM has been then selected to be listed in Thailand Sustainability Investment 2018 (THSI) for the second consecutive year and BEM securities have also been in SET THSI Index 2018 by the Stock Exchange of Thailand. Furthermore, BEM received the Drive Award 2018 for Finance Excellence from the excellent financial management, together with management based on corporate governance, by considering corporate social and environmental responsibility projects along with innovations ready to drive the organization into the macro-economy, from Chulalongkorn University.

This Sustainable Development Report is intended by BEM to communicate its determined intents with the society and stakeholders of all groups to ensure that they have been aware of its business operations in line with the vision to become a leading, fully-integrated transportation service provider in Thailand and ASEAN on the path of sustainability with corporate social and environmental responsibility and regards for stakeholders of all groups by adherence to the code of ethics and code of conduct in the business operations. Moreover, BEM will determine to continuously carry out development.

Dr. Sombat Kitjalaksana Managing Director Mrs. Payao Marittanaporn
Managing Director



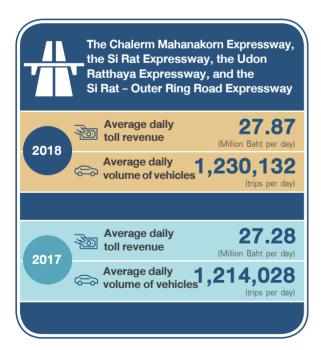


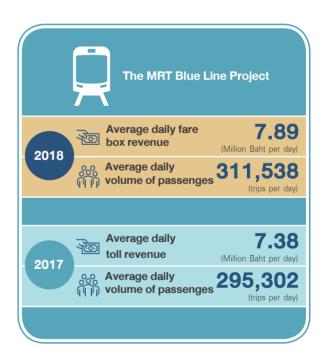
# Operational Results of BEM

For the year ended 31 December

Unit: Million Baht

		2018	2017
	Revenue from expressway business	10,174	9,957
	Revenue from rail business	4,736	4,521
Ť	Revenue from commercial development business	705	675
<b>B B</b>	Total revenues	19,087	15,393
	Gross profit	5,840	5,947
*	Net profit attributable to equity holders of the Company	5,317	3,123





- The Company received the Drug Free Workplace Certificate from the Department of Labor Protection and Welfare as a result of the Company's "Drug Management System in the Business Premises Ranking No. 1".
- The Company has taken care of its staff which are regarded as valuable resources in terms of the quality of life and work safety. In 2018, there was no death of staff at work.
- In respect of energy preservation, the Company is able to efficiently reduce consumption of energy. In 2018, the Company was able to reduce consumption of electricity by 4,185,760 kWh, accounting for 3.85 percent.



### Awards of Pride



• The Company received the Drive Award 2018 for Finance Excellence from the excellent financial management, together with management based on corporate governance, by considering corporate social and environmental responsibility projects along with innovations ready to drive the organization into the macro-economy, from MBA Chula Alumni, in collaboration with the Master of Business Administration Program and the Faculty of Commerce and Accountancy, Chulalongkorn University. It was regarded as an award guaranteeing the Company's determined and committed efforts in excellent management and corporate governance.



 BEM securities were selected to be in SET THSI Index 2018 and Thailand Sustainability Investment 2018 (THSI) by the Stock Exchange of Thailand, as the award given to honor the listed company with the commitment to the sustainable business operations in environmental, social and corporate governance aspects as well as serving as role model for other listed companies.



• The Company received a credit rating at "A", with "Stable" outlook from TRIS Rating Co., Ltd. (TRIS Rating).



 The Company received an "Excellent" rating with 92 scores in the assessment of the quality of the 2018 Annual Ordinary General Meeting of Shareholders (AGM Checklist) from the Thai Investors Association.



The Company received a "Very Good" rating from Corporate Governance Report
of Thai Listed Companies 2018 published by the Thai Institute of Directors
Association (IOD).



# Corporate Governance

### About BEM

Bangkok Expressway and Metro Public Company Limited or BEM is a leading transportation service provider, consisting of expressway and metro system services, including commercial development related to the expressway and metro systems. With its commitment to management based on corporate governance and corporate social and environmental responsibility, the Company has been then trusted by the government sector in implementing large-scale transportation projects to uplift the quality of urban life and make expansion to the surrounding provinces as well as to the Asian region in the future.

The Company has executed the Concession Agreements with the Expressway Authority of Thailand or EXAT for construction and operation of the expressways, comprising the Si Rat Expressway (Sectors A, B, C), the Si Rat Expressway (Sector D), and the Si Rat - Outer Ring Road Expressway, including one of its subsidiaries, i.e., Northern Bangkok Expressway Company Limited or NECL, which has executed the Concession Agreement with EXAT for construction and operation of the Udon Ratthaya Expressway.

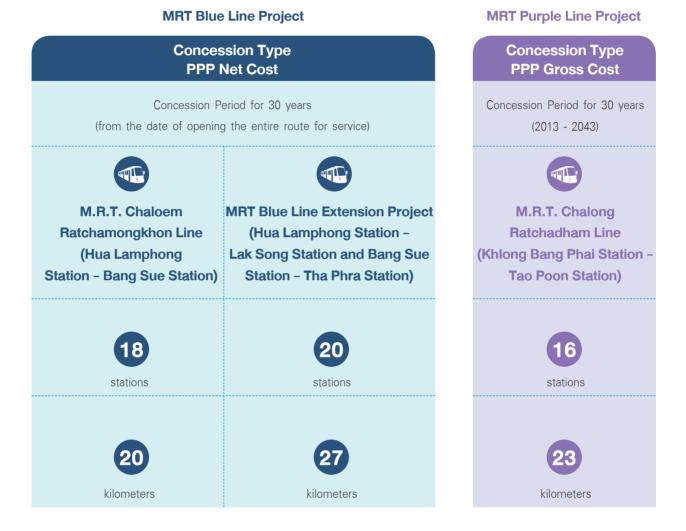
#### **Urban Network**

Expressway	Length (km.)	Opening Date	Constructed and Operated by	Revenue	Revenue Sharing Company : EXAT
Chalerm Mahanakorn Din Daeng - Port Bang Na - Port Port - Dao Khanong	8.9 7.9 10.3	January 4, 1981 January 17, 1983 August 8, 1987	EXAT	Company and EXAT	<ul> <li>60:40 for the first nine years</li> <li>50:50 for the period between for the first nine years and the last nine years</li> <li>40:60 for the last nine years</li> </ul>
Si Rat Sector A:					
Rama 9 - Ratchadapisek Sector B:	12.4	September 2, 1993	Company	Company and	• 60:40 for the first nine years
Phayathai - Bangkhlo	9.4	October 6, 1996		EXAT	<ul> <li>50:50 for the period between for the first nine years and the last nine years</li> <li>40:60 for the last nine years</li> </ul>

#### **Suburban Network**

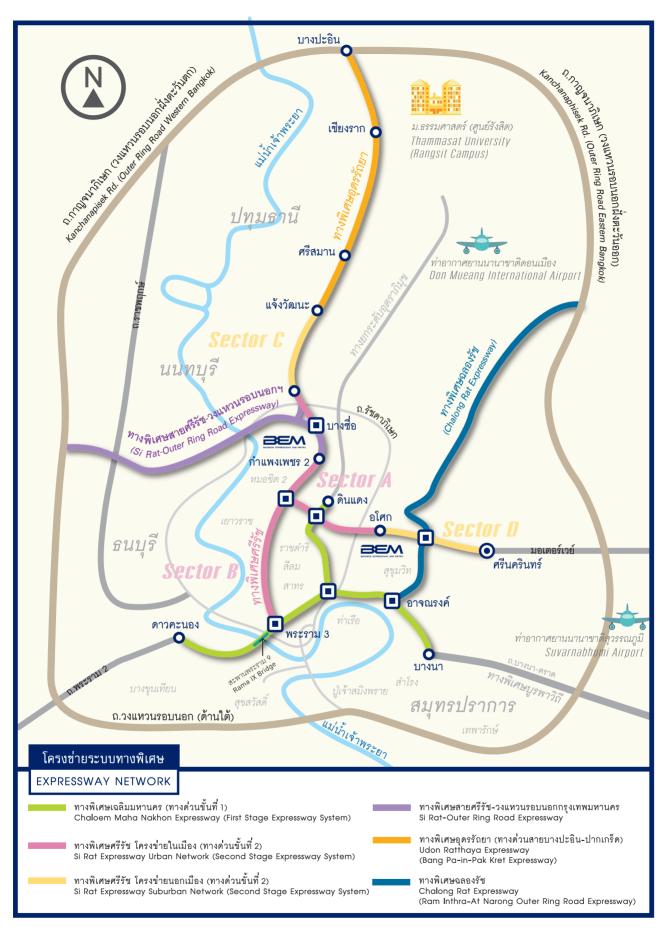
Expressway	Length (km.)	Opening Date	Constructed and Operated by	Revenue	Revenue Sharing Company : EXAT
ศรีรัช Sector C: Ratchadapisek -					
Chaeng Watthana Sector D:	8.0	September 2, 1993	Company	Company	• 100 : 0
Rama 9 - Srinagarindra	8.7	Section 1: December 2, 1998 Section 2: March 1, 2000	Company	Company	• 100 : 0
Si Rat - Outer Ring Road	17.0	August 22, 2016	Company	Company	• 100 : 0
Udon Ratthaya Chaeng Watthana - Chiang Rak Chiang Rak - Bang Sai	22.0 10.0	December 2, 1998 November 1, 1999	NECL	NECL	• 100 : 0

Furthermore, the Company has been given the opportunities to execute the Concession Agreements with the Mass Rapid Transit Authority of Thailand (MRTA) for provision of the mass rapid transit service for two projects, namely, the MRT Blue Line Project, comprising the M.R.T. Chaloem Ratchamongkhon Line Project (Hua Lamphong - Bang Sue Section), the MRT Blue Line Extension Project (Hua Lamphong - Lak Song Section and Bang Sue - Tha Phra Section), and the M.R.T. Chalong Ratchadham Line Project or the MRT Purple Line Project, Bang Yai - Bang Sue Section (Khlong Bang Phai Station - Tao Poon Station).



In respect of commercial development business, the Company and one of its subsidiaries (NECL) have conducted commercial development in relation to the expressway system, by allowing private entities and individuals to use spaces for commercial operation in the expressway areas for installation of Intelligent Traffic Signs and advertising boards of various forms, as well as using spaces for retail shops around toll plazas and other business activities, such as, the use of the expressway areas for installation of 3G signal boosters, etc. This includes commercial development in the MRT Blue Line Project, the Company has operated and entitled one of its subsidiaries, namely, Bangkok Metro Networks Limited or BMN, to serve as its management representative for commercial development of such project.

As for investment in other companies, the Company has invested in companies which have engaged in infrastructure business as follows: 1) CK Power Public Company Limited or CKP which operates the key business by holding shares in other companies (Holding Company) operating energy business; 2) TTW Public Company Limited or TTW which produces and distributes tap water to the Provincial Waterworks Authority, and investment in companies which have engaged in other infrastructure business.

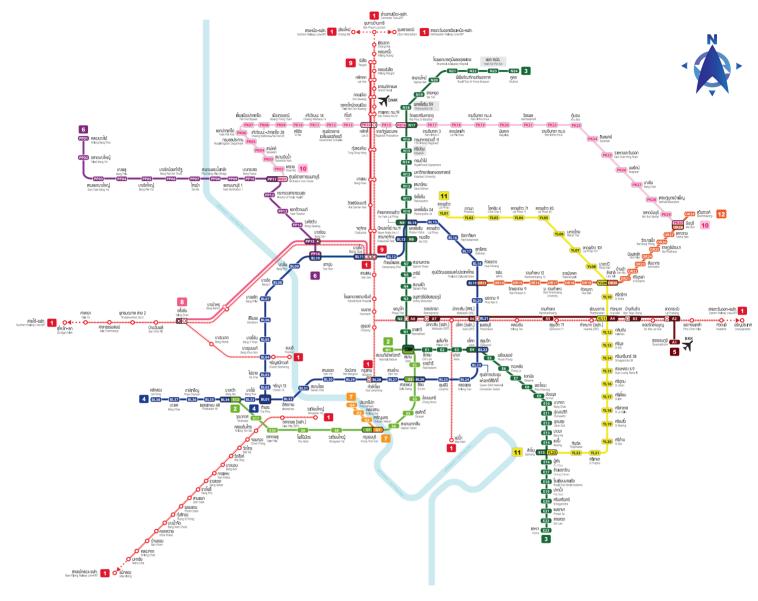




Scan for viewing the expressway network map in detail

### โครงข่ายรถไฟฟ้าและรถไฟชานเมือง

**Mass Rapid Transit & Commuter Train Network** 

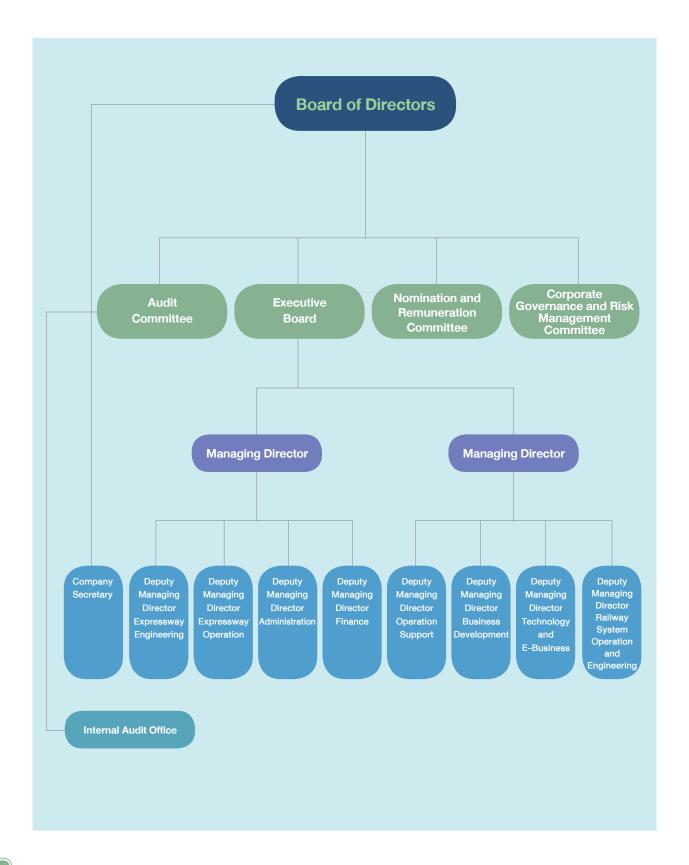


Four underground stations of the MRT Blue Line Extension Project, each of station is showcasing the cultural splendours.

