



3. Driving Business for Sustainability

3.1 Sustainability Management Policy and Targets

In 2022, the Company continued to strive for sustainable development to drive the organization alongside the rapid changes in the global context based on sustainable development. The Company still emphasized on driving business under Good Corporate Governance, Code of Conduct (CoC), and Anti-Corruption Policy by integrating development principles and sustainability goals into business strategies. The UN's Sustainable Development Goals (SDGs) are implemented as guidelines to set goals for sustainable business operations. International Organization for Standardization (ISO) is applied to drive concrete actions throughout the value chain considering the impact on stakeholders, society and the environment. This makes sustainability development continually developed in all dimensions. The success of operations in 2022 can be reflected from the fact that the Company was selected to be on the Stock Exchange of Thailand's Sustainable Stock List in the first year after being listed on the Stock Exchange of Thailand.

The Company has a clear sustainability development strategy under the 2022 Business Sustainability Plan. The Company has set management goals for the progress of the Company by setting key performance indicators (KPIs) in line with the visions and mission of the Company. Policies and operational goals in each dimension are as follows:

1) Environment refers to business operations that go hand in hand with environmental conservation, which is a concerned global issue in driving global warming reduction and preventing climate change such as pollution prevention, greenhouse gas reduction, and efficient use of resources

2) Social refers to business operations that go hand in hand with service quality, facilitation, speed, and safety, occupational health, relations with communities and stakeholders, and human rights and equality.

3) Governance or Economic corporate governance for stable returns with transparency and a mechanism for checks and balances strictly operated under rules, regulations, and various restrictions, as well as being prepared for investments in business expansion by participating in the bidding of PPP projects, including building effective personnel.

In 2022, the Company reviewed and announced the implementation of the Corporate Governance Policy. This is an integration of Good Corporate Governance Policy, Code of Conduct (CoC), and Anti-Corruption Policy with an intention to build confidence among shareholders, investors, and all groups of stakeholders in building towards business growth and sustainability in the future, covering economic, social, and environmental dimensions. This has been announced to all employees as guidelines for performing duties with responsibility, transparency, honesty, and ethics, including publishing the Corporate Governance Policy on the website www.tollway.co.th for all groups of stakeholders to have access and acknowledge the practice guidelines and the Company's business operations under the principles of good corporate governance.



3.2 Impact Management to Stakeholders in the Business Value Chain

3.2.1 Business Value Chain

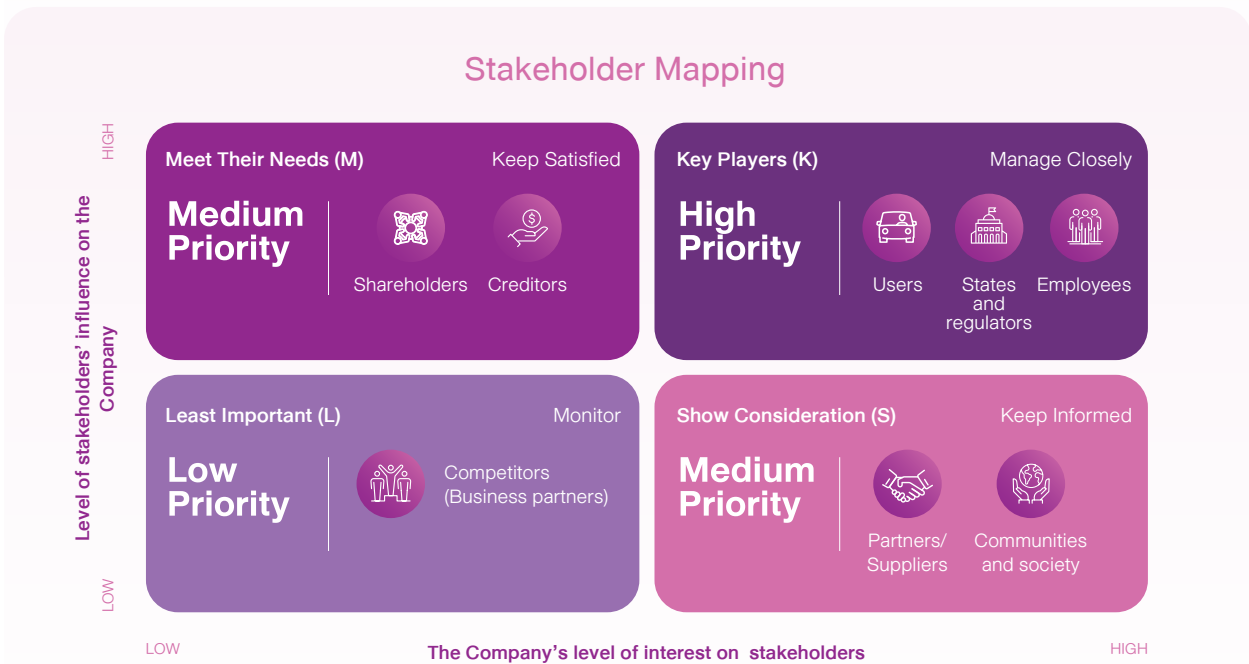
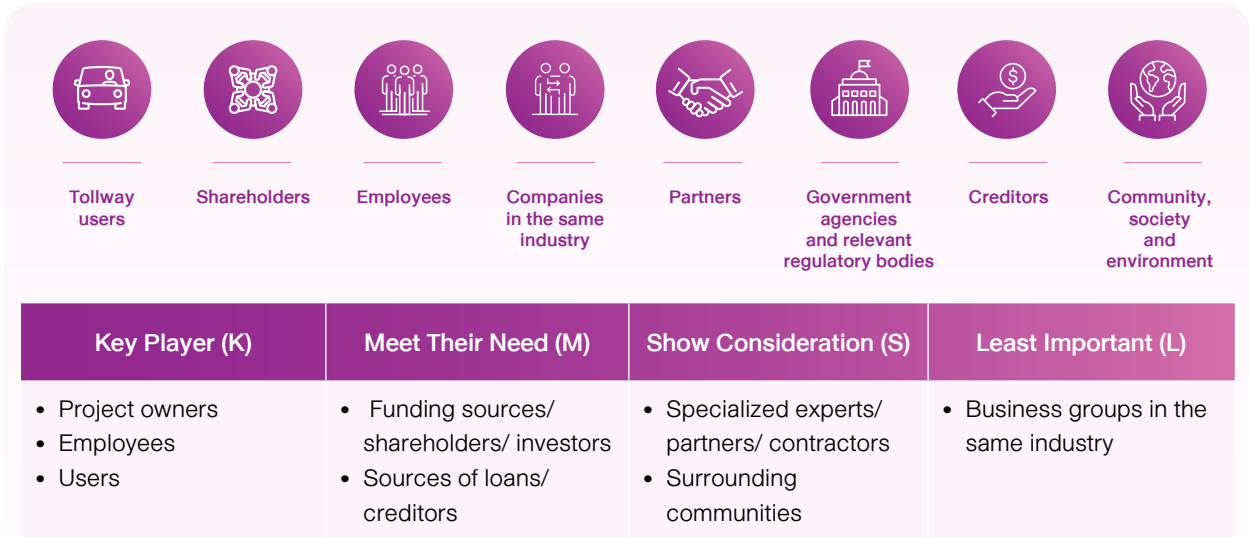
In order to create a sustainable business plan, a value chain analysis is required in order to analyze the organization's activities from start to finish. The information is used for assessing stakeholders and risks in each activity or deliver value to that activity to achieve sustainability. The Company's activities, which are the concessionaire for the concession tollway service, have a value chain from starting to finishing activities, as follows:





3.2.2 Stakeholder Analysis from the Business Value Chain

As for stakeholder groups that the organization must consider to organize activities or projects that are appropriate and consistent with the needs and expectations to deliver confidence and sustainability to all groups of stakeholders. The Company analyzed and divided stakeholders into 8 groups/4 levels of importance as follows:



Stakeholder groups that are important to the business consist of 3 groups:

1. Users
2. Governing agency is the Department of Highways
3. Employees


3.2.3 Stakeholder Satisfaction Survey and Management Guidelines

In 2022, the Company hired the National Productivity Institute to be its consultant in conducting satisfaction surveys, needs/expectations of stakeholders to determine stakeholder participation, which is important in driving the organization towards sustainability. The Company has studied the needs, expectations, and concerns of stakeholders in each group. The Company has set an action plan according to the 2022 Sustainability Business Plan, including guidelines for continuing operations in the 2023 – 2027 Sustainability Business Plan, which can be summarized as follows:



Stakeholders	Needs / Expectations	Participation Management Guidelines and Strategic projects responsive to stakeholders
<p>States and other relevant regulatory agencies</p> 	<ul style="list-style-type: none"> • Strict compliance with relevant laws • Support government projects that are beneficial to society • Fair and transparent business operations • Operations in compliance with the concession contract • Sufficient and timely disclosure of information 	<ul style="list-style-type: none"> • Participate or support activities of government agencies • Implement and comply with government policies such as safety measures to control the spread of COVID-19 • Meet, consult, and coordinate for good relationship with the public sector • Report of performance • Study the M-Flow project • Traffic Management Development • Modernization of maintenance work • Complaint management
<p>Shareholder</p> 	<ul style="list-style-type: none"> • Provide a tangible and continuous growth on return of investment • Develop potential to create business growth • Good performance, stock price and dividend at a high level • Continuous business expansion • Transparency in business operations and good corporate governance of the Company • Risk management, joint investment and development • Innovation to increase efficiency of the Company's operations • New business investments • Stability and availability of service • Opportunity for shareholders to have equal access to information • Public relations for services/projects to build confidence in the business • Effective access to information and public relations 	<ul style="list-style-type: none"> • Annual General Meeting of Shareholders • Company's website (under "Investor Relations") • Annual Report • Opportunity Day • Quarterly financial reports • Answering investor questions by phone and email • Communicate business directions and strategies covering economic, social and environmental dimensions, as well as building confidence in earning income • Open to opinions with transparency and implementing the resolutions of the shareholders' meeting • Communicate and disclose qualifications and charter of the Executive Committee for s takeholders to be informed through various channels



Stakeholders	Needs / Expectations	Participation Management Guidelines and Strategic projects responsive to stakeholders
<p>Employee</p> 	<ul style="list-style-type: none"> • Career advancement • Fair remuneration • Potential development • Health care and safety • Work-life balance • Proper welfare 	<ul style="list-style-type: none"> • Internal meetings • Online meetings and communicating • Communication via Line Application • Annual performance assessment • Promotion of potential, skills, knowledge development • Welfare committee meeting • Setting criteria for consideration of remuneration, welfare, and benefits as required by the laws or more • Determining and implementing policies and practices on health care and safety • Personnel engagement assessment
<p>Tollway user</p> 	<ul style="list-style-type: none"> • Value of price • Service efficiency • Convenience, speed and safety on the route • Discounts and promotions, innovation to increase efficiency of the Company's operations 	<ul style="list-style-type: none"> • Company website improvement • Annual report • Complaint channels via Call Center, LineOA, Facebook • Activities to thank users • Tollway user satisfaction survey • Listening through satisfaction surveys via social media, call center, complaint channels, and relationship-building activities, etc. Analyze customer voice data to find ways to build good relationships and create memorable experience for service users. An example of relationship-building activity with customers/users is Engagement rewards program campaign with tollway users. • Study ways to enhance service operations with Service Excellence • Study ways to create service innovations to increase operational efficiency • Communicate and publicize channels for reporting incidents, guidelines and standards for rescue services • Define and review channels for receiving feedback and the process of dealing with such issues comprehensively and effectively

Stakeholders	Needs / Expectations	Participation Management Guidelines and Strategic projects responsive to stakeholders
<p>Supplier and Partner</p> 	<ul style="list-style-type: none"> • Anti-corruption and transparency in good corporate governance • Conducting business according to relevant standards and requirements • Disclosure of procurement/hiring • Fair mid-price • Fair treatment • Information accessibility and effective PR communications • Internal process efficiency, organize social and environmental activities 	<ul style="list-style-type: none"> • Meetings • Work audit/evaluation • Company website • Email • Telephone • Complaint channels • Develop a website for business partners to communicate central pricing and procurement standards • Eco-friendly product procurement communication
<p>Creditor</p> 	<ul style="list-style-type: none"> • Continuous business expansion • Stability and availability of service • Legal disputes • Innovation to increase efficiency of the Company's operations • Risk Management • Joint business investment and development • Compliance with ESG regulations • Add trade partners to help facilitate service users and sales promotion • Value of price • Service rates responsive to users' needs with discount package • Expansion of future service routes 	<ul style="list-style-type: none"> • Compliance with loan terms and timely debt repayment • Meeting to exchange information and maintain good relationship • Reports on financial and annual performance • Communicate business directions and strategies covering economic, social and environmental dimensions to build confidence in earning income in the future • Create engagement by studying ways to create business alliances with the bank in order to enhance service and satisfaction for customers/ service users such as creating benefits from using credit cards to use the tollway • Define and review channels for receiving feedback and the process of managing such issues comprehensively and effectively.



Stakeholders	Needs / Expectations	Participation Management Guidelines and Strategic projects responsive to stakeholders
<p>Companies in the same industry</p> 	<ul style="list-style-type: none"> • Service efficiency • Safety on the routes • Conduct social and environmental activities • Innovation to increase efficiency of the Company's operations • Security of information technology systems • Fair business competition 	<ul style="list-style-type: none"> • Communication via Company website • Annual reports • Ethical treatment of competitors and fair competition • Communicate and disclose business operations, create business alliances • Build confidence by adhering to fair and transparent competition policies and practices • Communicate to ensure the guidelines and operations that the organization has set security measures for the organization's information technology system, and protection of personal information to be recognized and build confidence in the operations of the organization.
<p>Community, Society and Environment</p> 	<ul style="list-style-type: none"> • Social and environmental activities such as <ul style="list-style-type: none"> - Educational support and development - Promotion of health and safety - Promotion of quality of life and the environment in the community, creating jobs and income for the community • Participation in community activities and organizing social activities for socially disadvantaged group • Creating a good and safe environment • Cleanliness and safety of areas under the tollway • Drug prevention • Speed control and traffic discipline on tollway • Value of toll price • Cleanliness and environment • Pollution prevention • Effective access to information and public relations. Monitoring of social responsibility operations 	<ul style="list-style-type: none"> • Identification of key community targets to carry out social responsibility projects with corporate talents in a long and continuous way in line with the organization's 5 aspects of social activities. • Implementation of social responsibility projects, creating a balance between the implementation of social responsibility in the form of CSR in Process and CSR after Process. • Arrange for follow-up to measure performance for reviewing and developing implementation of social responsibility projects. • Strategies for social responsibility operations that create recognition, such as the expansion of the 3 Rs principle into the target community. • Create network alliances for social responsibility operations to create impacts on the wider society, for example, collaboration with private organizations that have CSR operations— the 3Rs project in collaboration with a waste recycle plant. • Build employee engagement by being volunteers in activities to improve the quality of life of the community. • Define and review channels for receiving feedback and the process of dealing with such issues comprehensively and effectively.

3.2.4 Materiality Topics

Based on surveys, analyzing needs, expectations, and concerns of stakeholders to guide the response and to analyze the materiality topics of the organization by considering the organization's context, business direction trend, organizational goals, business risks, including important issues of the industry in the same business group are used for formulating strategies for sustainability in response to the Company's material issues, as well as analyzing alignment with the United Nations Sustainable Development Goals (SDGs), The Company's materiality topics have set a process for participation at all levels: employees, management, various sub-committees and approved by the Board of Directors as follows:



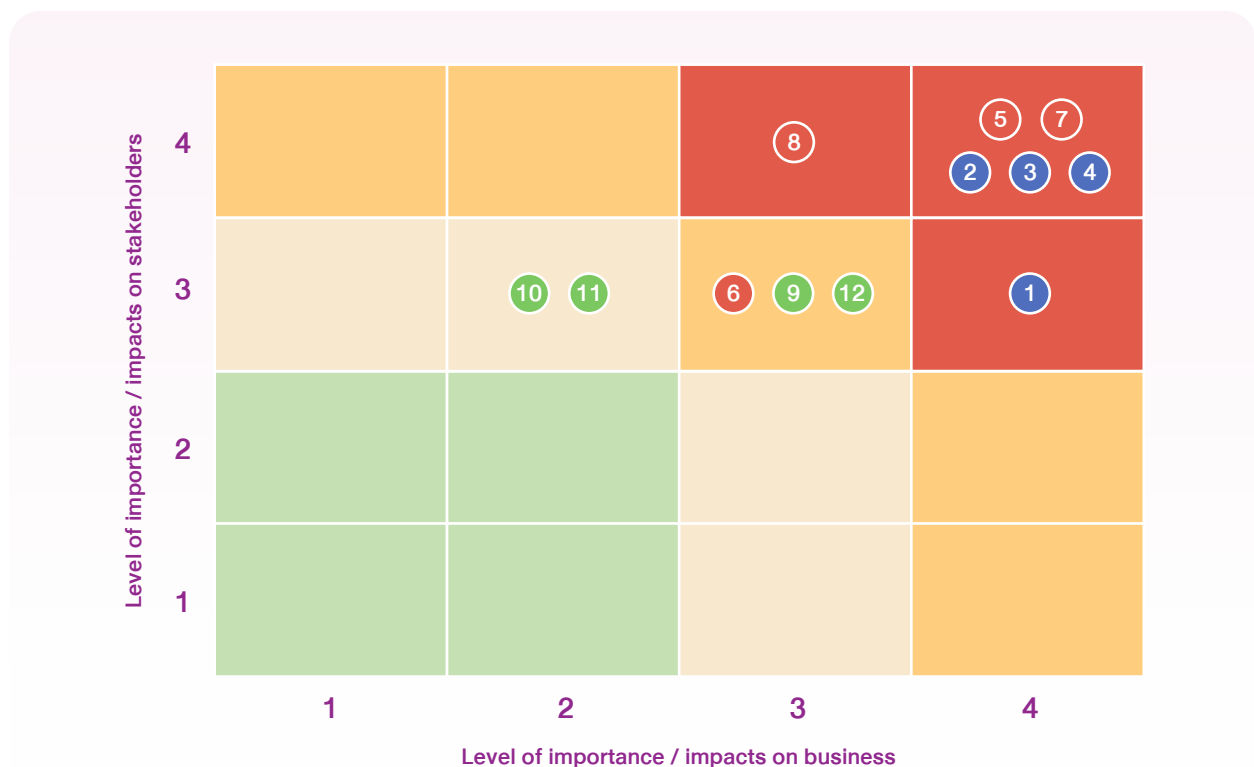


Materiality Topics 2022

According to the 2022 business sustainability plan, the management has analyzed the impacts, risks, and opportunities of the Company for 2022 as follows:

Sustainability dimension	Materiality Topics	Risks and impacts	Opportunities and positive factors
Economic	1. Innovation 2. Sustainability strategy policy 3. Risk management and BCP 4. Value chain management	The risk of business discontinuity and unsustainability; and lack of business partners.	Build business growth and sustainability responsive to changes and create opportunities for business expansion.
Social	1. Fair labor practices 2. Human rights 3. Customer responsibility 4. Responsibility to surrounding communities and society	Possibility of complaints and lack of acceptance from the community.	Build relationships with employees and communities to strengthen the business and to create a good image for organizational development.
Environment	1. ISO14001 Environment Management Standards 2. Greenhouse gas management 3. Management of effluents and waste 4. Energy management	Impacts from changes in the environment and laws that may affect operations.	Reduce the cost of using resources and meet energy and environmental management standards.