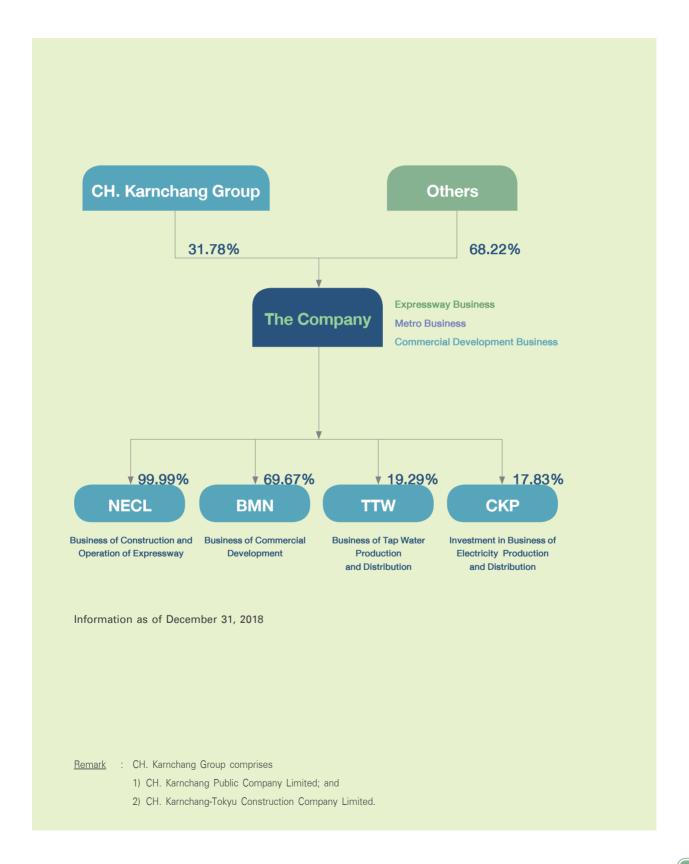




# Management Structure



# Shareholding Structure and Shareholding Percentage of Company Group





#### **Head Office**

No. 587 Sutthisarn Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok 10400

#### **Branch Office 1 (Expressway Business)**

No. 238/7 Asoke-Dindaeng Road, Bangkapi Subdistrict, Huai Khwang District, Bangkok 10310 Telephone (66) 2641 4611 Facsimile (66) 2641 4610

#### **Branch Office 2 (Metro Business)**

No. 189 Rama IX Road, Huai Khwang Subdistrict, Huai Khwang District, Bangkok 10310 Telephone (66) 2354 2000 Facsimile (66) 2354 2020





#### Bangkok Expressway and Metro Public Company Limited

Securities Symbol: : BEM

Company Registration No. : 0107558000491

**Business Operation:** : Construction and management of the expressways and the rail mass rapid transit

system projects, including other related businesses

SET-Listed Date : December 30, 2015

Registered and Paid-up Capital : Baht 15,285,000,000

(as of December 31, 2018)

**Total Ordinary Shares** : 15,285,000,000 shares at par value of One Baht each

Website : www.bemplc.co.th

Investor Relations Contact: : Telephone (66) 2641 4611 ext. 6200, 6220 and 6221

Facsimile (66) 2641 4610



### Vision

The Company's vision is to become a leading, fully-integrated transportation service provider in Thailand and ASEAN.

### Mission

The Company is committed to:

Providing services of the expressway and metro systems with safety, convenience, rapidity, reliability, punctuality and efficiency, in order to improve the quality of people's life.

Improving the quality and efficiency of the modern and full service transportation network in order to alleviate traffic problems, preserve the environment, and improve society and the countr.

Creating value added and utmost benefit to shareholders based on fairness to all stakeholders.

# Sustainability Development Goals

Developing personnel to ensure that they have knowledge and understanding of sustainability to be the starting point for the path to happiness for all.

### Materiality Assessment for Business Operations

The Company has set out material issues in the business operations which cover the Company's businesses, i.e., expressway and metro system services. The process is conducted as follows:



- 1. Considering factors which impact the Company:
  - Internal factors, consisting of strategic plans, business operational direction of the Company, risk factors of the Company;
  - External factors, consisting of key issues of the transportation industry, global sustainable development goal indicators, expectations from stakeholders of all groups.



2. **Prioritizing:** by putting these issues in order of importance which affect the Company's business operations and which are expected among stakeholders of all groups.



**3. Reviewing:** by proposing that the Management Team provide opinion and review importance of each issue for consideration and approval.

Based on the foregoing process, the Company is able to identify a total of six material issues which affect the Company's business operations, as follows:



### Participation with Communities

The Company has a clear policy which focuses on and realizes rights of stakeholders by engaging in the business with its commitment to social and environmental responsibility, as well as attainting value added creation and optimum benefits for stakeholders of all groups with fairness and sustainability. The Company has classified groups of stakeholders into inside stakeholders and outside stakeholders. In the corporate governance policy, the Board of Directors has also laid down that the Company shall treat stakeholders based on their rights as specified by applicable laws and focus on its operations with respect for human rights on a continuous basis.

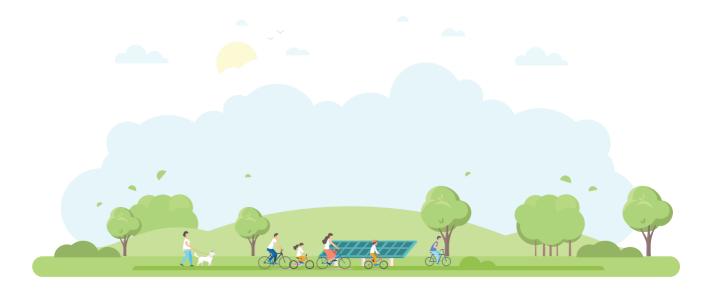






	Communication			
Stakeholder Group	Channel	Frequency	Expectation/Concern	Response
Executives and Staff	<ul> <li>Internal electronic communication system</li> <li>Public address system</li> <li>Welfare Committee and Management meeting</li> <li>Internal newsletter</li> <li>Social media</li> <li>Big Cleaning Day / Quality Day</li> <li>Knowledge Management Project</li> <li>Kaizen suggestion</li> <li>Work Process Improvement Activity</li> <li>Executive and Staff-Level Competency Development training</li> <li>Communication via channels</li> <li>Acceptance of complaints and comments of staff</li> <li>Annual Evaluation</li> </ul>	Continuous all the year round	Determination of remuneration and other benefits with fairness Provision of welfare not less than or more than that specified by law as appropriate Provision of occupational safety and health care Provision of training to educate, develop competency and support advancement Provision of opportunities to develop important and necessary skills relevant to works or other aspects	<ul> <li>Determining fair remuneration structure</li> <li>Providing appropriate welfare more than that specified by law</li> <li>Creating participatory atmosphere at workplace</li> </ul>
Shareholders	<ul> <li>Annual Ordinary General Meeting of Shareholders</li> <li>Annual Report</li> <li>Quarterly Operational Results Reporting</li> <li>Opportunity Day</li> <li>Information Disclosure via the Company's website</li> </ul>	<ul> <li>Once a year</li> <li>One copy a year</li> <li>Four times a year</li> <li>From time to time</li> <li>Continuous all the year round</li> </ul>	Capital Gain Satisfying and regular dividend payment Good operational results Continued projects in the future	<ul> <li>Transparent, fair and auditable corporate governance</li> <li>Appropriate dividend payment to shareholders</li> <li>Availability of many communication channels for shareholders to follow up and have access to information</li> <li>Up-to-date and complete investor information available on the website</li> <li>Availability of Investor Relations Unit to provide correct information and build relationships with investors</li> </ul>

Stakeholder Group	Communication Channel	Frequency	Expectation/Concern	Response
Customers	<ul> <li>Satisfaction, requirement and suggestion survey in service provision</li> <li>Customer Relationship Strengthening activity</li> <li>Whistleblowing Channels</li> <li>Company Visit</li> </ul>	<ul> <li>Once a year</li> <li>At least twice a year</li> <li>Continuous all the year round</li> <li>From time to time</li> </ul>	Quality, convenient, rapid and safe services along the routes	<ul> <li>Provision of quality, safe and standard services to fulfill the expectations of the service users</li> <li>Accurate, rapid Response without discrimination, with correct information</li> <li>Welcoming the service users' visits to the Company</li> </ul>
Business Counterparts	Case Conference with the Company Communication with the government officials to ensure mutual understanding Continued participation in activities and projects of the government sector Performance Satisfaction Assessment	<ul> <li>Monthly</li> <li>Continuous all the year round</li> <li>Continuous all the year round</li> <li>Monthly</li> </ul>	Performance of duties under the agreements with the government sector, EXAT, and MRTA, as the contractual parties, in a strict and fair manner towards related persons with justice and non-discrimination	Determining practical guidelines in the Code of Conduct of the Company



Stakeholder Group	Communication Channel	Frequency	Expectation/Concern	Response
Traders/ Contractors	Assessment of Performance Quality and Satisfaction     Communication via the Company's website, Procurement menu     Production process visit	From time to time     Continuous all the year round      From time to time	Ensuring equitable procurement process     Ensuring fair treatment towards all traders and following the procedures in a systematic way in compliance with conditions of contracts or agreements with fairness	<ul> <li>Determining the criteria for selection of trade counterparts</li> <li>Ensuring equal and fair competition</li> <li>Preparing contracts in appropriate and fair forms</li> <li>Arranging for management, monitoring, surveillance, including rechecking systems to ensure the full compliance with contracts or agreements</li> <li>Ensuring the internal control system to prevent fraud and misconduct in all steps of procedures</li> <li>Paying consideration to traders on time in accordance with terms as mutually agreed</li> <li>Not allowing directors / executives and staff to solicit or receive any benefit from traders</li> <li>Evaluating traders on a yearly basis and informing them of the results of the evaluation with suggestions</li> </ul>
Lenders / Debenture Holders	Debenture holders' meeting     Information disclosure via the Company's communication channels     Company Visit	From time to time     Continuous all the year round     From time to time	Strictly and completely complying with conditions of the credit facilities agreements, suretyship agreements, capital management	Strictly and completely complying with the conditions of the credit facilities agreements as mutually agreed Reporting correct, complete and reliable financial information Disclosing information on corruption (if any) to the lenders to jointly resolve such problems with fairness and rapidity

Stakeholder Group	Communication Channel	Frequency	Expectation/Concern	Response
Supply Chain	<ul> <li>The monitoring subcommittee for the ISO 9001 and 14001 standard systems</li> <li>Operation audit in compliance with the ISO 9001 and 14001 standards by Surveillance Auditor</li> </ul>	<ul><li>Twice a year</li><li>Once and twice a year</li></ul>	Dealing with the supply chain in compliance with international standards	Strictly complying with the ISO 9001 Quality Management System and the ISO 14001 Environment Management System
Society, Communities, Schools nearby the right of way of the expressways and metro routes	<ul> <li>Public consultation meeting</li> <li>CSR activity</li> <li>Evaluation for each activity</li> <li>Community Visit</li> <li>Whistleblowing reports</li> <li>Construction of community contribution projects, in association with the government sector</li> </ul>	<ul> <li>From time to time</li> <li>At least 12 times a year</li> <li>Every activities</li> <li>From time to time</li> <li>Continuous all the year round</li> <li>From time to time</li> </ul>	Operating the business with safety and taking into account social and environmental impacts     Rapid communication if an emergency situation arises	<ul> <li>Supporting CSR activities</li> <li>Raising awareness among staff of volunteering spirit for working beneficial to society and communities</li> <li>Structuring communities in terms of education, environment, quality of life, sports and public interest</li> </ul>
Competitors	<ul> <li>Following up the operational results in the same industry market</li> <li>Monitoring marketing news and activities</li> <li>Provision of marketing information without impacting competitors</li> </ul>	<ul> <li>Continuous all the year round</li> <li>Continuous all the year round</li> <li>Every time</li> </ul>	Business operations     with transparency     based on fair trading     and competition	Provision of marketing information without impacting competitors, and business operations with transparency

# Sustainability Development Strategies



The Company is determined to be a leading, fully-integrated transportation service provider in Thailand and ASEAN, with its social mission to provide the transport service with convenience, rapidity, and safety by engaging in the business with its commitment to social and environmental responsibility, attainment of value added creation and optimum benefits for all stakeholders with fairness and sustainability, and, to enable the Company to create the "Path to Happiness for Better Travelling Mode",. The Company then realizes the significance of personnel development to ensure that they have preparedness and capability to not only create value for the Company, but also value for the society as a whole.

Nowadays, the convenient and efficient transportation systems are essential for an urban lifestyle, whether it be road or rail systems, all of which play a key role in integrating livelihoods of the people in the society from one place to another place. For that reason, the Company as the expressway and metro service provider, with its commitment to being one vital component in development of the related transportation systems, is thus determined to establish a connection of the fully-integrated transportation system to facilitate the people's travelling and help mitigate traffic problems in Bangkok and its surrounding provinces. This is to upgrade the quality of life of the people by giving priority to provision of safe and efficient services, giving the greatest satisfaction to the service users of the expressway and metro systems through the business operations based on the social and environmental responsibility, the guidelines to which the Company has always adhered for the sustainable business operations.

The Company firmly believes that qualified staff is a key factor in bringing the sustainable growth and success to the organization. Personnel are then regarded as a key feature in moving the business forward and as the "Source of Happiness Path". To ensure that the Company's personnel can provide the quality service, particularly in respect of safety, the Company has clearly laid down the practical quidelines for staff in the Code of Conduct.

The Company is committed to developing efficiency in performance of staff to attain quality of work and quality of life by fostering conceptions and values relating to quality policies, comprising personnel development, teamwork, creation of quality, working environment, and accountability of executives and staff, including formulation of clear policies on safety and hygiene along with ensuring environment and hygiene in the workplace with safety to life and property of personnel and the Company (Sphere of safety) with a commitment to fostering and creating awareness of occupational safety and health to its personnel and then to its business alliances, customers, together with nearby communities. In addition, the Company has integrated the social and environmental responsibility activities in processes related to safety, for that reason, the Company not only gives priority to the safety of the service users, but also to all persons throughout the value chain of the Company.

The Company also focuses on transparency and fairness in its operations with the aim of coordinating benefits and growing together with all groups of stakeholders in an appropriate manner. Therefore, the Company adopts and communicates its operating policy for sustainable development to all staff to ensure that they seriously implement and harmoniously incorporate it into their own work processes for sustainable growth of the Company and all its groups of stakeholders, as follows:



To be a leading organization for sustainable development through communication and exchange of best practices with all groups of the Company's stakeholders;



To build up the culture and concept of the sustainable development for incorporation into every work process and decision—making process of the Company;





To promote training, learning, and counselling, focusing on practices according to sustainable development guidelines;



To support the operations, disseminate the guidelines, and ensure collaboration at the regional level as well as transferring the body of knowledge to achieve sustainable development on a continuous basis.

### Corporate Governance

The Company realizes the significance of the good corporate governance and supports staff's moral and ethical awareness. The Board of Directors sets out the Company's code of business ethics as principles and goals of the Company's business operations, including guidelines for performance of all directors, executives, and staff. Directors, executives and staff will regularly receive their performance assessment in compliance with the Company's Code of business ethics every year.

The results of assessment of performance in compliance with the Company's Code of Business Ethics 2017 and 2018 indicate that "executives and staff are likely to completely comply with the code of business ethics". In this regard, the overall results of assessment of directors and executives' compliance with the Company's Code of business ethics can be summarized as follows:

#### 1. Compliance with the code of business ethics:

Understanding and adhering to the guidelines as specified in the Company's Code of business ethics.

#### 2. Guidelines for business operations:

Strictly complying with the laws applicable to the Company and the trading business under the desirable morality, including the Company's policies.