Prioritization of Materiality Topics in 2022




Performance according to Materiality Topics in 2022

Sustainability dimensions	Materiality Topics	Performance
Economic	<ol style="list-style-type: none"> 1. Innovation 2. Sustainability strategy policy 3. Risk management and BCP 4. Value chain management 	<ol style="list-style-type: none"> 1. Innovation: conducted a study to develop innovations to extend to new businesses of 4 projects. 2. Sustainability strategy policy: the Company has been listed in the Sustainable Stocks category with the BBB credit rating. 3. Risk management and BCP: the Company has completely implemented the risk management plan and the results of the overall corporate risk assessment are low. 4. Value chain management: the Company has assessed the satisfaction of stakeholders on the Company's business operations at the satisfaction level of 82.51%*. <p>Summary of performance on economic dimension or corporate governance in 2022, the Company has continued to operate under good corporate governance until being selected on the list of sustainable stocks. It also received a 4-star rating on corporate governance (CGR), as well as continued business development. In the development of the Company's business, the Company is still ready to participate in bidding for new projects and study to for new income sources other than toll revenue.</p>
Social	<ol style="list-style-type: none"> 5. Fair labor practices 6. Human rights 7. Customer responsibility 8. Responsibility to surrounding communities and society 	<ol style="list-style-type: none"> 5. Fair labor practices: the Company has implemented employee engagement and has studied employee engagement at 62.82%*. 6. Human rights: the Company found no complaints concerning this topic. 7. Customer responsibility: the Company provides services and creates engagement with customers, which has a customer satisfaction of 95.16%* 8. Responsibility to surrounding communities and society: the Company has continuously carried out CSR activities in 5 aspects with the community and the community satisfaction assessment result was 78.80%. <p>Details of social sustainability performance are reported in Section 3.4 Sustainability Management in Social Dimension.</p>




Sustainability dimensions	Materiality Topics	Performance
Environment	9. ISO14001 Environment Management Standards 10. Greenhouse gas management 11. Management of effluents and waste 12. Energy management	9. ISO14001 Environment Management Standards: the Company was certified and performed according to environmental standards. 10. Greenhouse gas management: the Company was able to carry out activities to reduce greenhouse gas emissions according to the 3Rs project as planned; and set a target percentage of greenhouse gas reduction. 11. Management of effluents and waste: the Company has sorted waste and was able to collect recyclable waste data according to the 3Rs project. 12. Energy management: the Company has measures to reduce electricity consumption through the Green Office project, resulting in a 9.5% decrease in electricity consumption in office buildings. Environmental sustainability performance is reported in Section 3.3 Sustainability Management in the dimension of the environment.


The defined Materiality Topics of the Company’s business are able to meet the UN SDGs in the following topics:




Goal 4:
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.




Goal 6:
Ensure availability and sustainable management of water and sanitation for all




Goal 7:
Ensure access to affordable, reliable, sustainable and modern energy for all




Goal 8:
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all




Goal 9:
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation




Goal 11:
Make cities and human settlements inclusive, safe, resilient and sustainable




Goal 12:
Ensure sustainable consumption and production patterns



Goal 13:
Take urgent action to combat climate change and its impacts



Goal 15:
Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



Goal 16:
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Sustainability Materiality Topics in 2023

The management conducted studies to analyze trends of expected changes in 2023-2027. The Company has a business development approach to deliver value to sustainability in the long-term. In addition, the organization must adapt to the rapid changes in the business world according to Mega Trends. The Company has analyzed the consistency with business operations, including analyzing internal and external factors using SWOT Analysis and PESTEL to analyze risks and opportunities in order to formulate strategies and business plans that are in line with many challenges on both risks and opportunities. The businesses must constantly adjust and develop themselves in order to survive and grow steadily and sustainably, as well as taking into account the nature of the concession contract and the rights and duties of the Company according to the concession agreement, including maintaining the benefits that are due to stakeholders and the convenience of tollway users concurrently. There were many changes in various areas after being listed on the Stock Exchange of Thailand and the COVID-19 outbreak in the past years. Mega trends, with both crises and opportunities combined with the results of stakeholders' survey, have defined key issues for driving future long-term plans as follows:

Mega Trends

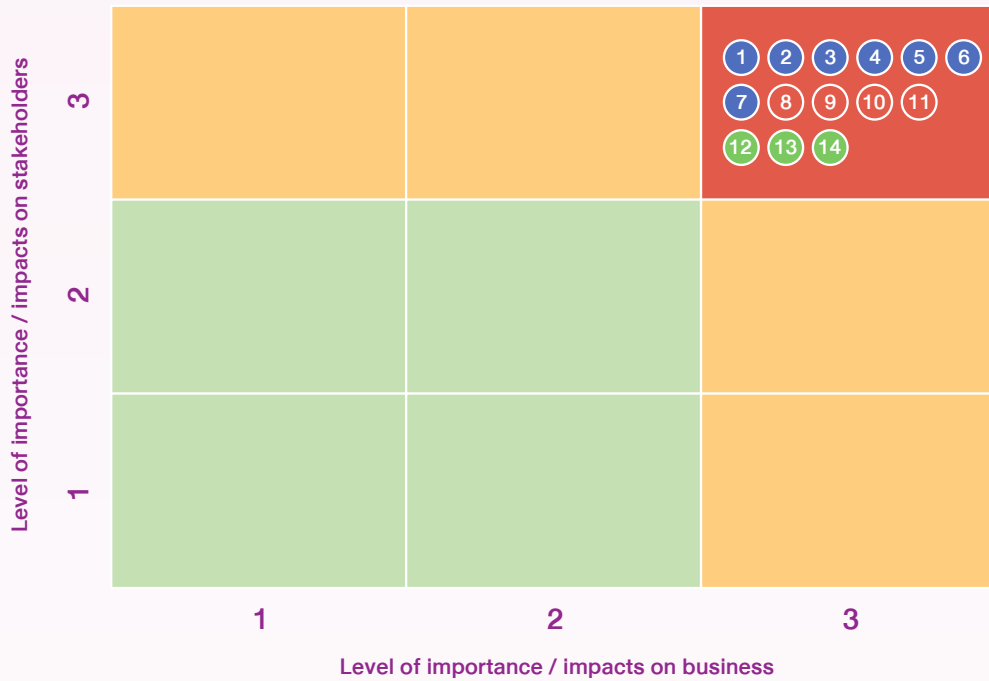
2022	2023	
Change of Technology	Digital Transformation	Health
<ul style="list-style-type: none"> • Payment Technology • Green Energy and Solar Energy • Artificial Intelligence (AI) and Robotics Process Automation (RPA) • Enterprise Resource Planning (ERP) improvement and integration 	<ul style="list-style-type: none"> • Robotics / AI • Big data • Cybersecurity • E-commerce 	<ul style="list-style-type: none"> • Aging society • Health hygiene • New disease • Cashless society
Change of Law and Environment	<ul style="list-style-type: none"> • Block chain • Metaverse • Seattleite internet 	Resilience
<ul style="list-style-type: none"> • Stock Exchange of Thailand (After IPO) • CG Policy Change to E/S/CG Sustainability Company • Personal Data Protection Act (PDPA) • ISO standard 	<ul style="list-style-type: none"> • Net-zero emission • ESG • Future Energy 	<ul style="list-style-type: none"> • Multi-partner • Resilience organization • Prepared / adaptable • Collaborative
Change of Consumer Behavior		
<ul style="list-style-type: none"> • Cashless Society • Electric Vehicles (EV) • Online Customer Relation Management (CRM) • Social Media Information 		



Business planning to adapt and develop the organization to support risks and opportunities that arise in the future to be able to grow steadily and sustainably by focusing on implementing a sustainable business plan to support activities covering goals to deliver value in 3 dimensions of sustainability. The Stock Exchange of Thailand focuses on the fundamentals and elements of sustainable business development, which must have good corporate governance as an important foundation together with responsible management for stakeholders, including driving the business to economic growth while integrating social and environmental issues into the operating process in order to achieve the goal of long-term sustainable growth and responding to all stakeholder groups.

The goal is to deliver value and sustainability in 3 dimensions: Environment, Social, and Governance. The management has surveyed information from all 8 groups of stakeholders and has reviewed and analyzed important issues that will continue in 2023 as follows:

Sustainability dimension	Materiality Topics	Management guidelines and strategy
Economic	<ol style="list-style-type: none"> 1. Risk Management 2. Traffic management efficiency 3. Service efficiency 4. Risk management from serious accidents 5. Investment in new businesses and business expansion 6. Security and stability of service 7. Safety on the roads 	<ul style="list-style-type: none"> • Safer Road Traffic Management/ Maintenance Strategy • Inclusive Growth Strategy • Other Non-Toll Businesses Strategy • ESG Sustainability Strategy • HPO Resilience Management Strategy • Efficient cash and cost management strategy • DMT Excellence Recognition Strategy
Social	<ol style="list-style-type: none"> 8. Access to information and public relations 9. Building relationships with employees 10. Human resources development 11. Activities for society and the environment 	<ul style="list-style-type: none"> • Safer Road Traffic Management/ Maintenance Strategy • ESG Sustainability Strategy • HPO Resilience Management Strategy • DMT Excellence Recognition Strategy
Environment	<ol style="list-style-type: none"> 12. Cleanliness and surroundings 13. Pollution prevention 14. Reducing greenhouse gas emissions 	<ul style="list-style-type: none"> • ESG Sustainability Strategy • Efficient cash and cost management strategy • DMT Excellence Recognition Strategy



No.	Materiality Topics
1.	Risk Management
2.	Traffic management efficiency
3.	Service efficiency
4.	Risk management from serious accidents
5.	Investment in new businesses and business expansion
6.	Security and stability of service
7.	Safety on the roads
8.	Access to information and public relations
9.	Building relationships with employees
10.	Human resources development
11.	Activities for society and the environment
12.	Cleanliness and surroundings
13.	Pollution prevention
14.	Reducing greenhouse gas emissions

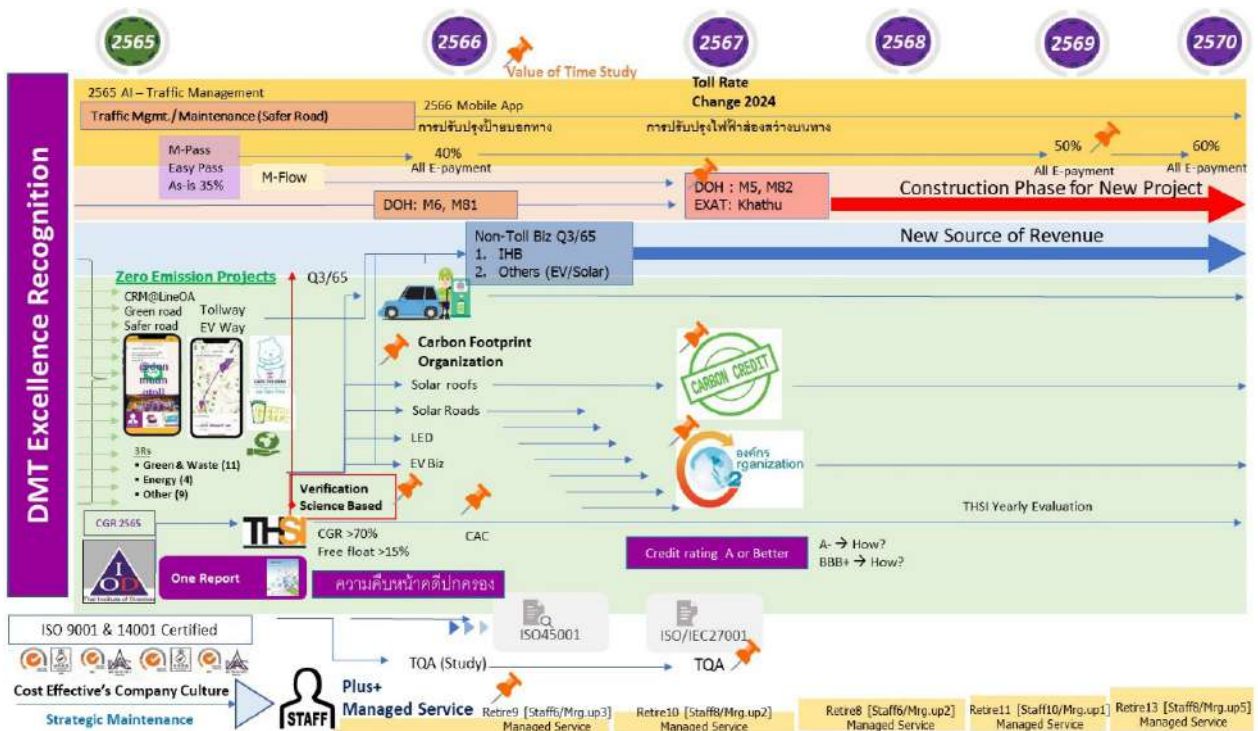


3.2.6 Corporate strategies to drive business plans towards sustainability 2023-2027

The Company has set goals in a clear time frame in order to achieve strategies or business plans in developing products or services to ensure that the Company is able to appropriately handle issues that are material to the business. The formulation of management strategies and preparation of business plans for sustainability for 2022 continuing into 2023, the Company has operated with the participation of all groups of stakeholders through surveys of satisfaction, concerns and expectations. In addition, the survey results were analyzed by the management and employees in each department through every sub-committee before being considered and approved by the Board of Directors. This leads to participation in giving recommendations according to the authority and duties of the charter of that committee.

In order to set strategies and prepare a business sustainability plan for 2022 and continuing into 2023, the Company focuses on the fundamentals and components of long-term sustainable business development for a period of 5 years from 2023-2027, which requires good corporate governance as an important foundation together with responsible management for stakeholders, including driving business to grow economically while integrating social and environmental issues into the operating process to aim for long-term sustainable growth and responding to all stakeholder groups. The goal is to deliver value and sustainability in 3 dimensions: Environment, Social, and Governance.

The management has organized a workshop for executives at the level of department managers and above by brainstorming opinions, suggestions, and analyzing strengths, opportunities, and risks for "Developing a Sustainability Business Plan 2023-2027" according to the policy from the Board of Directors, between 16-18 August 2022, to discuss ways to develop sustainable business with a commitment to create sustainability and deliver value in all 3 dimensions to stakeholders. In the business plan for 2023, various projects and budgets must have a clear goal that will deliver value to all groups of stakeholders, divided into 7 strategies as follows:



1. Safer Road Traffic Management / Maintenance Strategy

According to the Company's vision "To become a leading expressway operator connecting between the road network and the transportation system focusing on excellent services for convenience, speed and safety in travelling via efficient management systems, develop technology, and study of new project investment—both highway or expressway businesses and other businesses—by adhering to responsibility for all stakeholders to deliver sustainable values," the management has established the Safer Road Traffic Management/ Maintenance strategy as a key strategy for long-term sustainability consisting of projects and routine work in the line of operations as a driving unit such as tollway maintenance, toll collection, Rescue and Traffic Management, toll collection system, traffic control system, including strategic projects that will promote convenience, speed and safety.

2. Inclusive Growth Strategy

According to the business development guidelines in the meeting No. 1/2019 on 21 November 2019, it was considered to be a business development guideline to promote the businesses that the Company has proficiency. The management has considered that for sustainability and business continuity, an "Inclusive Growth" strategy has been established to attract business partners to create continuous growth. According to the opportunity that the government plans to expand routes and connections in the future, there are 4 groups of strategic projects, namely:

Group 1) New projects that the government sector offers opportunities for private investment according to the company's expertise (Motorway/Expressway Projects)

Group 2) Tollway Connecting Ramp and Transit Oriented Development (TOD) Projects

Group 3) Non-Toll Business Projects

Group 4) Tollway development in every area to ensure efficiency and modernity before the end of the concession, as well as planning for the ongoing project operation after the end of the concession.

For projects that support the routine work, they improve the Company's operational and maintenance expertise, O&M, RPA and ERP development, cost management of legal advisory groups, administrative case follow-up, credit rating creation, and ISO standard maintenance.

3. Other Non-Toll Strategy

At the Scrutiny Committee (currently the Executive Committee) No. 20/2021 on Wednesday, 27 October 2021, the management was assigned to study other non-toll road businesses that are different from the existing ones to strengthen and generate income for businesses such as technology or Start Up Technology or Start Up Consumer in order to have a clear operating framework. The management is to consider the possibility of implementing such Start Ups as well, both in terms of personnel with potential to develop start-ups and operations. This includes an application development model that will help track traffic, which the management has coordinated with experts in Tech Startups and New Ventures to prepare an action plan to find Other Non -Toll Road Businesses where the experts are focused on future technologies and can be developed into new businesses other than the Tollway, by setting up a study time frame of 1 year for decision making. The management has conducted a study and 4 possible projects have been assigned to study in details. Therefore, main strategies have been defined in order to achieve sustainability and generate other income in addition to toll fares. The Committee to supervise the study of new projects in other business groups and the Innovation and Deep Tech Working Team are the driving force.