#### 3. Conflict of interests:

Not disclosing any confidential information of the Company to any third party; refraining from any act which will give rise to a conflict of interests between their own interest and the Company's interest; not involving in nor holding any share in any business which may have a conflict of interests with the Company.

#### 4. Insider trading:

Not disclosing any insider information which has not yet been disclosed to the public, which may affect the prices or trading of securities of the Company and its related companies.

#### 5. Commitments to shareholders:

Making an effort in best to create value added to the organization to ensure its capability to accommodate the business growth and expand its businesses with continuity and create value added to the shareholders in the long run.

#### 6. Treatment towards counterparts and business contractual parties:

Keeping counterparty's and contractual parties' information confidential for the purpose of fair and independent business operation; refraining from wrongful business operation between counterparts and contractual parties; refraining from offing any bribe to others or supplying them items in exchange for business benefits.

#### 7. Responsibilities for executives and staff:

Setting out guidelines and practices for taking care of the working environment to ensure safety for their life and properties at all times.

#### 8. Treatment towards business competitors:

Complying with the business policies in a fair manner by the rules and laws relating to trading competition.

#### 9. Commitments to communities, society, environment, and government sector:

Providing cooperation in making benefits for the communities, society, environment and government sector on an occasional and ready basis.

#### 10. Gambling, drinking alcohol and drugs:

Not possessing, purchasing-selling or drinking alcoholic beverages, drugs while being in the workplace or during doing businesses of the Company, except parties or other social gatherings held by the Company; and not playing or supporting all kinds of gambling activities during working times or in the area of the Company.

#### 11. Disclosure of information and confidentiality:

Complying with the policy to efficiently manage the Company's information; and disseminating necessary, correct and proper information to the public on an occasional basis; and not disclosing the Company's information which has not yet been disclosed to the public, including any personal information, nor using any information as known from performance of duties for their own interest.

#### 12. The Company's assets:

Setting out practices in taking care of the Company's assets to prevent them from loss, damage or misuse.

#### 13. Gifts and parties:

Setting out practices regarding giving of gifts and holding of parties by refraining from receiving any item or benefit from counterparts, contractual parties or persons who have connection with the Company's businesses, except during festival or according to custom, in which case, at the reasonable value as shall be considered by recipient;

#### 14. Safety and hygiene:

Strictly complying with the laws and regulations relating to safety and hygiene; and earnestly providing cooperation in preventing any accident, injury, and illness.

#### 15. Non-compliance with the code of ethics:

Realizing and complying with the code of ethics of the Company by not committing any violence which may be subject to punishments under applicable laws and disciplinary actions.

### Anti-Corruption

#### **Anti-Corruption Policy**

The Company realizes and gives priority to anti-corruption and fraud prevention, both inside and outside. The Company sets out guidelines for desirable practices of all directors, executives, and staff of the Company via the code of business ethics and the Company also takes into account damage which may occur from corruption. The Company thus formulates anti-corruption policy which has been disseminated via the Company's website www.bemplc.co.th.

Moreover, the Company sets out measures, based on both disciplinary and legal actions, against corruption. The fact-finding must be conducted by a committee comprising representatives from the Human Resources department, from the department of the offender and other units. The Managing Directors are authorized to consider imposing disciplinary actions in case of written warning and termination of employment. Should the misconduct constitute embezzlement, legal action will be undertaken to protect the Company's interests. Guidelines under this policy are as follows:



 No business dealings may be entered into with any organization or unit which is involved in corruption.



2. Disciplinary and legal actions will be imposed and instituted against such staff who are involved in corruption.

In order to comply with the written anti-corruption policy, the Company also builds up recognition of anticorruption practices in the organization by way of training, using both physical and psychological approaches, to develop a positive attitude because the Company believes that decency emanates from inside out, as well as surveying the compliance with the code of business ethics yearly for executives and staff to review their conduct in accordance with the code of business ethics.

The Company treats misconduct relating to fraud and corruption as serious disciplinary misconduct, and any violation is subject to severe disciplinary action up to termination of employment without prior warning. The details of such misconduct are described as follows:

- Disclosure of the Company's confidential information to any third parties;
- Breach of duty and/or fraudulent acts towards the Company, including a conspiracy with others to do so;
- Abuse of position for personal interest or for the interest of others;
- Acceptance of undue consideration in relation to assigned tasks;
- Showing impolite manners or use of aggressive, threatening, insulting words or causing bodily injury to supervisors, including visitors or persons related to the Company.

In preparation for the application for certification of membership in Thailand's Private Sector Collective Action Coalition Against Corruption, the Company had various departments conduct a self-assessment to identify potential improvements in compliance with the anti-corruption measures in Thailand's Private Sector Collective Action Coalition Against Corruption. Moreover, the Company assigned two representatives, who are responsible for the corporate governance and the internal audit, to attend the Anti-Corruption: The Practical Guide (ACPG 15) course, organized by the Institute of Directors Association (IOD).

# Risk Management and Opportunities



The Company realizes the significance of the management of risks from business operations under the changes of internal and external factors affecting its operational results. Risk management is considered a key instrument for business administration to ensure efficient and effective achievements and promote its competitiveness, as well as a key factor of Good Governance. The Company thus arranges for the systematic risk management, monitoring, and adopts measures to minimize risks continuously. The Board of Directors has appointed the Corporate Governance and Risk Management Committee for policy-level consideration on the adequacy and appropriateness, with the Management to supervise the overall risk management process of the organization and perform daily routine work on behalf of the Corporate Governance and Risk Management Committee to monitor, evaluate and prepare a report on risk management to the Board of Directors for information.

In addition, the Company has also prepared an annual risk management plan, a risk management handbook as guidelines in the operations, and regularly monitors, evaluates, reviews risks quarterly to be in line with the everchanging internal and external circumstances, including a backup plan in case of emergency, in order to ensure prompt action in solving problems and coordination with relevant units at all times.

### The risk management policy of the Company is laid down as follows:

- To adopt a risk management process in accordance with international standards or practices to ensure the efficiency of risk management, implementation and development in the same direction in organization-wide manner in line with the business operation policy of the Company.
- To treat the risk management as part of work, significant decision-making regarding management, and strategic planning to achieve the specified objectives, goals, missions and vision of the Company.
- To carry out proactive risk management to manage risks which may result in the Company's loss of interests and opportunities.
- 4. To delegate risk management as the staff's responsibility at all levels and manage risks within their work units and the organization to contain risks at an adequate and appropriate level.
- 5. To determine guidelines for prevention or reduction of risks at a level acceptable to the Company in order to formulate plans to manage and control risks to at an acceptable level. All work units must consider the justification of expenses or costs to implement risk management measures in comparison with expected benefits.
- To efficiently communicate the risk management within the Company for staff's effective learning, development, and compliance.
- To prepare an annual risk management plan subject to consideration and approval of the Corporate Governance and Risk Management Committee in respect of sufficiency and appropriateness to the current business circumstances.
- To regularly follow up and assess the results of risk management to make sure that risk management is duly and properly conducted.

#### **Major Risk Management**

#### **Systematic Risk**



# Risk from Business Operations under Agreements with Government Sector and Government Policy

#### Risk

Operation of its businesses under the relevant Concession Agreements subject to the supervision of the government agencies, differences in the contractual parties' interpretations on terms and conditions of the Concession Agreement may arise in various matters, which may require a certain period of time to come to a solution, and then, it may impact the Company's business operations.

Moreover, the political uncertainty and changes in government administration from the political party in charge may result in changes in policies, relevant laws or regulations, that possibly affect consideration to extend the concession periods under the Concession Agreements or terms and conditions stated, thereby rendering EXAT or MRTA unable to perform its obligations under the relevant Agreements or it may require the Company to proceed beyond those specified in the relevant Agreements or undertakings.

#### Management

A joint operating system with the government agencies both at the administrative and operation levels is established, by sharing sufficient information to ensure good understanding towards each other, as well as closely and regularly monitoring the political situations and changes in policies.

The strategies and operational plans are reviewed to be reasonably suitable for the situations and for their mutual interest in the long run.



#### **Risk Relating to Revenues less than Projections**

#### Risk

The Company's core revenues are tolls and fares, which may be affected by several external factors beyond the Company's control. Moreover, the Company generates commercial development revenue, which may vary depending upon the local and overseas economic conditions, competition in advertising media and retail space lease business, as well as the period in opening of retail shops in the stations, several factors of which are beyond the Company's control.

#### Management

The Company establishes a unit to closely monitor any impact which may affect various factors, and adapts appropriate strategies. In addition, the Company can limit potential impacts from risk factors, such as oil prices, road traffic congestion, and fare rates of other available alternative transit systems, due to the Company's full services of expressways and metro, both of which are considered substitute products. With respect to the commercial development, the Company will develop new advertisement media to increase its commercial development revenue, including its plans to develop more retail space.



#### **Risk from Interest Rate and Foreign Exchange Rate Fluctuations**

#### Risk

The increased interest rates on loans may affect the Company's operational results due to the floating interest cost in respect of the certain credit facility, thereby putting the Company at risk by bearing an increase in expenses from interest rate fluctuation or increase in the money market.

In addition, the Company incurred expenses in foreign currencies, part of which had to be paid in foreign currencies. Thus, should the Baht value depreciate, the Company's expenses will increase accordingly.

#### Management

The Company manages such risk from interest rate fluctuation, by arranging for the loan structure, divided into loans at floating interest rates and loans at fixed interest rates including plans to issue debt instruments or debentures as suitable to the economic conditions and the Company's view of the future interest rates.

The Company sets up a policy to minimize risk from the exchange rate, such as, negotiations for reduction of foreign currency expenses and buying forward, etc.



#### Risk from Serious Accidents, Public Unrest, or Natural Perils

#### Risk

The Company's businesses of both construction and management of the expressways and metro are exposed to an event or external factor which results in an emergency, which may force the Company to suspend its services, thereby giving rise to loss of revenue, damaging assets, tarnishing image and destroying reliability of the Company.

#### Management

The Company has set forth emergency plans in response to any events which may suddenly occur, and arranges for staff training to ensure that the staff in charge will be able to immediately take actions to resolve such emergency, by way of simulation of such various situations as well as establishes a unit for monitoring, alerting and coordinating with relevant agencies to prevent the occurrence of any serious accident and to be ready for rescue operations, and provision of security staff in all areas.

The Company has taken out insurance against property all risks, business interruption, public liability, and terrorism in respect to the metro service business.



#### **Risk in respect of Personnel**

#### Risk

Due to the expediency in expansion of the metro network and the connecting system to other transportation systems under the strategic planning of the government sector, it is highly possible that there will be governmental organizations or private agencies operating the mass rapid transit system business which requires additional personnel with knowledge, expertise, and skills in the technical field in the rail business. As a result, it is likely that the Company's main personnel will be enticed away from the Company.

#### Management

The Company has laid down risk management in respect of personnel, starting from the nomination and selection of good and qualified personnel; continuous staff training provision and development to improve knowledge and skills in various fields necessary for the performance of work based on each staff's position and designated duties; encouragement of the staff morale; consideration of appropriate and fair remuneration and welfare; organizing outing activities to encourage staff to love, unite, feel connected with the organization; review and improvement of the operation process and work system to ensure readiness at all times, as well as preparation of the succession plan, whereby the Company has prepared the succession plan and appointment of a working group comprising high-level executives to set up guidelines in the selection of staff to ensure the availability of personnel, both in the executive and supervisor levels; in order to prevent the risk from a shortage of personnel having knowledge, expertise and technical skills for specific work, the Company has arranged for collection of the body of knowledge for specific work and extended the results to the knowledge management program and in order to continuously improve the work process.



#### **Risk in respect of Information Technology**

#### Risk

The Company employs the cutting-edge technology to support its operations, including the provision of the services with the highest efficiency in a constant manner, which there may be a risk from disruption of main work systems, and an attempt to have unauthorized or unapproved access to the information technology system of the Company, from both internal and external persons, including computer virus attacks; there may be a risk in a manner which the toll collection system and the fare management system may be disrupted and out of service.

#### Management

The Company has drawn up emergency plans, comprising preventive and corrective plans for system equipment, on a regular basis, for prevention and arranging for staff in charge to ensure their access to tackling problems immediately if an emergency occurs in the work systems.

Moreover, the Company has passed the inspection and has obtained certication of the information security management system (ISO/IEC 27001:2013) as for the basic structure of the toll collection system at the toll collection computer center on July 5, 2018, for three years.

#### **Corporate Specific Risk**



#### **Risk from Legal Disputes**

#### Risk

#### Management

The disputes had arisen from different interpretation of several matters, such as adjustment of toll rates and responsibility for costs under the Agreements. The Company and the Expressway Authority of Thailand (EXAT) have mutually negotiated and agreed to compromise and settle the disputes.



#### **Risk Relating to Fluctuation of Cost of Rail Business**

#### Risk

#### Management

The Company's contract is in foreign and Baht currencies, subject to adjustment based on the Consumer Price Index as specified in the contract. Given the long-term contract, the Company will be then exposed to risk due to changes in such indices. The public utility cost mainly comprises the cost of electricity used at the metro stations and for train operations. The cost of electricity may be adjusted according to the electricity rates of the Metropolitan Electricity Authority, which may result in the Company's increased cost. Therefore, the Company's costs of rail business in respect of the cost of fare box vary according to the aforesaid costs.

The Company remains able to effectively control its cost of the fare box. Moreover, the cost of fare box is mostly fixed cost, not varying directly according to the increased volume of passengers, provided that there is no material change in the volume of passengers to the extent that the Company is required to add the number of trains for service to enhance the capacity to accommodate the passengers.

Remark: For further details, see Annual Report 2018, page 86.



# Risk from Engagement of Outsourced Experts as Main Contractors for Supply and Maintenance of the M&E Equipment

#### Risk

#### Management

The Company has accepted the transfer of the agreement for the procurement of the M&E Equipment and an agreement for maintenance of the M&E Equipment with main contractors, namely, Siemens Limited, Thailand, and Japan Transportation Technology (Thailand). Thus, in the event that such outsourced expert group, as such main contractors, is unable to provide services under the agreements to the Company or there is any change in the maintenance agreement, the Company's business operation may be affected and if the trains cannot be opened for service, the Company's image may be affected.

The Company managed the risk by studying information from members of the International Association of Public Transport e.g., UITP, APTA, NOVA Group of Metros, including the advice from Ricardo Rail Limited, the highly experienced consultant. There is a possibility to select and procure other manufacturers' M&E Equipment which is compatible with its existing system. The Company also formulates the strategic plan in developing the quality of its personnel to have sufficient capabilities for working with local and overseas equipment manufacturers and contractors in the maintenance and repair of the M&E Equipment and the rail system to ensure its efficiency without reliance on the sole existing manufacturer.

Risk Management

The disputes had arisen from different interpretation of several matters, such as adjustment of toll rates and responsibility for costs under the Agreements. The Company and the Expressway Authority of Thailand (EXAT) have mutually negotiated and agreed to settle the disputes.

Remark: For further details, see Annual Report 2018, page 85.



#### Risk from Work Operations of Expressway Construction and Management Business

#### Risk Management

The Company takes into account the risk from operations of expressway construction and management business which may be resulted from primary factors, i.e., personnel, work system, operation system and external factors, which cause error or insufficiency of work procedures, employees, work system or information technology system, including employees' fraud and events or external factors, which may give rise to monetary and non-monetary damage, namely, damage to reputation or security of the Company. Therefore, it is greatly necessary to have a careful and thorough supervision system.