4. ESG Sustainability Strategy

The Company commenced the project to deliver values to the environment, society, and its business in 2022 according to the Company's plan to have a business plan for environmental sustainability according to the 3Rs project. In 2022, the Company was able to operate according to the specified plan. In addition, the progress of environmental, social, and legal changes has been monitored, including government policies on environmental promotion. In 2022, the Company has set a goal to reduce its greenhouse gas emissions according to Thailand's policy after joining COP26 with an important goal of Thailand being a Carbon Neutrality in 2050, and net zero greenhouse gas within 2065. After that at the COP27 meeting on policy and plan on climate change to elevate the goals of Thailand, plans must be adjusted to comply with Thailand's policy as follows:

1) The updated long-term strategy still has the same materiality but revised important issues such as setting the maximum greenhouse gas emissions 5 years faster from 2030 to 2025, adjusting the carbon neutrality target to be 15 years earlier, and zero greenhouse gas emissions target has been moved earlier by 35 years from 2065 to 2050.

2) The 2nd updated Nationally Determined Contributions (NDCs) still has the same materiality as the 1st version but revised the important issues on short-term targets to be in compliance with the updated long-term strategy, such as reducing greenhouse gas targets by 30-40% from normal within 2030, adding information on reports, emissions/absorption of greenhouse gas in the forest, and other achievements.

5. HPO Resilience Management Strategy

To develop the organization's potential on competitiveness in the future and to accommodate changes in both personnel and technology or Digital Disruption, HPO Resilience Management strategies have been formulated for short-term and long-term planning so that the Company can continue its business without interruption by developing personnel potential (Reskill/Upskill/Newskill) and plans to support the crises and opportunities that will occur in the future.

6. Efficient cash and cost management strategy

As the Company has a consistent cash flow on a daily basis, it received a policy from the Board of Directors to study and find ways to manage cash effectively, including managing other costs that will bring the most benefits. Therefore, this strategy has been established as the main strategy to drive financial management.

7. DMT Excellence Recognition Strategy

To create awareness of the Company's expertise through the evaluation of an external agency that can show the potential of the company, the management received policies from the Board of Directors to continue to create awareness of the Company's expertise and inform the Department of Highways together with operating results. This is part of building confidence with the Department of Highways to see the Company's potential in seeking opportunities to obtain continuous concessions according to Section 49 of the Public-Private Partnership Act 2019: "The project-handling agency shall prepare directions for the operation of the project in furtherance of the partnership project after the termination of the partnership agreement, on the basis of a comparison of the case where the State agency undertakes it and the case where a private party is allowed to enter into partnership, for submission to the minister of the responsible ministry at least 5 years prior to the termination of the partnership agreement, having regard to interests of the State, continuity of the delivery of public services and impacts on the public."

3.3 Sustainability Management in Environmental Dimensions

The Company realizes the importance of limited natural resources and environmental protection for good quality of life of the present and future generations by committing to valuable consumption, taking into consideration the impacts of pollution from business operations and global climate change. Therefore, environmental policies and guidelines have been established to enhance operations to be responsible for the environment and to promote environmental awareness among personnel.

3.3.1 Environmental policies and guidelines

In order to systematically manage environmental aspects, the environmental management system in accordance with ISO 14001 has been implemented, as well as establishing the “Quality and Environment Policy” giving importance to effective management on resources and energy, including pollution prevention and control from key operations such as noise, dust, waste, and effluent from buildings, etc.

The Company has appointed the 3Rs (Reduce, Reuse, Recycle) working team to be responsible for driving the Energy Conservation Policy, including various sub-working teams such as the Energy sub-working team is responsible for energy management, the Green & Waste Management working team is responsible for waste management, the Green Office Project, and the Green Building working team. The Company has set an environmental policy according to ISO14001 standards and announced to comply with the requirements / laws / standards related to the environment, as well as a sustainable business development policy into concrete practice by setting measures and projects to achieve the goals, follow up and report results to senior executives. This is an important mechanism for continual management improvement. (Details can be found in www.tollway.co.th topic of sustainable development).

The Company commenced the project to deliver values to the environment, society, and its business in 2022 according to the Company’s plan to have a business plan for environmental sustainability according to the 3Rs project. In 2022, the Company was able to operate according to the specified plan. In addition, the progress of environmental, social, and legal changes has been monitored, including government policies on environmental promotion. In 2022, the Company has set a goal to reduce its greenhouse gas emissions according to Thailand’s policy after joining COP26 with an important goal of Thailand being a Carbon Neutrality in 2050, and net zero greenhouse gas within 2065. After that at the COP27 meeting on policy and plan on climate change to elevate the goals of Thailand, plans must be adjusted to comply with Thailand’s policy as follows:

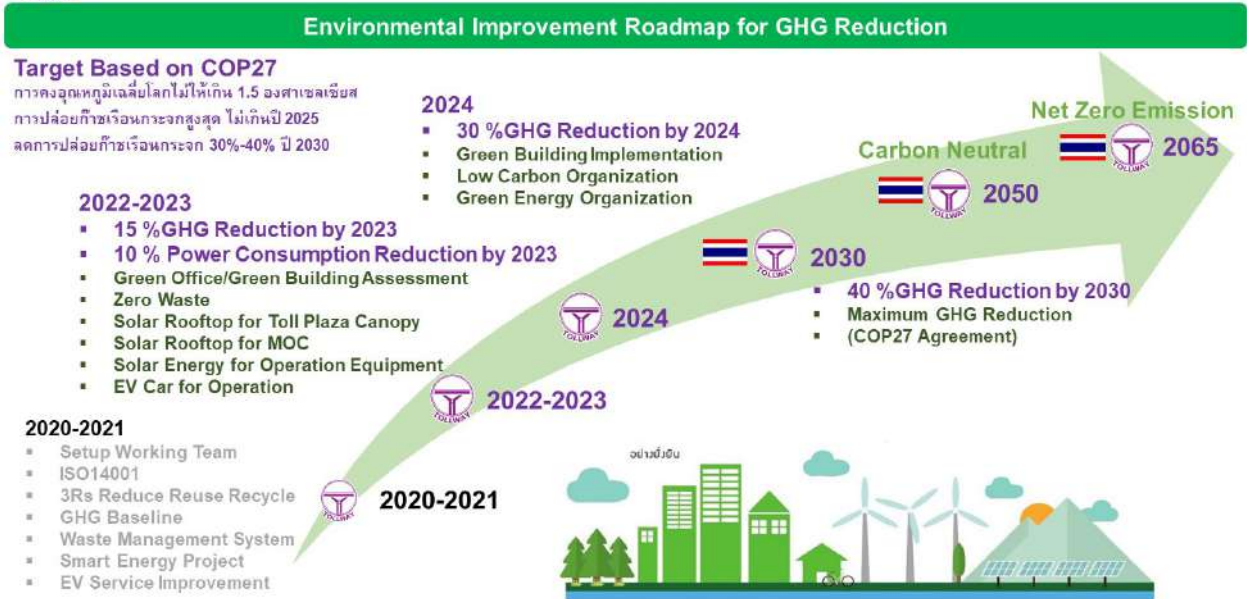
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2) The 2nd updated Nationally Determined Contributions (NDCs) still has the same materiality as the 1st version but revised the important issues on short-term targets to be in compliance with the updated long-term strategy, such as reducing greenhouse gas targets by 30–40% from normal within 2030, adding information on reports, emissions/absorption of greenhouse gas in the forest, and other achievements.

In order to drive the aforementioned policies, the Company has established key ESG strategies to promote the delivery of value to the environment, society and business of the company. The targets for reducing greenhouse gas emissions are set as follows:



The targets for reducing greenhouse gas emissions



3.3.2 Environmental management and performance

Greenhouse gas emissions

The Company uses energy from 2 sources: electric power and gasoline. The electric power is used for supplying the lighting system and electronic devices on the tollway, toll plazas, and head office, including the server system and digital devices of the Operating Control Center (OCC) and tollway devices under the Smart Project. Gasoline is used for vehicles of various departments, engine of the backup power generator, facilities, route maintenance, and basic infrastructure maintenance for safety of tollway users.

For environmentally friendly operations and greenhouse gas emission reduction, the Company has continuously promote electricity conservation in office buildings and toll plazas since 2013 by starting with changing the light bulbs to energy-saving and currently to LED lighting system. In 2019-2020, the Company has further implemented the use of LED lighting system on tollway and traffic signs at various toll plazas. As for the fuel combustion of vehicles, the gasoline type has gradually been adjusted to E20 and B20 according to the government’s energy development mechanism.

Although 2020-2021 were the years of serious business recession due to the COVID-19 outbreak, the Company continued to adhere to this project by studying the feasibility of using solar power generated from solar rooftop to replace some of the electricity and the possibility of using EV engines with surveillance vehicles on the tollway. Moreover, the 3Rs working team has proposed plans for future environmental projects such as waste management, renewability, reduction of paper consumption, promotion on using electric vehicles by installing electric charging stations for toll users, study on technology concerning energy conservation and renewable energy, as well as technology of toll collection system that is convenient and faster to reduce pollution on the tollway. Amount of electricity and gasoline consumption and greenhouse gas emission in 2022 can be summarized below:

SUMMARY AMOUNT OF DMT's ENERGY CONSUMPTION

TYPE (Unit)	YEAR 2562 (2019) BASELINE	YEAR 2563 (2020)	YEAR 2564 (2021)	YEAR 2565 (2022)
Consumption of Benzene Gasohol (Liter)	55,939	49,597	32,600	41,954
Consumption of Diesel (Liter)	156,407	134,290	105,548	124,907
Consumption of LPG (Kg)	833	1,440	1,182	919
Electrical consumption (KWh)	4,729,277	4,816,043	4,712,994	4,780,391

Remark: Energy consumption declined continuously in 2020-2021 as a direct result from COVID-19 preventive measures and partly from the energy-saving policy and the use of alternative fuels.