The Company has arranged for a specific unit having duties to monitor and maintain the routes and toll collection system in accordance with the operation standards, which can be assured by the experience and expertise of staffs in charge from all divisions, thereby leading to the quality and availability of efficient, complete and continued service.

The Company has also established the preventive measure for the significant structures of the expressway systems so as to be available for full-time service by drawing up a plan for inspection of the expressway structures to be in line with the inspection by JMI Pacific Co., Ltd., a designing company with expertise in structural inspection. The monitoring, surveillance, and maintenance were conducted to ensure that there would be no impact on the use of the expressways. As for the toll collection, communication and traffic control systems, which are important to the Company's operations. The Company has provided the preventive maintenance as well as the data backup system, the standby power system and the management of purchase of spare materials.



#### **Risk from Delayed Construction and Operation of the Projects**

#### Risk Management

The Company executed the Concession Agreement for the MRT Blue Line Extension Project (Blue Line Extension) with the Mass Rapid Transit Authority of Thailand (MRTA) on March 31, 2017, whereby the Company shall have duties in supply, installation, and test run and commissioning of the M&E Systems for the MRT Blue Line Extension Project, provided that such M&E Systems shall be connected with those of the M.R.T. Chaloem Ratchamongkhon Line Project in order to provide the train operation service in phases as planned.

The Company has managed such risk by entering into an agreement engaging CH. Karnchang Public Company Limited as Project Manager, as well as for supply, installation, and test run and commissioning of the M&E Systems for the Project.

At present, there are remained risk from the operation of Phases 2 and 3. Nevertheless, the overall progress of the MRT Blue Line Extension Project was currently as planned.



### Supply Chain Management

The Company gives importance to each and every steps of the acquisition of products and services in a supply chain. The Company believes that supply chain management is deemed a major strategy to add value to safety, convenience and rapidity in the service provision.

The Company deals with the supply chain in strict compliance with international standards, ISO 9001 Quality Management System, and ISO 14001 Environment Management System, by way of providing education and close monitoring and audits to ensure that the supply chain of traders in business association with the Company takes account of environmental impact, in the interests of the sustainability of their mutual business alliance. Meanwhile, the Board of Directors also approved the principles as guidelines for the Company's participation in execution of trade transactions with fairness in respect of engagement, execution of transactions between the Company and its subsidiaries, including other related transactions.

The Company formulates a policy to fairly treat its business partners and promotes the knowledge, understanding, practice, development in accordance with the framework for sustainable development in the Company's business sector, building reliability through the fair business operations with its traders and financial supporters, regarded as key success factor which enables the Company to deliver the quality services to the expressway users and the MRT passengers even during a crisis. The Company then set out the practices towards traders in a way of the business operations with fairness to ensure that acquisition of goods and services meet standards, with the commitment to developing and maintaining sustainable relationships with traders, and having the clear objective regarding quality of goods and services as suitable for monetary value, technical quality and trust in each other.

#### **Procurement Policy**

Procurement shall be carried out in an honest, ethical, reliable, transparent and auditable manner.

shall be subject to clear criteria and procedures, for the optimal benefit of the Company, with quality, punctuality, and fairness towards related

stakeholders.

Procurement

Green procurement shall be supported and promoted.

The legitimate procurement of goods and services and domestic production shall be given the first priority, by realizing the safety, environment and occupational health.

04

Relationships
with trade
counterparts,
stakeholders,
shall be
strengthened and
maintained for
sustainable
business
development of
the Company.

05



### Selection of Traders and Formulation of Policy on Goods and Services

The Company has a commitment to standards of the Company's goods and services alongside development and maintenance of sustainable relationships with traders. The quality of goods and services must be worth its value, have technical standard and creditability. The Company, therefore, provides fair and equal procurement procedures for all traders and follows the procedures in a systematic way in compliance with the work procedures regarding procurement and conditions of contracts or agreements with fairness in accordance with the requirements of ISO 9001 Quality Management System, based on the practices, as follows:



 Determining the criteria for selection of trade counterparts through a strict screening process to ensure fair business operations without violation of human rights.



4. Arranging for management, monitoring, surveillance, including rechecking systems to ensure the full compliance with contracts or agreements and internal control system to prevent fraud and misconduct in all steps of the procurement procedures.



7. Evaluating traders on a yearly basis and informing them of the results of the evaluation with suggestions for traders to continuously improve the quality of goods and services, and also allowing traders to contact the Management to make any complaints if they are unfairly treated.



 Ensuring equal and fair competition on a database, without discrimination or preventing any trader from participating in business competition.



Paying consideration to traders on time in accordance with terms of payment as mutually agreed.



 Refraining from seeking any trader's confidential information dishonestly or improperly, such as bribing directors and staff of its competitors.



Preparing contracts or agreements in appropriate, fair and standard forms.



 Not allowing directors and/or staff to accept any benefit from traders privately or by reason of personal relationship.



 Refraining from making a serious accusation against traders without reasonable grounds.

This includes strict compliance with the requirements of the ISO 14001 environmental management system through provision of knowledge, understanding and close monitoring system, to rest assured that the supply chain transacting a business with the Company has carried out its operations with environmental care to ensure sustainability in mutual business operations. As for the group of nancial supporters, namely, lenders, debenture holders, creditors, the Company is determined to comply with agreements and commitments and maintain the nancial discipline on a strict basis.

#### Prioritization of suppliers, divided into four groups, which can be summarized as follows:

#### PVL:

Potential Vendor List = a group of suppliers with potential in provision of services to the Company

#### AVL:

**Approved Vendor List** = a group of suppliers as traders/service providers with the Company, which are registered in SAP system

#### Q-AVL:

Quality Approved Vendor List = a group of suppliers as traders/service providers with the Company, which are registered in SAP system and meet the requirements for special consideration as specified in the work practices, with which purchase orders can be placed without comparison with other suppliers.

#### BVL:

**Blacklist Vendor List** = a group of suppliers as traders/service providers with the Company, which are registered in SAP system, but their results of service provision/performance fail to meet the requirements, and are subject to suspension of purchase order until they can prove that they have development/improvement and are successfully removed from the blacklist of this group.



#### **Inspection of Traders' Working**

The Company has arranged for management, monitoring, surveillance, including rechecking systems to ensure the full compliance with contracts or agreements and internal control system to prevent fraud and misconduct in all steps of the procurement procedures. That is, annual assessment of traders is made and traders are notified of assessment results together with suggestions so that they will continuously improve quality of goods and services.

In this regard, the Company has allowed traders to contact the Management if they are treated unfairly.



### Safety of staff and contractors

The Company has conducted its safety work in accordance with Thai laws and local and international safety standards, i.e., TIS 18001:2011 and OHSAS 18001:2007, as assessed by TUV NORD (Thailand) Limited. The main objective is to supervise welfare for work performance in respect of occupational safety, health, and environment of staff and persons in connection with operations in the metro system. The Company also communicated Plod Online E-magazine with its staff to ensure their awareness of safety, quality, and environment.





The Company has adopted the green procurement policy, which is clearly announced via www.bemplc.co.th, as well as incorporating criteria for selection of eco-friendly goods in the procurement procedures. The initial criteria for the procurement are laid down as follows:

- To use materials which have a minimal environmental impact, such as, non-toxic, reusable, recyclable materials, and materials through low-energy supply, etc.
- To use less materials, such as with low weight, small size, the least amount of materials, etc.
- To apply the most efficient production technology, such as using clean energy, minimizing waste from the production process and reducing the production process, etc.
- To adopt the most efficient transportation and distribution system, such as reducing the use of disposable containers or packaging, using containers or packaging that are made of reusable or recyclable materials, and opting for the most energy efficient transportation routes, etc.
- To minimize an environmental impact arisen during the operation, such as low power consumption, low
  emission during the operation, reducing the use of disposable materials, and reducing the use of
  unnecessary parts, etc.
- To be worth throughout the useful life, such as durable, easy to repair and maintain, capable of being modified or added, without unnecessary replacement.
- To systematize the highly effective system management after the expiration, such as collection with a
  minimum detrimental impact on the environment, design of goods or parts to be easily reusable or
  recyclable, or if they are intended to be disposed of, energy recycling, and safety in landfill.
- To ensure products or services that are labelled eco-friendly or green.
- To ensure products or services from organizations that receive environmental quality certification from institutions or government agencies in Thailand or abroad.
- To ensure goods or services in the List of Thai Green Products of the Thailand Environment Institute, Thai Industrial Standards Institute, Ministry of Industry, or the Pollution Control Department, Ministry of Natural Resources and Environment, or any other overseas agencies of similar nature.
- To supply from sellers/service providers that receive environmental management standard certification, such as, ISO 14001 or other environmental standards, which can be proved with evidence, etc., or those who support environmental conservation in Thailand, which can be proved with evidence, for instance, donating proceeds to charitable environmental organizations, support forest planting, support reuse-refillrecycle, which can be proved with as evidence, etc.

## Responsibilities for Goods and Services



The Company, as the expressway and metro service operator, is committed to fulfilling the people's requirements for their travelling via the expressway network which has been connected and stretched to the central business districts of Bangkok and its vicinity, with the convenient and rapid service, and above all, safety which is the first priority of which all staff have to be aware and they shall strictly comply with the safety requirements of the Company, including public relations regarding safety via media and activities to ensure knowledge and understanding of the general people. Furthermore, the Company has conducted a study on new routes in response to the urbanization in the future.

In regard to the expressway business, the Company has conducted the study and development engineering safety in accordance with international standards, including addition of Easy Pass lanes, and relocation of the positions of the entrance gates to minimize traffic conflict points with the lanes in front of the toll plazas, which will help mitigate the traffic congestions in front of the toll plazas. Furthermore, the Company has added communication channels on traffic information via Smart Traffic and Variable Message Signs (VMS) to keep motorists informed of the traffic conditions on expressways, as well as continuously improving signboards for the expressway usage on the at-grade main road and various alleys so as to facilitate and boost confidence in access to service use of the expressways.

In respect of the rail business, the Company focuses on quality services on the motto "Service above all else" and formulates its policy to ensure that the MRT service becomes lifestyle of Bangkok residents under the Company's professional operations. The Company sets out the business goals for quality services, namely, safety which is the top priority; convenience by emphasizing the importance in taking care of all equipment and facilities to properly function; rapidity by keeping the average train speed aligned with the timetable in response to passengers' needs during peak hours and off-peak hours; reliability by maintaining the trains and signalling systems to ensure they are in a good condition; and punctuality by keeping the train timetables and stops at every station punctual, with the least possible deviations.

As for the commercial development business, it is considered as the Company's non-core business to which the Company also gives importance other than its core businesses, thereby diversifying the Company's services which can fully satisfy the needs of the service users. In this regard, the Company has developed spaces for retail shops and sale promotions covering the total of 19,490 square meters. In the previous year, the Company did develop the spaces in the basement level of the Park & Ride Building at Lat Phrao Station, in association with the Mall Group, to make the supermarket



of premium quality under the "Gourmet Market" brand name available in order to fill a demand of the urban life, resulting in an opportunity for those who wish to start a business, as well as expansion of spaces to accommodate a growing volume of metro use in the future. Furthermore, the Company has allowed private entities and individuals to engage in commercial operation in the vicinity of the expressway system for installation of Intelligent Traffic Signs and various advertising boards, including use of spaces as retail shops around toll plazas, etc.

# Customer Relations Management



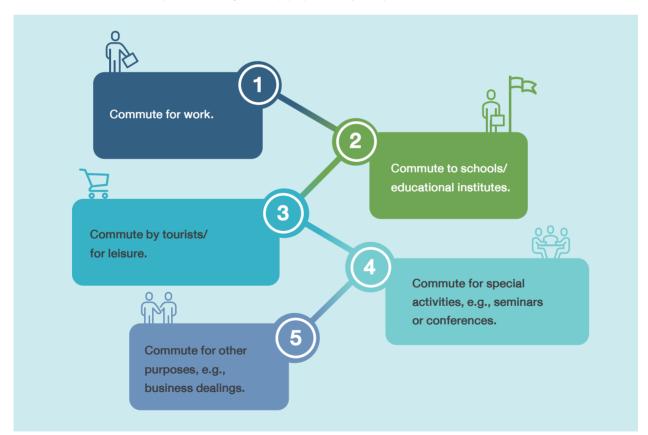
#### **Business Expressway**

Target customers of the expressway users refer to those motorists who desire a convenient and rapid transportation; have a shortened traveling distance to their destinations as well as to avoid the traffic congestion along the normal roads in Bangkok and its vicinity. The customers using the expressways can be classified according to types of vehicles into four-wheeled six-wheeled to ten-wheeled and more than ten-wheeled vehicles, which in 2018, accounting for 98.04 percent, 1.72 percent and 0.24 percent, respectively.



The Company's target customers of the MRT passengers can be divided into two groups, namely, residents nearby the metro routes and those who need to pass or head for other destinations along the metro routes.

For both businesses, they can be categorized by purposes of journeys as follows:





#### **Commercial Development Business**

With regard to the target customers of the commercial development business in the expressway and metro businesses, there are different customer characteristics and target customers varying on service types.

# Strategies for Customer Relations Management

Customer Relations Management (CRM) is an approach to manage customer data system and build a network compatible with the CRM process, which serves as a central mechanism for loyalty marketing, focusing on efficient and effective response to ensure customers' satisfaction, by adopting a strategy to organize activities; and to classify target customers to draw up a strategy on sales promotion to effectively cover all target customer groups; sales promotion and marketing plans based on each group of target customers' lifestyle and settings, for instance, bimonthly BEM Magazine containing information on the Company's profiles and fun activities which are offered as giveaways to the expressway users, the MRT passengers and shareholders, as well as being disseminated via the Company's website.

The customer relations activities annually organized by the Company include good family relationship activities on the occasions of the National Mother's Day and the National Father's Day for the expressway users; creation of the MRT Club community for building relationships by using social network and communication channels within the MRT stations to organize activities in alliance with partners on the win-win strategy through MRT Club memberships, for instance, offering gala movies in association with Major Cineplex Group, registering for a chance to win free concert tickets from BEC-TERO, offering the MRT cardholders discounts on SF Cinema movie tickets, etc.

# Marketing and Promotion Strategies of Expressway Business

The Company periodically offers a discount on tolls on certain routes within a limited period of time, aimed at attracting target customers to continue to use the expressway services and eventually become regular customers. In 2018, the Company continued to provide a discount on the Udon Ratthaya Expressway of one of its subsidiaries (NECL), to motorists at Muang Thong Thani Toll Plaza.

During the New Year's Festival, the Company, in association with EXAT, have annually distributed souvenirs to the expressway users. In addition, to celebrate on the occasion of the previous New Year's Eve, the Company jointly supported EXAT in public relations of offering a discount on application fee for Easy Pass from Baht 1,000 to Baht 500. EXAT also organized a pilot project to give a discount of Baht 5/trip to the Easy Pass users at Asoke Toll Plaza 4 or representing a 10-percent discount from Baht 50, remaining Baht 45, only on business days during peak hours (6.00 - 9.00 hrs.) from November 1, 2018 to December 28, 2018, in order to encourage the expressway users to use more Easy Pass, thereby reducing accumulated traffic congestion at the front of the toll plaza; reducing air pollution by enabling motorists to drive uninterruptedly without stopping to pay their tolls. In so doing, one vehicle equipped with Easy Pass can reduce carbon dioxide (CO<sub>2</sub>) emissions at 155 grams/kilometer; as well as enhancing the quality of life of the officers on the expressways.