Scope of GHG		SUMMARY AMOUNT OF DMT's GHG EMISSIONS BY YEAR (KgCO ₂ e)			
		2562 (2019)	2563 (2020)*	2564 (2021)*	2565 (2022)
Scope 1	Direct GHG From Mobile Combustion	546,435	472,292	357,497	427,262
	Direct GHG From Stationary Combustion	9,797	11,051	8,284	11,602
	Direct GHG Emissions	316,800	334,400	70,400	176,000
	Total Scope 1	873,033	817,743	436,181	614,865
Scope 2	Indirect GHG from Electricity Consumption (KgCO ₂)	2,350,451	2,316,517	2,215,107	2,246,784
	Total Scope 2	2,350,451	2,316,517	2,215,107	2,246,784
Scope 3	Water usage	15,778	13,942	12,101	12,108
	Total Scope 3	15,778	13,942	12,101	12,108
Total Scope 1,2,3		3,239,262	3,148,202	2,663,389	2,873,756
Avg. number of Employees (Persons)		457	452	423	382
Greenhouse Gas Emissions Per Employee (KgCO₂e/Person)		7,088	6,965	6,296	7,523

Remark

1. A significant reduction trend of greenhouse gas emission, directly and indirectly, since 2019 baseline is partly related to COVID-19 preventive measures.
2. DMT has been efficiently conserved and consumed energy since 2019 to the present.
3. The greenhouse gas emission data is in the process of carbon footprint verification of the organization according to the carbon footprint of the organization (CFO), performed by Verifier registered with Thailand Greenhouse Gas Management Organization





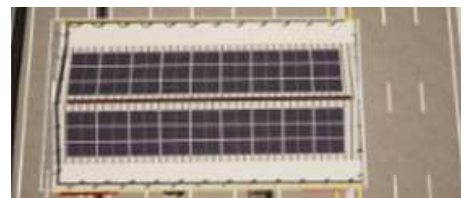
Action plan for 2022	Target	2022 Performance
Provide data on greenhouse gas emissions and carbon footprint of the organization according to the Carbon Footprint of the Organization (CFO) Verification Guidelines.	Set baselines and Science Based Targets initiative (SBTi) to reduce corporate greenhouse gas emissions with a goal to reduce greenhouse gas emissions by 40% in 2030, have a target Carbon Neutrality by 2050, and Net Zero emissions by 2065.	Completed. In the process of carbon footprint verification of the organization according to the carbon footprint of the organization (CFO), performed by Verifier registered with Thailand Greenhouse Gas Management Organization

Environmental projects to reduce greenhouse gas emissions

- Solar Rooftop Project to install solar panels on the roof of office buildings and toll plaza buildings

The Company has studied and found that there is an area where solar rooftop can be installed approximately 380 KWp, which can produce electricity of 484,900 KWh/Year, and thus conserve energy consumption by more than 25-30%. The Company has a 2-phase investment plan. The first phase is installed at the office building and toll plaza at Don Muang, with production capacity of approximately 200 KWp, and is expected to be installed in July 2023. The second phase is installed at the toll plaza building and the remaining 8 toll plaza buildings for another 180 KWp by 2023, representing a reduction in greenhouse gas emissions of 225 TonCO2e/Year. This project will be certified by T-VER, which is Thailand Voluntary Emission Reduction Program, a project to reduce greenhouse gas emissions that the Thailand Greenhouse Gas Management Organization (TGO) developed to promote and support all sectors to voluntarily contribute to the reduction of greenhouse gases in the country.

Action plan for 2022	Target	2022 Performance
Study, design, evaluate the suitability and cost-effectiveness of Solar Rooftop installation at office buildings and toll plaza buildings.	Installation of Solar Rooftop approximately 380 KWp, which can generate electricity of 484,900 KWh/Year, and thus save electricity consumption by 25-30%, equivalent to GHG reduction of 225 TonCO2e/Year.	The study is complete and is currently in the process of installing phase 1, installation at the office building and the Don Muang toll plaza building. The production capacity is approximately 200 KWp and is expected to be completed in July 2023. Phase 2 will be installed at the toll plaza building and the remaining 8 toll plaza buildings, with another 180 KWp within 2023.



• Stock of Thailand's Care the Bear Project

Stock of Thailand's Care the Bear Project is a project that encourages listed companies and interested organizations to change their behavior to reduce greenhouse gas emissions from corporate activities, both online and onsite, such as e-AGM, online meetings, analyst meetings, town halls, press conferences, training, seminars, E-Meetings, etc. The Company's past performances have contributed and reduced greenhouse gas emissions in 2022



Care the Bear
e-Document, e-Tax/e-Receipt,
e-Withholding Tax, e-Learning,
e-Meeting/Event

✓ GHG = **4,195** KgCO₂e (December 2022)

equivalent to 4,195 KgCO₂e, or carbon dioxide absorption of 466 trees.

Action plan for 2022	Target	2022 Performance
Joined SET's Care the Bear Project.	Continuous operation with a goal to further reduce greenhouse gas emissions from Care the Bear Project in 2022 by 10%.	Train employees of all departments. The Company has participated in reducing greenhouse gas emissions in 2022 equivalent to 4,195 KgCO ₂ e, or the absorption of carbon dioxide by 466 trees.

• Stock of Thailand's Care the Wild "Plant & Protect" Project

The Company joined the Stock Exchange of Thailand (SET) to support forestation in the Care the Wild "Plant & Protect Project that focuses on planting new trees and promote tree caring through network organizations, both public and private sectors, with the community taking care of the trees in order to expand the forest line of Thailand in the future. DMT has a mission and goal to plant 10,000 trees within 5 years over 50 rai of forest at Ban Nong Pling



forest community, Kanchanaburi province, which is equivalent to greenhouse gas reduction of 18,000 KgCO₂e per year.

Action plan for 2022	Target	2022 Performance
Joined SET's Care The Wild "Plant & Protect"	To plant 10,000 trees within 5 years over 50 rai of forest at Ban Nong Pling forest community, Kanchanaburi province, which is equivalent to greenhouse gas reduction of 18,000 KgCO ₂ e per year.	Joined the project and selected 50 rai of forest for planting at Ban Nong Pling forest community, Kanchanaburi province.



• Green Office, Green Procurement and Green Building Project

The Company also followed the Green Procurement Policy, in which it was able to purchase products and merchandise that are environmentally friendly by more than 22%, and prepared to




assess the Green Office Project, and studied the improvement of office buildings to meet the Green Building criteria with a goal to be accredited in 2024.

Action plan for 2022	Target	2022 Performance
Implement green procurement projects for environmentally friendly products.	Percentage of procurement of environmentally friendly products is to be higher than that in 2022.	Procure 24% environmentally friendly products of total procurement.
Implement Green Office Project	To be certified Green Office within 2024.	Conduct studies and self-assessment in project participation, as well as issuing measures to conserve water, electricity, resources, and create awareness by inviting employees to participate in Green Office Project.
Implement Green Building Project	To receive Silver-level certification in 2024	Study and evaluate the MOC office building in participating in the Green Building Project (scope of renovation of the existing building).
Electricity Consumption Reduction	10% Compared to 2022	29 % Compared to 2019
Water Consumption Reduction	10% Compared to 2022	23 % Compared to 2019

• A study project on greenhouse gas reduction of cars using the Electronic Toll Collection System (ETC)

The ETC system and the use of EMV cards and QR Code that the Company has already developed and implemented also contribute to the reduction of greenhouse gases, which allow cars to pass through quickly without slowing down, or having to

wait to pay, and thus help reduce pollution in front of the toll gates. The Company has implemented the GREEN Road Project to encourage users to switch to automatic systems by giving accumulated points for the CRM Program via LineOA, which will receive 2 times the normal points. Currently, approximately 35-40% is ETC users. The Company is in the process of studying with expert consultants to assess the reduction of greenhouse gas emissions from such systems.

Action plan for 2022	Target	2022 Performance
Implement the GREEN Road Project to promote the use of ETC system in reducing pollution in front of the toll gates.	An average of 50% ETC users within 2026, as well as developing processes to reduce greenhouse gas emissions through T-VER METH.	An average of 35-40% ETC users.  GREEN Road Project POINT x2 for ETC user Electronics Toll Collection System To reduce Emission at Toll Gate ✓ Actual ETC user = 35-40%

- A study and development project to promote the use of EV cars

The Company signed an MOU with EVme PLUS Co., Ltd. on 19 October 2022 to jointly study the feasibility and to promote the use of electric vehicles and related services including testing experience, data collection, business feasibility study, functional test, design, and usage patterns. There are several joint study projects in order to create awareness and electric car services such as a study on installing EV charging stations suitable for both providing assistance on DMT users and internal activities of DMT, a study on mobile charger unit usage for both in terms of production and use to meet various missions of DMT. Using electric cars from EVme for DMT's missions via services on Platform EVme by jointly determine the model for the experiments, operational tests during the pilot phase, data collection from actual usage, including assessing the amount of greenhouse gas reduction caused by all activities, etc. The Company plans to switch executive cars to electric, which can reduce fuel consumption by 200 litres per month per vehicle, or a decrease of 60%



January 2023

Switch from ICE to EV (2 Cars)

**Gasoline 200 liter/month (approx. 8,000 THB)
Saving 60% (approx. 4,800 THB/month)**

GHG = 2,748 KgCO2e/Year/car

January 2023

Install EV Charging Station

**1 DC Fast Charging Station (2 Parking spaces)
For DMT Car and Rescue Services**



on fuel cost, equivalent to greenhouse gas reduction of 2.7 TonCO2e/vehicle/year. This project will be T-VER certified, or the Thailand Voluntary Emission Reduction Program.

Action plan for 2022	Target	2022 Performance
To install electric charging stations to promote the use and service of electric cars by installing an electric charging station at the office building and promoting the shift to EVs among employees and executives.	Executives switched to all electric cars and encouraged employees and users who use electric cars to be able to use the charging service at the office building (during the time of generating electricity from Solar Rooftop).	Install a charging station to provide services to users of Don Muang Tollway, in which installation at the building office is completed. There are also plans to replace 2 executive cars with EVs.

- Tollway EV Way Project

Development of an electric vehicle charging station guide map around Don Muang Tollway under the concept of "Tollway EV Way", which has been completed and opened for use since August 2022. The information contained in the system consists of charging station location, station operator, opening hours, service provider contact number, provider's website, charger type, service rate, and ability to





navigate to the station with the shortest route. This is considered a promotion for service providers of the Company. As it turns out, information on location of the electric charging station via www.tollway.co.th has been visited by more than 5,000 times during August – October 2022.

Action plan for 2022	Target	2022 Performance
Develop a route map for EV charging stations along Don Muang Tollway under the concept "Tollway EV Way" via www.tollway.co.th	Study the quantity of EV cars on the tollway and forecast average search increase in proportion to EV cars on the tollway.	Information on location of the electric charging station has been visited by more than 5,000 times during August – October 2022, an average of 55 times per day or approximately 0.06% of traffic volume per day.

Pollution and Waste Management as defined by Law

The Company has monitored and measured pollution values from operations by a legally authorized measurement agency to control in accordance with the law. The measurement results are as follows:

- **Dust**

Measure air quality in general by collecting air samples with High Volume Air to analyze the concentration of dust particles up to 100 microns in size for 24 hours at a location in front of the toll booths. The measurement results between 2019 and 2022 are in compliance with the laws as follows:

Measurement results and estimated dust particles concentration in general

(Dust particles smaller than 100 microns in 24 hours)

Year	Standard value* (mg./m ³)	Measurement Point				Conclusion
		Din Daeng Toll Plaza		Don Muang Toll Plaza		
		In front of toll booth Example No. 1	In front of toll booth Example No. 2	In front of toll booth Example No. 1	In front of toll booth Example No. 2	
2019	0.33	0.061	0.051	0.045	0.035	In compliance with the laws
2020	0.33	0.097	0.109	0.087	0.098	In compliance with the laws
2021	0.33	0.081	0.064	0.092	0.094	In compliance with the laws
2022	0.33	0.092	0.045	0.056	0.048	In compliance with the laws

* Announcement of the National Environment Board No. 24 (B.E.2547) regarding the determination of atmospheric air quality standards.

- Noise

The Company measures the cumulative average noise level throughout the operation, in which working period of employees per shift is 8 hours, in order to control, prevent, and improve working environment related to noise in accordance with the specified laws, as well as monitoring potential impacts on communities in the vicinity of the service routes by randomly measuring at the toll collectors at toll gates with large and heavy traffic, namely Din Daeng and Don Muang, annually.

Measurement results and evaluations of noise level in 24 hours

Year	Measurement Point											
	Din Daeng Toll Plaza						Don Muang Toll Plaza					
	24-hour average noise level (decibel A)			Maximum volume (decibel A)			24-hour average noise level (decibel A)			Maximum volume (decibel A)		
	Standard value* (mg./m ³)	Toll booth Example No. 1	Toll booth Example No. 2	Standard value* (mg./m ³)	Toll booth Example No. 1	Toll booth Example No. 2	Standard value* (mg./m ³)	Toll booth Example No. 1	Toll booth Example No. 2	Standard value* (mg./m ³)	Toll booth Example No. 1	Toll booth Example No. 2
2019	70	75.4	77.2	115	108.8	105.0	70	79.6	78.6	115	107.0	111.5
2020	70	77.2	79.6	115	107.6	109.2	70	75.6	77.3	115	106.0	108.0
2021	70	81	82	115	109.6	106.1	70	73.5	73.7	115	104.5	105.9
2022	70	72.9	66.8	115	103.5	103.0	70	79.8	72.3	115	105.3	104.4

* Announcement of the National Environment Board, No. 15 (B.E. 2540) on the setting of general noise level standards

* Announcement of the Ministry of Industry on the determination of the noise level and noise level from factory operations, B.E. 2548





The results of measurement and evaluation of the cumulative average noise level over the 8-hour period of work

Year	Din Daeng Toll Plaza					Don Muang Toll Plaza					Conclusion
	Average noise level (decibel A)					Average noise level (decibel A)					
	Standard value* (decibel A)	Collector in booth no. 1	Collector in booth no. 2	Collector in booth no. 3	Collector in booth no. 4	Collector in booth no. 1	Collector in booth no. 2	Collector in booth no. 3	Collector in booth no. 4	Collector in booth no. 5	
2019	85	74.3	79.1	78.4	79.6	77.3	77.6	72.0	77.8	75.1	In compliance with the laws
2020	85	77.5	73.6	77.5	77.1	77.2	74.5	74.7	76.2	79.2	In compliance with the laws
2021	85	75.4	77.1	75.8	74.5	78.7	77.4	73.9	78.7	83.8	In compliance with the laws
2022	85	71.2	74.3	73.8	82.2	79.2	73.5	74.5	75.3	77.5	In compliance with the laws

* Announcement of the Department of Labor Protection and Welfare on the standard of noise level that is allowed for employees to receive the average amount of time during each day of work, B.E. 2560
Remark: * reference from report of measurement and analysis of working conditions related to noise, Safety and Health and Work Promotion Association (Thailand) Under Her Royal Highness Princess Maha Chakri Sirindhorn Patronage.

• Waste Management

Manage waste by separating and disposing of waste according to the laws, as well as promoting reuse and recycle, such as recycling toll receipts and unused paper into Green Way notebooks and donating them to underprivileged schools throughout the country. The Company cooperates with GEPP Sa-Ard, a start up for waste management, in which 3,366 kilograms of waste can be sorted and reused, representing a 23.58% recycling rate, equivalent to a reduction in greenhouse gas emissions of 5,508 KgCO₂e (for a period of 8 months). The implementation of sustainable waste management is upgraded with the goal of Zero Waste to Landfill by bringing waste generated within the office and the front of the toll gates to be sorted into a system and part of the waste can become useful, such as bringing it into the recycling process. In addition, dust collected by the Company from tollway maintenance can be reused. A project has been initiated to research and experiment with turning dust from vacuum cleaner trucks mixed with plastic waste into decorative and pave way materials. This project is a collaboration with experts in recycling plastic waste with international standards, namely the Plastics Institute of Thailand, Zero Waste Yolo Co., Ltd., and GEPP Sa-Ard Co., Ltd., supporting the research and experimental project of forming dust from vacuum cleaners mixed with plastic waste into decorative and pave way materials to be used in the activities for the community of the Company.




Waste Management
Waste Recycle 3,366 Kg (8 Month)
GHG = 5,508 KgCO₂e

Action plan for 2022	Target	2022 Performance
Sorting and disposing of waste as required by law; promoting reuse and recycle.	Continuing with the goal of waste sorting and recycling not less than 2022 and extending recycling into CSR activities.	Perform waste sorting and collecting data through the GEPP Sa-Ard, waste can be sorted and used for further utilization of 3,366 kilograms, representing a recycling proportion of 23.58%, equivalent to a greenhouse gas reduction of 5,508 KgCO ₂ e.

• **Test of Replacing Combustion Engine with Solar Cell Energy**

The Company has replaced engines of surveillance vehicles with energy from solar cell. In the case of parking with engine running 4 hours a day, 6 litres of fuel are consumed. A vehicle is used 300 days a year (diesel price is 35 Baht per litre as of June 2022); fuel consumption is reduced 1,800 litre per year or 63,000 Baht per year. CO₂ gas is reduced by 2.745 Kg. or approximately 5,000 Kg.CO₂ per year. As a result, the Company reduces its expenses by 63,000 Baht per year (paid off in 1.3 years). Carbon Footprint is reduced by 5 tons



per year. Carbon credits: can be sold to offset the Company's greenhouse gas emissions, creating a good image for the organization.