MRT Lucky Hour for Early Birds to Celebrate New Year's Eve 2018



Good Family Relationship Activity on the occasion of the National Mother's Day



Moreover, the Company constructed another three lanes for toll collection at Chim Phli Toll Plaza which is the first inbound toll plaza of the Si Rat - Outer Ring Road Expressway, totaling 9 lanes, in order to accommodate an increase in traffic volume which provides the convenience and rapidity for the service users. The construction was completed and the service was opened in the late 2018.







The Company implemented in response to the government policy by participating in the drive safety campaign known as "Driving Slowly, Daytime Headlight Switching on, Seat Belt Fastening", for the motorists' facility and safety during the Songkran and New Year Festivals, and the Company also organized the Lady Safety Driving activity to promote safe driving, provide driving techniques for handling emergencies to reduce possible accidents, together with basic car care tips for women, as well as taking them to visit the Si Rat - Outer Ring Road Expressway Control Center. The Company promoted the drive safety campaign via social media on the expressways and traffic radio station to the target customers to raise awareness of safe journey among them, as well as resting assured of the quality service on the expressways, and activities supporting use of the services of the Company.





In 2018, the Company organized Roadshow activities for public relations on the expressway route of the Si Rat - Outer Ring Road Expressway at the places along the expressway route to meet and discuss with the target groups to build relationships and receive useful information for use in further improvement of the services.

# Marketing Promotion Strategies of Rail Business

The Company's classification of target customers is intended to draw up a strategy on sales promotion to effectively cover all target customer groups. As such, the Company's sales promotion and marketing plans based on target customers' lifestyle and settings are described as follows:

- To support and promote the park and ride facilities to encourage more passengers to park their personal cars at the service locations and use the MRT service to commute to such business districts as Sukhumvit Road, Silom Road, Ratchadaphisek Road, in order to help alleviate traffic congestion and minimize global warming.
- To accept credit card payments for passengers' convenience, and collaborate with leading companies and banks, namely, AIS, KTC, Citibank, UOB, Bank of Ayudhya, Muang Thai Life Assurance, FWD Life Insurance, for providing discounts and cash back, including credit card reward points, in order to create value added to the MRT service, and offer special benefits to metro card holders with an aim to change passengers' behavior from using token to using metro cards for the sake of convenience, rapidity and special benefits.





- To increase the number of passengers or trips in the system through information services on highlighted events along the MRT routes, and offer various types of customized metro cards bearing specific logos or signs of agencies, organizations, office buildings or hotels both along and beyond the routes, for public relations and sales promotion, in order to distribute the metro cards to both current and new target customers.
- To create brand loyalty and awareness through various activities to promote marketing campaigns, rewards to customers and society, and corporate image towards young customers and service users by creating value added collaboration on a regular basis, namely, building relationships with alliances to seek privileges for the cardholder passengers in a form of discounts on shops, restaurants, movie theaters or events surrounding the MRT route.
- To develop the electronic payment system for online top-up and mobile payment with TrueMoney Wallet, and draw up a plan to develop the electronic payment system for retail shops within Metro Mall to make it more convenient and rapid for the MRT passengers.
- To encourage the people to use government welfare smart cards in travelling with the MRT system, by improving the automatic fare collection systems (AFC) of the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line Project) and the M.R.T. Chalong Ratchadham Line Project (MRT Purple Line Project) to accommodate usage of their government welfare smart cards in travelling with the MRT system.

#### **Customer Satisfaction Survey**

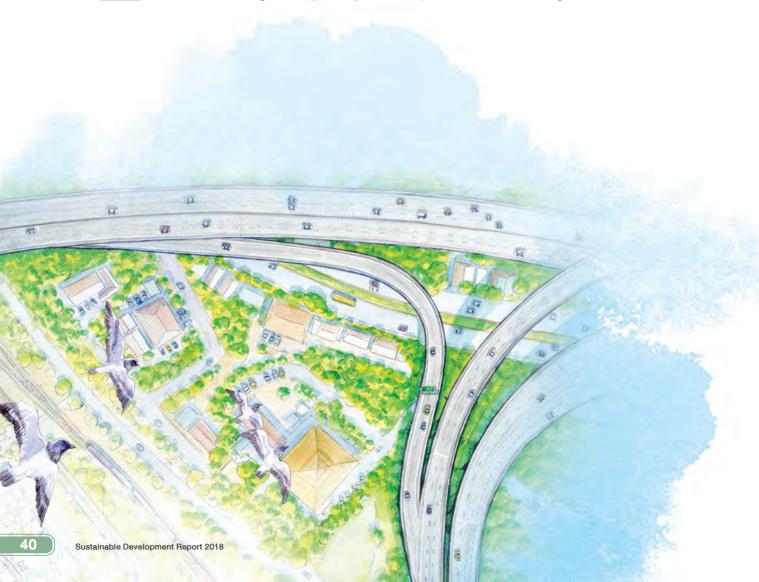
This was because of difference in travelling behaviour of the customer groups of the expressway business and the rail business. The Company carried out the customer satisfaction survey for both businesses by analyzing information on the expressway users and the MRT passengers to produce average score results of satisfaction, which are divided into five scales as follows:

Average score	less than or equal to 0 - 30%	refers to	Very Dissatisfied
Average score ranging	30.1 - 50 %	refers to	Dissatisfied
Average score ranging	50.1 - 70 %	refers to	Fair
Average score ranging	70.1 - 90 %	refers to	Satisfied
Average score ranging	90.1 - 100 %	refers to	Very Satisfied



The result of toll collection service satisfaction survey of the Si Rat - Outer Ring Road Expressway for 2018 showed an average score of 92.62 percent which was rated "Very Satisfied".

Remark: The Si Rat - Outer Ring Road Expressway has been opened for service since August 22, 2016.



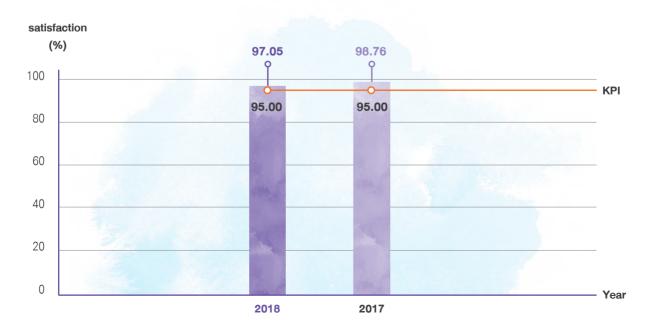
# Rail Business

The results of MRT passenger satisfaction survey of the M.R.T. Chaloem Ratchamongkhon Line Project (MRT Blue Line) for 2018 and 2017 showed average scores of 99.46 percent and 98.37 percent, respectively, which were rated "Very Satisfied".



Remark: The results of the overall MRT passenger satisfaction survey of the M.R.T. Chaloem Ratchamongkhon Line Project (MRT Blue Line) for 2008 were rated "Satisfied" and from 2009 – 2018 were rated "Very Satisfied".

The results of the MRT passenger satisfaction survey of the M.R.T. Chalong Ratchadham Line Project (MRT Purple Line) for 2018 and 2017 showed average scores of 97.05 percent and 98.76 percent, respectively, which were rated "Very Satisfied".





## Human Resource Management



#### **Personnel Development**

With the Company's business nature is to provide the services of both expressway and metro systems, the Company has then developed its own bodies of knowledge, with the aim of becoming a learning organization, by developing bodies of knowledge in particular areas of the Company's businesses for its staff through both training and on the job training. Moreover, the Company introduced to pass these particular areas of knowledge on to various educational institutions for ensuring a body of knowledge relating to management of the expressway and metro systems, to school, university students, which may become key human resources of the Company in the future.

For the reason that the Company gives priority to personnel development, the Company draws up an annual staff training and development plan for its staff at all levels, which will be implemented within the "Academy Framework", consisting of technical skill courses with refresher training to be given its staff on a yearly basis, in which there will be theoretical and practical tests so as to ensure that all trained staff are able to properly discharge their duties on a basis of safety; and soft skill courses as designed for its staff to be able to apply the acquired knowledge and understanding to their jobs efficiently.





#### **Particular Skill Training Courses**

All staff of the Company must attend to the fundamental training relevant to rules, regulations, policies of the Company; and thereafter, operational and engineering staff will have to attend functional training course which includes technical skill-related subjects, as follows:

#### 1) Rescue Operation and Traffic Management

Rescue staff on the expressways will have to be drilled in rescue operation and assistance in case of accidents on the expressways; undergo safety training every year, skill training on use of the rescue operation vehicles on the expressways, safe driving training, traffic volunteer training, and on the job training; and the Company has arranged for three-month new staff orientation prior to actual operation on the expressways, as well as service mind training.



#### 2) Toll Collection Operation

The Company's staff in charge of toll collection operation refer to staff whose duty is to collect tolls on the Si Rat - Outer Ring Road Expressway. The Company provides the skill training in toll collection to ensure that tolls are correctly and completely collected for facilitating the expressway users' toll payment to be made rapidly. The Company's staff in charge of toll revenue operation of the Si Rat Expressway and the Udon Ratthaya Expressway are responsible to ensure that tolls are correctly, transparently and honestly collected, in collaboration with the government sector, namely, EXAT which has the duty to collect tolls from the expressway users. The Company provides on the job training regarding the roles and responsibilities of toll collection controllers, emphasizing that tolls must be collected timely, and the counting of vehicles and collection records must be verified for accuracy and precision.

In addition, the condition of toll collection equipment must be checked to make it ready for full-time service and to ensure the accuracy of toll collection, which will help assure the Company's complete revenue streams and equally protect the interests of shareholders and stakeholders. Staff in charge of this field of work have been provided the opportunity for overseas study visits on toll collection systems.



#### 3) Structure Maintenance Operation

This is to ensure that the expressways will be ready and safe for service, the Company then has regularly provided the training on structures for its engineering staff to ensure that they specialize in the inspection and maintenance of the Segmental Box Girder structures in accordance with international standards.

# 4) Train Control Officer and Train Operation Control Officer Training

The train control officer training takes at least 600 hours of training and the train operation control officer training takes at least 1,100 hours of training, which are provided in theory and in practice by way of actual train driving and train-driving simulator, training to use equipment in train operation control room, emergency response drills and exercises, including on the job training, where safety is given the top priority, whereby professional trainers are provided to closely monitor staff's training. Moreover, the Company's staff are given refresher training on a yearly basis, e.g., training for work rules and regulations, how to use equipment, train driving practice, repair and maintenance of equipment within the metro system, etc., including safety-related subjects, such as fire extinguishing and first aid, emergency response, together with various service training courses to ensure that all trained staff are able to impress the passengers with the safety-realized services.



The Company has not only provided the particular fields of knowledge training and education, but also the Company's knowledge management to ensure that those knowledge is systematically stored and available to be passed on to all company-wide staff as well as providing training in other fields which encourage and promote them to work more efficiently.

# %<u>7</u>

#### **Knowledge Management (KM)**

The Company implemented the knowledge management project as intermediate KM Roadmap, with the objectives to identify the body of core knowledge necessary and important for the organization, to ensure a systematic collection of knowledge for all staff to have wide access to the source of such knowledge, knowledge sharing for ensuring the optimum benefits, and furthering the Company's corporate transition into a learning organization. Other than the management of core knowledge for the Company's businesses, the Company also promoted a community of practices (CoPs) to ensure learning and sharing of work experiences, problem-solving, including solutions and improvement to work processes, in order to come up with the best practices.



# Codes of Conduct and Business Ethics Training

This training course was intended to serve as guidance for all staff regarding their work responsibilities and duties and to ensure that they understand and follow the preliminary guidance described in the Company's Codes of Conduct and Business Ethics handbook, which is in line with the Company's vision, mission, and corporate culture, in order to achieve goals for improved quality of work and life for staff. The Company also provides for refresher training to update staff's knowledge by way of E-Learning & E-Exam, which all new staff are required to attend, including regular exams for the existing staff on a yearly basis.



The Company put into practice the idea of developing staff competency by improving the Training Roadmap for all levels of staff, namely, executives, supervisors, and operational staff. The roadmap is intended to make sure that staff gain basic knowledge and skills required for their work performance, both technical and soft skills. These two types of skills are fostered in mandatory programs for new staff, e.g., an orientation program for new staff about the Company profile, rules, regulations, and requirements; including a work safety program and a quality management system program, etc.

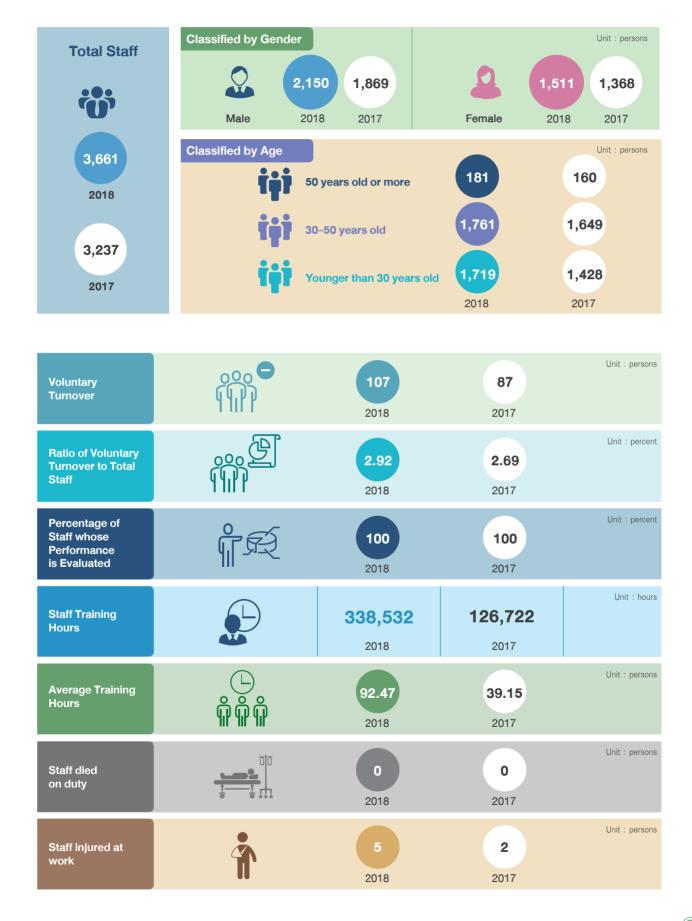
The existing permanent staff are provided refresher training on knowledge every year. All of these training programs enable staff to apply such knowledge to their work performance and adapt themselves to the corporate culture, so as to have a sense of pride and to conduct themselves properly and in line with the goals.





#### **Personnel Management Overview 2018**

Information as at December 31, 2018



#### Information of Personnel Classified by Gender, Age and Position 2018

High-Level Executives (General Manager level or higher)						
	Male	Ratio of Male Executives to All Staff	Female	Ratio of Female Executives to All Staff	Total	Unit : persons
50 years old or more	16	0.44%	15	0.41%	31	
30-50 years old	15	0.41%	5	0.14%	20	
Younger than 30 years old		-		-	-	

Middle-Level Executives (Manager level)						
	Male	Ratio of Male Executives to All Staff	Female	Ratio of Female Executives to All Staff	Total	Unit : persons
50 years old or more	13	0.36%	9	0.25%	22	
30-50 years old	63	1.72%	25	0.68%	88	
Younger than 30 years old		-		-	-	

		Staff			
	Male	Ratio of Male Executives to All Staff	Female	Ratio of Female Executives to All Staff	Total Unit : persons
50 years old or more	92	2.51%	53	1.45%	145
30-50 years old	1,168	31.90%	651	17.78%	1,819
Younger than 30 years old	781	21.33%	755	20.62%	1,536

#### Information of Personnel Classified by the Company's Business





- Remarks: 1.) There was no significant change in the number of staff over the past three years.
  - 2.) There was no significant labor dispute over the past three years.

#### Information of Subsidiaries' Staff



## Human Rights



The Company has adopted the policy for promotion and respect for protection of human rights by treating all stakeholders, including staff, nearby communities and society. With respect and taking into account the equality and equal liberties, non-violation of fundamental rights and non-discrimination on the basis of race, nationality, religion, language, color, gender, age, education, physical condition or social status, as well as ensuring that the Company's businesses are in no way involved in violation of human rights in such manner as use of child labor, etc. Moreover, the Company has supported surveillance for ensuring compliance with the requirements on human rights by allowing for sharing of opinions and whistleblowing channels via the human resources management department or the department to which the whistleblowers are directly reported.

#### Policy on Respect of Laws and Human Rights Principles

The Company makes it mandatory for directors, executives and staff to comply with the laws and human rights principles, regardless of race, color, gender, language, religion, social origin, property, birth, political opinion, or other status, as well as realizing their own rights, duties, and responsibilities towards society and others, based on the guidelines, as follows:

#### 01

The Company strictly complies with the laws and human rights principles and does not support any business which violates human rights.

#### 02

The Company treats
all staff equally, without
discrimination in terms of
employment, remuneration,
training, promotion,
termination or dismissal due
to gender, race, color,
religion, age, marital status,
pregnancy, political opinion,
or disability, etc.

#### 03

The Company allows all staff to enjoy equal rights for work pursuant to rules, regulations, notifications and orders of the Company.

#### Labor Practices

Staff are regarded as a key feature in moving the business forward with sustainability, and with its commitment to creating the path to happiness by starting from the "Source of Happiness" which signifies the Company's staff with an aim of ensuring that the Company's staff can deliver the quality services to make the service users smile happily.

The Company believes that quality staff are considered a crucial factor in leading the organization to the sustainable growth and success, the Company then formulates the clear policy on staff development in the pursuit of efficient and proper management of human resources, which shall be subject to review and development to ensure that such policy is consistent with the vision and current circumstances of the Company. In 2018, the Company reviewed and improved the policy on staff development in two aspects, as follows:



The Company has aimed to provide the expressway and metro system services with efficiency and continuous development, it has therefore fostered the conceptions and practices in various aspects, whether it be awareness of safety or awareness of accountability and responsibility, which are communicated via the operating process and with support of supervisors until attaining the organizational culture. This is to rest assured of all staff's practices and behavioral expressions in accordance with the Company's goals.



Staff are regarded as an invaluable resource which will support the Company to endlessly evolve and have business competitiveness, and as such, the Company has planned to develop competency of staff at all levels by establishing core competency, performance competency and managerial competency of each work position, performance evaluation

process and training provision as suitable for staff according to his/her work position, duties and responsibilities, to ensure staff's in-depth and extensive expertise, resulting in the Company's competency in moving its business forward to be the fully-integrated transportation service provider in Thailand and ASEAN.

Such personnel development policy will cover processes from recruitment of new staff sufficient for business expansion, development of knowledge and skills for both existing and new staff, adjustment of job descriptions as appropriate, including transfer of staff according to their knowledge and abilities, and promotion for career advancement.

The Company is committed to always taking care for its staff at all levels in all respects, including job description, safety, occupational health and work environment, along with training and development of skills in various fields, together with career opportunity and advancement, provision of fair consideration and welfare through the clearly specified criteria for career path, and fair and appropriate remuneration based on benchmark against the same in the same industry. Furthermore, the Company has promoted a participatory work environment and teamwork as well as organizing the workplace on the occupational safety and health basis, not to mention the fact that staff are also allowed to show off their abilities, etc.

Realizing the significance and development of staff as mentioned above satisfy staff to work for the Company to achieve the Company's goals, and with the Company's notion that staff are regarded as valuable resources and its strong belief in their inner potential in order to make staff proud and determined to perform works as well as improving their own performance on a continual basis.

# **Staff Remuneration**

In order to determine the appropriate and competitive remuneration to maintain the good and competent staff to work with the organization, the Company then participates in the survey of wages and remuneration to compare with labor market and other companies in the same sector as well as reviewing the starting salary for new graduates and base salary based on the value of work via the institute conducting wage survey on a regular basis, with the result that the Company's staff remuneration structure then meets standard, when compared the remuneration paid by the Company to that paid by the company group in the same business sector.

The Executive Board considers adjusting wages on a yearly basis by taking into account the Company's operational results through the Competency KPIs and its payment coverage ratio. Furthermore, the Company establishes a provident fund for long-term care of staff in order to motivate staff to work with the Company and to encourage staff's saving habits to secure adequate retirement savings for a quality retirement life. Staff may apply for provident fund membership, whereby staff pay savings at the rate of 5 to 15 percent of his/her salary according to his/her ability to save and the Company pays contributions at the rate of 5 to 15 percent according to such staff's service years and requirements of the fund. Staff who are fund members shall gain benefits arising from management in proportion to each staff's savings in the fund. The Company also provides group insurance benefits for staff so as to secure staff and staff family.

# **Staff Welfare**

In addition to welfare required by law, the Company also provides staff with additional and appropriate welfare, namely, medical treatment fee, life insurance, Provident Fund, uniform, entitlement to ordination leave, marriage leave, compassionate leave, maternity leave, and financial aid; and encourages the roles of the Staff Welfare Committee, beginning with the arrangement for the legitimate election as required by law in order to jointly provide advice and suggestions to the Company on welfare benefits for its staff as a whole and monitor to ensure that the Company's welfare benefits are properly provided to its staff, which lead to adjustment and improvement of the Company's welfare in various aspects as appropriate according to the changing economic and social circumstances.

#### the Company also provides staff with additional and appropriate welfare.



medical treatment fee



life insurance



Provident Fund



uniform



entitlement to



ordination leave



leave



compassionate leave



maternity leave



financial aid

# **Quality of Staff's Life**

The Company has encouraged the sphere of safety at work with a commitment to fostering and creating awareness of occupational safety and health to its staff in the Company. In addition, the Company has integrated the social and environmental responsibility activities in processes, for that reason, the Company not only gives priority to the safety of the service users, but also to all persons throughout the value chain of the Company. In this regard, the Company has established the safety and health policy as operating guideline which has been disseminated at www.bemplc.co.th. Furthermore, the Company has managed to ensure that the environment and workplaces are safe and health for life and assets of staff and the Company, whereby the Company has prepared manuals in various fields as guidance for proper management for each target group, i.e., manuals for quality and environment, appointment of the Safety, Occupational Health and Work Environment Committee, appointment of safety officer at the levels of executive and supervisor.

# Labor Relations

The Company sets out a policy to take care of its staff via the line management through the human resources unit with the duties to provide advice to, support supervisors and provide them with regular training on personnel management and understanding of the work rules and regulations of the Company. The Company also sets out the investigation procedures with clarity in case of any disciplinary misconduct by staff to ensure fairness and solutions to prevent repeated misconduct, including clear and rapid grievance procedures. Furthermore, the Company yearly organizes the activities to strengthen relationships with and benefit its staff, comprising merit-making and food offering to monks activities on the occasion of New Year Day and merit-making to celebrate the Company's anniversary, New Year's Eve activity, Blood Donation to Thai Red Cross Society activity, Songkran Day activity, workout activity, mindfulness mediation activity, health and nutrition activity. In addition to the Company's internal activities as mentioned above, the Company also encourages and supports budget for off-work activities by allowing staff who are interested in useful activities to form activity group in the form of various clubs, such as, sports club, photo club and music club. The sports club arranges for activities all year round, i.e., football match, walking-jogging for good health, as well as participation in walking-running for charity in association with the government sector on various occasions; internal sports activity so as to encourage staff to work out and then select the Company's athletes to participate in sports competition with external organizations to gain more experience and strengthen good intercompany relationships. The music club regularly arranges for recreational activities every year to promote staff to show their artistic and performance talents, to perform their shows in various events of the Company, and to spread happiness to the society, particularly to the underprivileged communities.



# Highlight of Employee Relations Activities 2018

#### "Let's Love Environment with BEM"

was an activity to instill awareness of environmental preservation which was regularly held by the Company every year, by taking a group of management and staff to jointly grow coral and take away trash to clean up the Toei Ngam Beach in Chonburi Province to raise awareness of environmental preservation and jointly restore the marine ecosystem.











#### "Blood Donation"

was an activity to donate blood as a part of the greatest giving. The Company, in association with The Thai Red Cross Society and Faculty of Medicine Vajira Hospital, Navamindradhiraj University, then organized three blood donation activities at the Si Rat - Outer Ring Road Expressway Control Center, with active participation of management, staff and residents living nearby.



#### "Thot Pha-pa Samakki Ceremony 2018":

The Company and CH. Karnchang Public Company Limited jointly hosted Thot Pha-pa Samakki Ceremony at Wat Kalayanamitr Varamahavihara, Bangkok, and at Wat Hongratanaram Rajawaravihara, Bangkok, to participate in donation for development of educational quality and as a scholarship to Phrapariyattidhamma School, and also, to renovate the temples, preserve and nurture the Buddhism.









#### "Thot Kathin Samakki Ceremony 2018":

The Company, in association with communities surrounding the expressway project route, the MRT route and the MRT passengers, together with a group of management and staff, hosted Thot Kathin Samakki Ceremony at Wat Paknam, Nonthaburi, to participate in donation for renovation of the hall of the Buddhist temple, as well as preserving and nurturing the Buddhism.







The Company realizes the country's drug problems which give rise to major impact on the economic and social stability, public order and morality, and then, in association with the Company's Welfare Committee, participated in the White Factory project (Drug Free Workplace Project) of the Department of Labor Protection and Welfare, by participating in activities in collaboration with external agencies, and cooperation for drug test of all the Company's staff. In such arrangements, the Company sets out a policy to confirm its commitment and practice, namely:

- 1. Giving priority to drug prevention and solution by educating its staff on the damage of drugs and organizing staff health check-up every year or on a specific occasion.
- 2. Supporting and promoting all staff to take a role and participate in the campaign for drug prevention and solution, and jointly monitor both inside and outside the Company for drug prevention in the Company.
- 3. Providing cooperation with the government agencies in respect of various measures for drug prevention and solution campaign.
- 4. Appointing the Welfare Committee to take responsibility for implementing the White Factory project (Drug Free Workplace Project) to meet the project's objectives in line with the drug prevention and solution policy in business premises.

In this regard, the Company authorized the Company's Welfare Committee to act as the ex officio "White Factory" Project (Drug Free Workplace Project) Committee to ensure the continued implementation, whereby the "White Factory" Project (Drug Free Workplace Project) Committee shall have duties and responsibilities as follows:



The Company received a Drug Free Workplace Certificate from the Department of Labor Protection and Welfare due to the Company's "Drug Management System in the Business Premises Ranking No. 1", from the total of 258 nominees, as a role model for other business premises in that the Company could encourage its staff to participate in anti-drug campaign in the business premises successfully with concrete results.



The Company designs its operating procedures on the basis of independent check and balance and adopts the SAP system to inspect every step of the operating procedures, including prevention of any potential unusual practices in the procedures.

The SAP system comprises sourcing and procurement, maintenance, inventory, accounting and finance modules, all of which are integrated into one system, to inspect every step of the operating procedures and cross-platform processing, including financial data tracking, which helps prevent corruption efficiently.



# Accident at Work

In 2018, the Company had two work-related accidents on the expressways, without causing any loss of staff, and no work-related accident in metro operations.







## Participation in Community and Social Development

# We are committed to caring about near and remote societies by making them filled with happy smiles forever "> happy smiles for





#### **Society and Community**

The Company has realized that it is one vital component in development of the related transportation systems, which is thus determined to establish a connection of the fullyintegrated transportation system to facilitate the people's travelling and help mitigate traffic problems in Bangkok and its vicinity. This is to upgrade the quality of life of the service users, whereby provision of safe, rapid and efficient services is always given priority to ensure delivery of services with modern transportation network. Due to the fact that nowadays, the convenient and efficient transportation systems are essential for an urban lifestyle, whether it be road or rail systems, all of which play a key role in integrating livelihoods of the people in the society from one side of the city to the other side. With its commitment to creating the "Path to Happiness for Better Travelling Mode", the Company is determined to bring smiles of happiness and safe journey to people and their families at all times because it is deemed that building enjoyable experience and good family relationships is another way to make people filled with the feeling of love, warmth, and friendships with each other, and to offer the good quality of life to the people through its business operations which have been always based on corporate social and environmental responsibility, as a practical guideline to which the Company has adhered in its business operations with sustainability.

Other than the corporate social responsibility policy in the pursuit of the path of safety and happiness, the Company also gives priority to education of youth with its aim of promoting outdoor learning experiences via various learning activities, together with distribution of scholarships to underprivileged children and youth as their cost for having sustainable career.

In 2018, the Company organized the scholarships to adjacent school project to distribute 40 scholarships to underprivileged students with good academic records and funds for development of nine schools adjacent to the Si Rat Expressway, the Udon Ratthaya Expressway, and the Si Rat - Outer Ring Road Expressway. Moreover, the Company granted scholarships to children of the Expressway Authority of Thailand's staff and children of the Expressway Police Station 2's police officers, which have performed works in collaboration with the Company. In addition, the Company regularly provided public interest assistance, alleviation of hardships from various disasters. The outstanding CSR activities were held by the Company as follows:

#### "Lankilaphat 2 Project"

The Company played a part in humbly fulfilling the royal wishes of His Majesty King Bhumibol Adulyadej The Great and Her Majesty Queen Sirikit The Queen Mother to improve the quality of life of the people which not only contributed to healthy body, but also healthy mind, by endowing a fund and joining the board of committee and the subcommittee of the Lankilaphat Project. There were pilot projects, i.e., Lankilaphat 1, located in Khlong Chan Housing Community, Bang Kapi District; and Lankilaphat 2, located under the expressway, Urupong Section, Ratchathewi District.











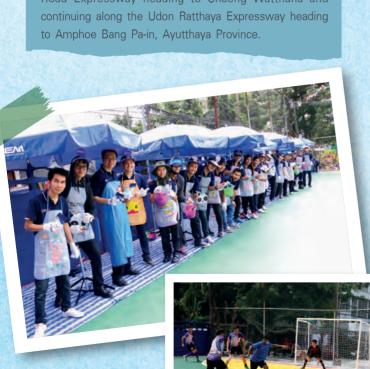
# "Scholarships to Adjacent Schools Project"

The Company organized the BEM Grants Scholarships to underprivileged students with good academic records and funds for development of schools adjacent to the Si Rat Expressway, the Udon Ratthaya Expressway and the Si Rat - Outer Ring Road Expressway activity, for the 11<sup>th</sup> year in a row, to raise morale of the youth in studying hard and grow up as a quality adult for the country's development in the future.



"BEM Giving Back to the Society by Opening the Free Service of the Connection of the Si Rat – Outer Ring Road Expressway (Heading to Chaeng Watthana)"

The Company constructed the Connection of the Si Rat - Outer Ring Road Expressway with the Si Rat Expressway Heading to Chaeng Watthana, as an additional construction and giving back to the society by way of offering the service of such Connection for free, with an aim of expanding the expressway network from the western side to the northern side of Bangkok and making it more convenient for the service users of the Si Rat - Outer Ring Road Expressway heading to Chaeng Watthana and continuing along the Udon Ratthaya Expressway heading to Amphoe Bang Pa-in, Ayutthaya Province.



#### "BEM Development the Sport Field"

ทามพิเศษศรีรัช

The Company organized an activity for improving the quality of social life and enhancing sport skills of kids and youth residing nearby the MRT routes and the Si Rat - Outer Ring Road Expressway. The Company, in association with Soi Suk San 1 Community, Bang Sue District, Bangkok, improved and developed the sport field in the community as well as providing it with sport equipment and also held a friendly futsal match between the Company's staff and youth in Suk San 1 Community. This sport field would be available as public space for allowing youth in the community and youth nearby to play sports and exercise to improve mental and physical health of people.



The Company constructed the u-turn bridge for bicycles on Thanon Liap Thang Rotfai (near the intersection of Soi Chaiyaphruek) to facilitate and shorten the travelling time of the people residing adjacent to Thanon Liap Thang Rotfai which is along the Si Rat - Outer Ring Road Expressway.



#### "Happy Smile Happy the Elderly"

The Company, in collaboration with Duang Prateep Foundation, organized the activity "Happy Smile Happy the Elderly" by bathing rite for Buddha images and pouring water on the hands of the elderly for blessing, as well as delivering a lecture on safety of use the MRT system for the elderly, the luncheon, and ending with the recreational activities to bring the elderly happiness, for promoting the family institution. There were executives and staff actively participating in this activity.



#### "The Passport Office and the Legalization Office have been opened for service at the MRT Khlong Toei Station"

The Company granted a certain area within the MRT Khlong Toei Station to the Department of Consular Affairs, Ministry of Foreign Affairs, for establishing the Passport Office and the Legalization Office, as giving back to the society and as another channel to serve the people.



# Environmental Management



As for the environmental management and environmental impact reduction (More Quality and Less Impact), the Company, in its capacity as the expressway and metro service provider, has realized the business operations based on sustainable development in three aspects, namely, environment, emphasizing prevention and control of pollution; society, taking care of the Source of Happiness to ensure that they have the improved quality of life, with the readiness to transfer value to the society nearby and as a whole; and good corporate governance, by adhering to the code of ethics, integrity and transparency in the business operations as well as being committed to development of the quality of services based on corporate social responsibility, the Company therefore formulates the environmental policy for internal dissemination to the management and staff, and for external dissemination via www.bemplc.co.th.

Furthermore, with the commitment to the eco-friendly business operations to ensure the good quality of life to its staff, service users, including societies along the expressway and the MRT routes, together with stakeholders of all groups, the Company has improved and reviewed its internal procedures to conform to the environmental requirements. The guidelines followed by the Company for environmental management are as follows:



To give priority to pollution prevention and control by managing and maintaining the
expressways and the MRT to meet international standards and keeping in mind the
environmental impact on service users, staff, and communities.



 To instill and encourage our staff with an awareness of efficient use of energy and natural resources.



To comply with the environment-related laws and regulations.



To review the purposes and goals for continued improvement of the environmental management system.



 To communicate the environmental policy to the public and all parties concerned via the Company's website, Annual Report, bulletin boards, and written notices to contractors for ensuring their practices in the same direction.

# Expressway Business

The expressway service operation was commenced when the Company has obtained concession from the government to conduct construction. The Company is well aware that as soon as construction starts, it would have an impact on biodiversity, environment in terms of dust, noise and other pollution, or even completion of construction and it is ready for service opening to the public, arrangements relevant to maintenance, repair, together with volume of vehicles using the expressways absolutely have environmental impact. For that reason, the Company always gives priority to prevention and control of pollution arising from such impact in an earnest manner, by establishing the environmental policy which emphasizes the significance of pollution prevention and control, as well as promoting, educating, giving staff and stakeholders to understand about environmental management on a continuous and serious manner.

It starts from the construction of the expressways, the Company has complied with the pollution prevention measures in accordance with the standard regulations of the National Environment Committee and other relevant laws, which form an integral part of the Agreements. In this regard, the Company has implemented the measures and procedures as appropriate for the construction carried out in the urban areas with high populations. The Company has employed the state-of-the-art Segmental Box Girder construction technique, which is internationally acceptable and meets the AASHTO (American Association of State Highway Transportation Officials) standards, thereby affecting the at-grade traffic at the least possible extent; helping reduce dust and noise pollution during construction, construction then was completed according to plan, without protest from society and communities; as a result, the expressways are safe, meets standards and satisfies people's transportation needs efficiently; as well as helping reduce environmental impact from the Company's business operations. Furthermore, the Company had no records of committing any environment-related offenses.

The Company continued to maintain the ISO 14001 Environmental Management System, by monitoring possible environmental issues, as well as optimizing the use of natural resources through its continued energy management measures. The Company obtained certification of the ISO 9001: 2015 Quality Management System and the ISO 14001: 2015 Environmental Management System from SGS (Thailand) Limited for the expressway business.



The Company has installed lighting at columns of the bridge crossing the Chao Phraya River, the Si Rat - Outer Ring Road Expressway, for convenience in driving boats pass under the bridge and helping minimize possible accidents.

In 2018, the Company handled the environmental matters by changing to more energy-efficient lamps on the expressways and around toll plazas, as follows:

Replacement of the existing lamps in the saving up to Si Rat - Outer Ring Road **Expressway Control** 45% **Center Building with LED** lamps, thereby saving up to 45 percent of energy. saving up to Replacement of the existing lamps in the toll 45% plazas with LED lamps, thereby saving up to 45 percent of energy.

The existing high pressure floodlight lamps were replaced by LED lamps in the merged area on the Udon Ratthaya Expressway, thereby saving up to 59 percent of energy by providing the brightness greater than the existing lamps, as well as minimizing the dispersed light.

The project to install solar cells on Rama VII Bridge Toll Plaza on the Si Rat Expressway - Outer Ring Road Expressway, thereby saving up to 20 percent of energy from the Metropolitan Electricity Authority.







#### **Noise Pollution Management**

The Company conducted noise surveys at the areas adjacent to the expressways and the toll plazas, with the survey results that noise level in most of the areas stayed at standard level. In the area with substandard noise level, the Company implemented measures to carry out inspection, monitoring, and assessment to identify causes for seeking guidelines for improvement and remedy as appropriate.

#### **Improvement of Easy Pass Lanes**



 The Company improved 72 Easy Pass lanes on the Si Rat Expressway, totaling 32 toll plazas, as Fast Lanes to accommodate more rapid passage, which helps save time waiting in a queue and reduce traffic congestion in front of the toll booths, as well as minimizing air pollution.

# Rail Business

The Company has continued doing the environment-related activities in accordance with ISO 14000 standards, by carrying out pollution prevention and control, mitigation of environmental impact and sustainable use of resources on the basis of three aspects of sustainable development, namely, environment, society, and good corporate governance. In addition, the Company reported its operational results in line with the index on the operational results regarding energy and environmental conservation in accordance with the guidelines of the Energy Conservation Promotion Act (No. 2) B.E. 2550 (2007), the ministerial regulations on standards, criteria and procedures for energy management in designated factories and buildings B.E. 2552 (2009), as well as operating under the energy management manual for sustainable development.

Regarding the past energy and environmental conservation, the Company has strictly complied with the relevant laws governing energy conservation and environment, and also adopted the Energy Management Systems - Requirements with Guidance for Use or ISO 50001 and the International Environmental Management System (ISO 14001) since the opening of its MRT service, as well as simultaneously organizing activities for participation by and listening to related parties' opinions to ensure proper understanding which leads to sustainable development. It was for this reason that the Company received the standard management certifications as follows:



- o ISO 9001:2015 Quality Management System.
- o ISO 14001:2015 Environmental Management System (certified by TUV NORD (Thailand) Limited).
- o OHSAS 18001:2007 and TIS 18001:2011 Occupational Health and Safety Management Systems.
- o Safety Management System from Ricardo Rail Limited.

In addition, the Company has been paying attention to the potential environmental impact from the MRT services on the environment, quality of life, and lives of people and nearby communities, by strictly monitoring, preventing and mitigating the environmental impact under the Environmental Impact Mitigation Measures and Monitoring Program (EMP) during the implementation of the MRT projects in service, namely, the M.R.T. Chaloem Ratchamongkhon Line, the M.R.T. Chalong Ratchadham Line and the MRT Blue Line Extension, Bang Sue - Tao Poon Section, as well as submitting reports on its compliance with such measures to the Office of Natural Resources and Environmental Policy and Planning (ONEP) for consideration twice a year. The environmental quality was followed up and monitored in key environmental issues as follows:

01



**Air Quality:** The results of air quality measurement in the atmosphere around the projects showed that the total suspended particulate (TSP), particulate matter (PM10) and carbon monoxide (CO), nitrogen dioxide (NO2), and the total hydrocarbons (THC) **met the standard requirements.** 

02



Air Quality in MRT Stations and Trains: The results of air quality measurement in the MRT stations and trains, during both peak and off-peak hours, showed that the total bacterial and fungal volume, ventilation rate, temperature, and relative humidity met the standard requirements.

03



**General Noise Level:** The results of general noise level measurement in the MRT stations, trains and depot showed that the average noise did not exceed 70 dB(A), with the maximum level not exceeding 115 dB(A), which met the standard requirements.

04



Vibration Level: The results of vibration level measurement met the standard requirements.

05



**Effluent Quality:** The results of effluent quality measurement in stations, depot and administration building **met the standard requirements.** The wastewater treatment system could work efficiently according to its design.

06

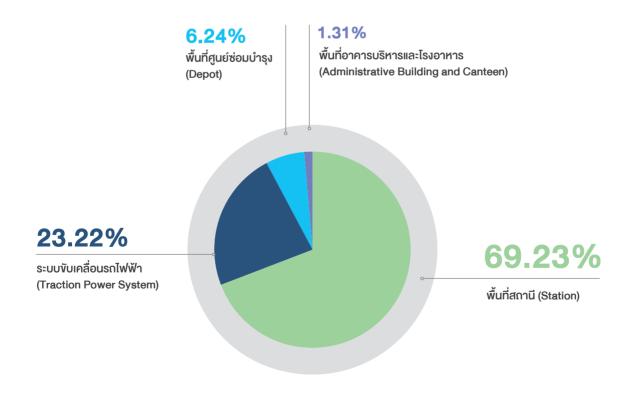


Waste Management: The results of segregation, collection and transport of waste for disposal were found to be made properly in accordance with applicable laws.

In addition to the environmental quality measurements, maintenance vehicles used in the depot area have met the EURO IV Standard, an emission standard for vehicles, which provides assurance that the use of such maintenance vehicles and the maintenance operations will in no way give rise to pollution at a hazardous level.

In respect of electricity use, the Company's electricity use is at high rate by using an average electricity volume of approximately eight million units per month, meaning that there must be carbon dioxide (CO2) emissions averaging 4,000 tons per month, which certainly gives rise to an environmental impact. Therefore, we have to be committed to continuing the environment-related activities in accordance with ISO 14001 standards, by implementing pollution prevention and control measures, mitigation environmental impact and sustainable use of resources on the basis of three aspects of sustainable development, namely, society, economy, and environment. As a result, energy management measures are laid down every year, whereby the Company has continued to conduct energy management to ensure efficiency, and then, areas or categories of use are proportionally separated to ensure efficient control or reduction of energy use. In 2018, the electricity volume used by the Company can be proportioned as follows:

#### **Energy Use According to Category of Use**



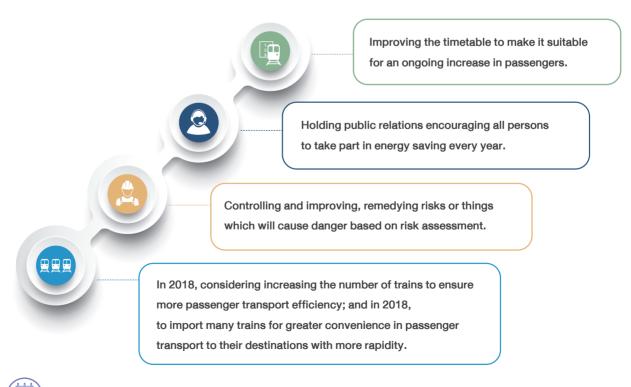
As for the management measures for energy saving in 2018 and for reduction of carbon dioxide (CO2) emissions, the Company has implemented measures to control and change technically to more energy efficient lamps within the MRT stations and Phra Ram 9 Depot.





Measure to control opening and close of the lighting system, seasonal air-conditioning system to ensure use of energy according to each season; ensure efficient use of energy in respect of the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line) and the M.R.T. Chalong Ratchadham Line (MRT Purple Line).

To facilitate the service provision to passengers which are continuously increasing. The key mission of the Company is that the Company shall provide services of the metro system with safety, convenience, rapidity, reliability, and punctuality. In order to alleviate traffic problems, preserve the environment and improve people's quality of life. The Company has therefore improved management at all times, as follows:



With regard to commercial development business, the Company has also paid attention to the environmental impact in retail shops in the MRT system in order to prevent impact on environment, quality of life, and livelihood of people and communities.

# Energy Conservation

The Company has used the monitoring system of volume of energy use to ensure control or reduction of energy use with efficiency, by establishing an Energy Conservation Committee which has its set target and has been authorized to follow up electricity use on a monthly basis and make a summary report to the Management. The results of energy use in 2018 can be indicated below:

#### **Expressway Business**

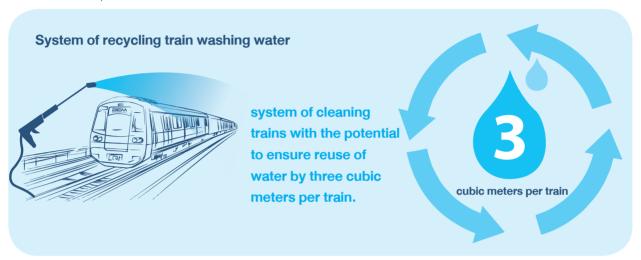
Category	Measurement Unit	Total Target Use in 2018	Total Actual Use in 2018	Results of Comparison of Actual Use to Target Use
Electricity	kWh.	1,379,000	1,296,000	Actual use less than the target by 83,000 kWh., representing 6.02%
Tap water	cubic meter	11,246	11,230	Actual use less than the target by 16 cubic meters, representing 0.14%
Paper	sheet	1,995,600	1,989,300	Actual use less than the target by 6,300 sheets, representing 0.32%

#### **Rail Business**

Category	Measurement Unit	Total Target Use in 2018	Total Actual Use in 2018	Results of Comparison of Actual Use to Target Use
Electricity	kWh.	107,351,760	103,249,000	Actual use less than the target by 4,102,760 kWh., representing 3.97%
Tap water	cubic meter	-	369,422	<ul> <li>Actual use by 367,629 cubic meters in 2017</li> <li>Actual use by 369,422 cubic meters in 2018</li> <li>Compared to that in 2017, an increase in use by 1,793 cubic meters, representing 0.49%</li> </ul>
Paper	sheet	-	2,128,461	<ul> <li>Actual use by 2,003,578 sheets in 2017</li> <li>Actual use by 2,128,461 sheets in 2019</li> <li>Compared to that in 2017, an increase in use by 124,883 sheets, representing 6.23%</li> </ul>

# Reuse of Resources for Efficiency

Water is one of resources which the Company has given priority to and used efficiently. The Company chose to install the electric train washing and cleaning systems which make possible recycling of water, that is, such systems are capable of ensuring reuse of water by three cubic meters per train. The Company has operated such washing and cleaning systems for more than 14 years.





#### Reduction of Greenhouse Gas and Carbon Dioxide Emissions

การเดินทาง ด้วยรถไฟฟ้า MRT ช่วยลดปริมาณการปล่อย ก๊าซเรือนกระจกได้



6.822

tons per year

The MRT system is committed to using clean and green energy. Implementation of the MRT system's energy saving project can help reduce carbon dioxide emissions, which cause the greenhouse effect, by 6,822 tons per year  $(12,183,000 \times 0.56/1,000 = 6,822$  tons per year) as compared to the base year 2006.

การใช้ Easy Pass ชำระค่าผ่านทาง ช่วยลดปริมาณการปล่อย ก๊าซคาร์บอนไดออกไซด์ได้



grams / kilometer / car

In respect of using Easy Pass for toll payment, it would help reduce carbon dioxide emissions in a manner of enabling motorists to drive pass through the gates smoothly without stopping cars to pay tolls, thereby reducing carbon dioxide (CO<sub>2</sub>) emissions by 155 grams / kilometer / car, as well as enhancing the quality of life of officers performing duty on the expressways.

#### Remark:

Greenhouse gas refers to any gaseous compound of the Earth's atmosphere which surrounds the Earth in a manner similar to a greenhouse. These gases are essential for keeping the temperature of the Earth stable. They may be divided into natural and industrial greenhouse gases, with the key components comprising Carbon dioxide ( $CO_2$ ), Methane ( $CH_4$ ), Nitrous oxide ( $N_2O$ ), CFC (CFCs), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur hexafluoride ( $SF_e$ ).

The greenhouse effect is the phenomenon which the Earth is surrounded by greenhouse gases as compounds of the Earth's atmosphere, whereby the infrared radiation will be absorbed by these gases in the daytime and will be gradually remitted out at nighttime, as a result, the temperature in the Earth's atmosphere is kept constant without sudden change. If the Earth's atmosphere has not contained the greenhouse gases, the Earth's temperature will be scorching hot by day and bitterly cold by night.





#### **Innovation Promotion Policy**

The Company realizes and strives for promotion and development of creating the innovative organization to add value to the businesses according to the ongoing changing circumstances by taking into account internal and external stakeholders under the policy, as follows:

#### 01

To encourage staff to participate in improvement of the work process to ensure the highest efficiency in line with the corporate mission, by using innovations as suitable with current circumstances:

### 02

To promote use of equipment, tools, devices, and technology in work operations, as well as using financial tools as appropriate;

#### 03

To support and promote innovative culture in the organization for taking care of the stakeholders in a continuous manner.

The Company has appointed a work group to formulate strategies and innovations to ensure the greater efficiency in management of various aspects, for instance, project analysis, engineering technique, finance, marketing, and in the context of contract, with the duty to brainstorm ideas and propose strategic and innovative guidelines for developing efficiency and generating more income for the Company, as well as conducting feasibility studies under the proposed guidelines, together with alternatives as it deems appropriate for the sake of economic benefits and improving a good image of the Company; to propose work plans to the Managing Directors for assigning agencies in charge to carry out such plans, follow up and conclude, assess, report the results to the Managing Directors.



#### **Safety Innovation**

Safety is at the heart of the Company's services, therefore, the Company gives importance to continued support and development of safety innovation, by setting up a dedicated unit responsible for research and development (R&D) with the main duty to study, analyze, and find solutions or equipment which will help prevent possible accidents and mitigate damage.

Expressway Business: The Company has an engineering analysis agency comprising knowledgeable and skilled personnel in traffic engineering and safety on the expressways to conduct studies on impacts from various factors. A traffic simulation was made for study of the suitability in the improvement of physical characteristics at the front areas of toll plazas, as well as inspection of road safety; analysis of risk areas on the expressways; study of features and patterns in the installation of safety equipment, in order to improve the expressways to ensure the maximum safety for the expressway users.



Rail Business: The Company has not only conducted study and development of safety innovation, but also gives priority to travelling facilitation by providing additional facilities to the passengers of the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line) and the M.R.T. Chalong Ratchadham Line (MRT Purple Line) by way of adding Card

Reader Device (CRD) which is capable of working like Automatic Fare Collection Gate, at both Entry Gates and Exit Gates, to increase entrance and exit gates of the MRT system during peak hours at the crowded stations, such as, Sukhumvit Station, Chatuchak Park Station, Silom Station, etc.



Improvement and installation of safety equipment of the Udon Ratthaya Expressway by improving anti-skid surfacing, profile pavement marking, optical speed bars, shoulder rumble strips, in order to help prevent accidents from drowsy and fast driving.



The feasibility study for improvement of the on- and off-ramps of the expressways serving as another measure of the Company to facilitate the traveling and to continually maintain the quality of the expressways in terms of engineering safety to meet international standards.



Improvement of the safety on the expressways by inspecting and assessing the safety of the gore areas and installing safety equipment, e.g., crash cushions, cushion tanks, flexible guide posts, red-colored cold plastic road paint to alert for high accident risk areas.



Implementation of the project to enhance the efficiency of the automatic toll collection lanes, the Company installed the second antennas in Easy Pass lanes to suit the convenience of the Easy Pass users in the event that a barrier gate is not opened despite their remaining credit adequate for passing through, in that case, the system will have the barrier gate automatically opened without waiting for staff's opening, which can make the motorists' passage more rapidly, save time waiting in a queue and reduce traffic congestion in front of the toll plazas, as well as minimizing air pollution.









#### Innovations to Grow the Company's Business Operations

The Company developed innovations by using Digital Technology and LEAN process to support its business-related activities, as follows:





#### Traffic volume and toll revenue data system:

the Company developed this system to initially help analyze data on traffic volume and toll revenue through Web Application which makes it accessible from anywhere, anytime, on any devices, as well as increasing traffic volume data collection system on other routes and reporting the output data in the form of Executive Summary.

#### **Knowledge Management System (KM):**

It is the centralized system in collecting bodies of knowledge of the Company on Web Application to ensure that the Company has knowledge management with efficiency and effectiveness, continuation, in the same direction throughout the organization. Starting from identifying key bodies of knowledge, creating bodies of knowledge for storage in the knowledge base, as an essential process in efficiently applying the knowledge management system of the organization so that the knowledge management of the organization is made in a holistic manner and is a part in personnel development. As a result, the organization would be driven by the knowledge and developed to become the learning organization.



#### **Computerize Management System:**

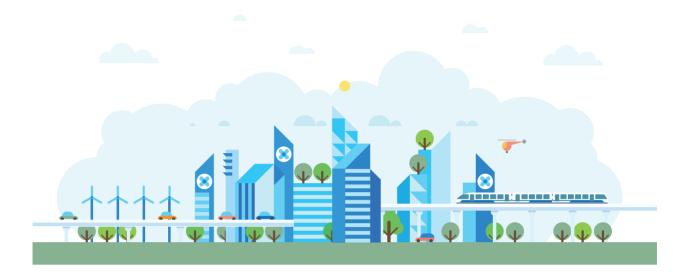
The Company has designed and developed the Computerize Management System (CMMS) to ensure that works can be performed in a paperless manner, which is accessible anywhere, anytime via tablets or smartphones. The results of performance can be immediately recorded to the database. This is not only to help reduce paperwork and paper-based storage, but also to help enhance work efficiency with greater rapidity.



Moreover, the Company has developed Application Bangkok MRT to accommodate the passengers who have used iOS and Android smartphones to enable them to access to journey information more easily, conveniently and actively, with its modern and easy-to-use design to satisfy all needs of the passengers for journey planning with the MRT system, both the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line) and the M.R.T. Chalong Ratchadham Line (MRT Purple Line). The results of searched information can be displayed in both Thai and English. It provides necessary information on journey and services, for example, MRT route map, information on intersections with other mass rapid transit systems, all station exits, and station facilities, landmarks around the MRT route, fare calculation and journey time, park & ride facilities and service rates, including information on activities and so forth.



# Future Action Plan



In addition to innovative development in terms of safety which is deemed at the heart of the Company's services, convenient and rapid services are also prioritized by the Company. The Company has planned to develop the expressway toll and MRT fare collection services to make it more modern in order to meet customers' requirements nowadays, by way of development of the electronic payment system so that the expressway users and the MRT passengers are not required to pay in cash.

In this regard, the Company has signed the Memorandum of Agreement with True Money Co., Ltd. by jointly carrying out study and development of the electronic payment, for instance, purchasing or topping MRT cards at points of sale, online top-up, and mobile payment, etc.

The Company has planned to modernize the fare collection system of the MRT service to satisfy the passengers' demand at present.



# About this Report

#### **About this Report**

2018 is the first year which Bangkok Expressway and Metro Public Company Limited has prepared the Sustainable Development Report which presents the operational results in economic, social, environmental aspects, and other issues which are significant to the organization, including stakeholders of all sectors, as well as presenting the strategic policies and business guidelines in pursuit of sustainability. This Report has been prepared by the Company in accordance with the guidelines of Core Report of Global Reporting Initiative Standard (GRI Standard).

#### **Reporting Scope**

This Report has contained information on operational results from January 1, 2018 to December 31, 2018 which have covered Bangkok Expressway and Metro Public Company Limited and its subsidiaries.





## GRI Indicators

#### Global Reporting Initiative Standard (GRI Standard)

GRI Standard	Disclosure	Page number / URL				
General Disclosures 2016						
GRI 102: General Dis	GRI 102: General Disclosures					
Organizational Profil	e					
102-1	Name of the organization	6-9, 12				
102-2	Activities, brands, products, and services	4, 6-9				
102-3	Location of offices	12				
102-4	Location of operations	6, 9				
102-5	Ownership and legal form	6-7, 11				
102-6	Markets served	6-9				
102-7	Scale of the organization	45-47				
102-8	Information on employees and other workers	47				
102-9	Supply chain	31-33				
102-11	Precautionary Principle or approach	25				
102-12	External initiatives	33-34, 60-62, 64				
102-13	Membership of associations	5				
Strategy						
102-14	Statement from senior decision-maker	2-3				
Ethics and Integrity						
102-16	Values, principles, standards, and norms of behavior	20-21, 24				
Ethics and Integrity						
102-18	Governance structure	10 See further details in Annual Report 2018: "Management Structure" pages 107-110				
Stakeholder Engagement						
102-40	List of stakeholder groups	15				
102-42	Identifying and selecting stakeholders	15				
102-43	Approach to stakeholder engagement	16-19				
102-44	Key topics and concerns raised	16-19				

GRI Standard	Disclosure	Page number / URL
Reporting Practice		
102-45	Entities included in the consolidated financial statements	73
102-46	Defining report content and topic boundaries	73
102-47	List of material topics	14
102-48	Restatements of information	None
102-49	Changes in reporting	None
102-50	Reporting period	73
102-51	Date of most recent report	73
102-52	Reporting cycle	73
102-53	Contact point for questions regarding the report	12
102-55	GRI content index	74-76
Material Topics		
Corporate Governan	ce	
GRI 103: Manageme	nt Approach	
103-2	The management approach and its components	22-23
103-3	Evaluation of the management approach	22-23
GRI 205: Anti-Corrup	tion	
205-2	Communication and training about anti-corruption policies and procedures	24
Business Ethic		
GRI 103: Manageme	nt Approach	
103-2	The management approach and its components	22-23
Risk Management		
GRI 103: Manageme	nt Approach	
103-2	The management approach and its components	25-30
103-3	Evaluation of the management approach	25-30
Customer Relations	Management	
GRI 103: Manageme	nt Approach	
103-2	The management approach and its components	36-41
103-3	Evaluation of the management approach	36-41
Supply Chain Manag	ement	
GRI 103: Manageme	nt Approach	
103-2	The management approach and its components	31-33
103-3	Evaluation of the management approach	31-33
Product and Service	Responsibility	
GRI 103: Manageme	nt Approach	
103-2	The management approach and its components	35

GRI Standard	Disclosure	Page number / URL						
Human Capital Development								
GRI 103: Management Approach								
103-2	The management approach and its components	42-47, 49-51						
103-3	Evaluation of the management approach	49-51						
GRI 401: Employme	GRI 401: Employment							
401-1	New employee hires and employee turnover	45						
401-3	Parental leave	45						
GRI 403: Occupation	nal Health and Safety							
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	45, 55						
GRI 404: Training a	nd Education							
404-1	Average hours of training per year per employee	45						
404-2	Programs for upgrading employee skills and transition assistance programs	42-44, 68, 70-71						
Human Rights								
GRI 103: Manageme	ent Approach							
103-2	The management approach and its components	48						
GRI 405: Diversity a	nd Equal Opportunity							
405-1	Diversity of governance bodies and employees	46-47						
Community Involve	ment							
GRI 103: Manageme	ent Approach							
103-2	The management approach and its components	56						
GRI 413: Local Com	munities							
413-1	Operations with local community engagement, impact assessments, and development programs	57-59						
Environmental Man	agement							
GRI 103: Manageme	ent Approach							
103-1	Explanation of the material topic and its boundary	60						
103-2	The management approach and its components	60-67						
103-3	Evaluation of the management approach	61, 64-67						
GRI 302: Energy								
302-1	Energy consumption within the organization	64, 66						
302-2	Energy consumption outside of the organization	67						
302-3	Energy intensity	64, 66						
302-4	Reduction of energy consumption	62, 65-67						
GRI 303: Water								
303-3	Recycled and reused water	67						





#### **Bangkok Expressway and Metro Public Company Limited**

#### **Head Office**

587 Sutthisarn Road, Ratchadaphisek, Din Daeng, Bangkok 10400 Thailand.

#### **Branch Office 1 (Expressway Business)**

238/7 Asoke-Din Daeng Road, Bang Kapi, Huai Khwang, Bangkok 10310 Thailand.
Phone: 66 (0) 2641 4611 Fax: 66 (0) 2641 4610

Branch Office 2 (Metro Business)
189 Rama IX Road, Huai Khwang, Bangkok 10310 Thailand.
Phone: 66 (0) 2354 2000 Fax: 66 (0) 2354 2020

www.bemplc.co.th

Preserving natural environment, this book is printed on eco paper





Scan for reading
Sustainable Development Report 2018