Action plan for 2022	Target	2022 Performance
The Company studies and tests to use solar cell energy to replace the engine in the surveillance vehicles.	Fuel consumption is reduced by 1,800 litre, or 63,000 Baht per year. CO ₂ gas is reduced by approximately 5,000 Kg.CO ₂ per year.	Tested for 3 months and saved 76.92 litres of fuel, an average of 25 litres per month. A total of approximately 800 Baht per vehicle per month. * Remark: savings depend on engine-off period and use of solar energy.



• Effluent

Monitoring effluent values to be in compliance with the standards defined by the laws on a yearly basis. In 2022, effluent values were measured at the Head Office and Din Daeng Toll Plaza. The results of both locations are consistent with the laws.

Location 1: Head Office measured on 15 August 2022 the analysis of the quality of wastewater used by operators or water from other activities in the building that is discharged from the building before being released to the public. Each measuring location has 8 parameters, which are pH, total dissolved solids (TDS), suspended solids (SS), Settleable Solids, BOD, Oil & Grease, TKN, and Sulfide. Details of measurement and analysis results are as follows:

Measurement results of effluent at the Head Office

Tested Parameters	Test Method	Unit	Test Result 1/	Standard Values 2/ 3/	Result
1. pH	Electrometric	**	7.2	5.0-9.0	☑
2. Total Dissolved Solids	TDS Dried at 180 oC	(mg./L)	254*	Addition from normal water usage Less than 500	☑
3. Suspended Solids	SS Dried at 103-105 oC	(mg./L)	<1	Less than 30	☑
4. Settleable Solids Imhoff Cone	Imhoff Cone	(mg./L/ cm.)	0.0	0.5	☑
5. BOD	5-Day BOD Test, Membrane Electrode	(mg./L)	<2	Less than 20	☑
6. Sulfide	ZnS Precipitation, Iodometric	(mg./L)	<0.2	Less than 1.0	☑
7. TKN	Macro-Kjeldahl, Titrimetric	(mg./L)	0.56	Less than 35	☑
8. Oil & Grease	Liquid-Liquid, partition-Gravimetric	(mg./L)	<5	Less than 20	☑

Location 2: Din Daeng Toll Plaza measured on 15 August 2022 the analysis of the quality of wastewater used by operators or water from other activities in the building that is discharged from the building before being released to the public. Each measuring location has 8 parameters, which are pH, total dissolved solids (TDS), suspended solids (SS), Settleable Solids, BOD, Oil & Grease, TKN, and Sulfide. Details of measurement and analysis results are as follows:

Measurement results of effluent at Din Daeng Toll Plaza

Tested Parameters	Test Method	Unit	Test Result 1/	Standard Values 2/ 3/	Result
1. pH	Electrometric	**	7.2	5.0-9.0	✓
2. Total Dissolved Solids	TDS Dried at 180 oC	(mg./L)	138*	Addition from normal water usage Less than 500	✓
3. Suspended Solids	SS Dried at 103-105 oC	(mg./L)	<1	Less than 30	✓
4. Settleable Solids Imhoff Cone	Imhoff Cone	(mg./L/ cm.)	0.0	0.5	✓
5. BOD	5-Day BOD Test, Membrane Electrode	(mg./L)	<2	Less than 20	✓
6. Sulfide	ZnS Precipitation, Iodometric	(mg./L)	<0.2	Less than 1.0	✓
7. TKN	Macro-Kjeldahl, Titrimetric	(mg./L)	0.56	Less than 35	✓
8. Oil & Grease	Liquid-Liquid, partition-Gravimetric	(mg./L)	<5	Less than 20	✓

** Announcement of the Ministry of Natural Resources and Environment regarding the standard for controlling the discharge of wastewater from certain types and sizes of buildings

** Announcement of the Ministry of Natural Resources and Environment on building types as sources of pollution that must be controlled for wastewater discharge to public water sources or the environment.

Remark : * Reference documents Wastewater Quality Measurement and Assessment Report Security Technology Center Occupational health and environment Association for Promotion of Safety and Health at Work (Thailand) under the Royal Patronage of His Majesty the King

3.4 Social Sustainability Management

3.4.1 Social Policies and Practices

The Company realizes the importance of participation in social and environmental responsibility with the belief that compliance with social and environmental responsibility will lead business, society, and environment to mutual survival. It is imperative that employees are truly and accurately understand the principles and the benefits of practice in order to seriously implement the policies related to social and environmental responsibility, and to keep up with the new, ever-changing world. The Company continuously organizes social activities with good intentions and the determination to be a part of the great power that is ready to develop and help society to improve the quality of life for Thai people to move forward on the path of security, stability and sustainability (see details on the Company website www.tollway.co.th).



Social Policy and Practice

Human Rights Policy

In 2022, the Company has announced a human rights policy by adhering to the principles of compliance with the United Nations Global Impact (UNGC), the Universal Declaration of Human Rights (UDHR), and the United Nations Guiding Principles on Business and Human Rights (UNGPs) as operation guidelines and frameworks, including employment equality regardless of sexual orientation of men, women, LGBTQ, and persons with disabilities. The Company promotes negotiation by conducting Human Rights Impact Assessments in accordance with the Human Rights Due Diligence (HRDD) process, covering risk groups that are consistent with the Company's business operations, namely employees, contractors, communities and surrounding societies, customers and partners, outsourced workers, and vulnerable groups (women, children and persons with disabilities) involved within the organization covering all business processes of the Company.

Human Rights Action Plan for 2022	Operation Result
<ul style="list-style-type: none"> • Define policies and guidelines for respecting human rights laws and principles. • Public relations for the complaint handling system https://www.tollway.co.th/th/corporate-overnance/whistleblowing-form • Caring for the human rights of employees and subcontractors in terms of safety and hygiene. • Protect, respect, and remedies the rights of employees with customer service duties, including subcontracting staff. • Provide training on human rights knowledge, especially personnel in supervisory positions and personnel responsible for taking care of employees and sub-contractors in the following year. 	<p>No complaints</p>

Responsibility Policy for Tollway Users

The Company has a plan to manage relationships both proactively and reactively with customers according to the marketing business development strategy that focuses on responding to customer needs. The Company has a CRM Platform to measure service results and develop plans for continuous customer care.

Customer relationship building plan for 2022	Operation Result
<ul style="list-style-type: none"> The Loyalty Program via LINE OA was introduced to manage customer relationships via Line Official Account: @donmuangtollway to notify benefits and organize customer relations activities, CRM in LINE OA that covers all needs in order to truly suit the customer’s usage with an easy-to-use LINE OA point accumulation system with Buzzeebees as the platform provider. Organize customer engagement activities via LINE OA, such as Tollway Rally Thank you User 2022, Tollway Lucky Way 2022, Tollway The Gift for you, etc. 	<p>27,000 Line OA members</p> <p>Satisfaction with customers was 95.16%</p>

Policy on Responsibility towards Contract Parties and Partners

The Company has a policy to treat partners/contract parties with an honest commitment to comply with the conditions given to all types of partners under the specified conditions, criteria, and laws with honesty, transparency, and equality. Executives or employees involved in procurement, hire of work, and services must disclose information and/or personal relationship characteristics of oneself, spouse, close relatives or personal relationship with any of the bidders that result in the lack of transparency in the performance of duties directly, as well as showing responsibility by not participating in the adjudication process.

Policy on Care for Employees

The Company has a goal of developing employees at all levels to jointly drive the organization according to the CAT values in order to cope with rapid changes in the global situation in terms of economy, environment and society, including changes in technology and innovation that affects business operations. Key points from the Employee Engagement Survey, which started in 2022 for the first years, were developed into a work plan for taking care of employees. In addition, the Company has provided additional welfare other than those required by law to employees such as provident funds, group health insurance, personal accident insurance, scholarships for employees’ children—which are divided into 2 parts: scholarships for elementary to upper secondary education and free scholarships without repayment to the Company under the “Tollway Employees’ Dreams to Graduates” Project, and relationship building activities such as Happy Birthday and Happy Work Life, which have been organized for 13 consecutive years this year, etc.

Policy on Occupational Safety and Health

Occupational safety and health are the business’ important responsibilities. The Company requires executives, employees, partners, and contractors to be responsible for safety of their own, colleagues, communities according to the Occupational Safety and Health Policy. In 2022 – 2023, the Company has plans to apply for ISO 45001 safety standards and process safety management (PSM) during work hours. Moreover, the Company performs risk assessment and measures to reduce health risks of operators to ensure that everyone works safely.

In 2022, training in first aid and basic life support (CPR) was provided for all executives and employees to assist those who are injured or sick from danger before taking them to the hospital. In addition, safety tools and equipment were also used for this training which is held annually, as well as arranging a visit for



operators up to supervisors at the safety knowledge development center in honor of His Majesty the King (Din Daeng) and the rehabilitation center in Pathum Thani to create awareness on accident preventions from work. As for employees to improve good health, the Company has organized a campaign to prevent and solve drug problems in the workplace by inviting officials from the Office of the Narcotics Control Board to provide knowledge on drugs to operational level employees about the abusive and dangers of drugs.

Policy on Participation in Community and Social Development

The Company has a total of 5 aspects for social responsibility guidelines in enhancing educational opportunities (Tollway Smart Way), improving the health of society (Tollway Healthy Way), enhancing road safety (Tollway Safety Way), improving quality of life (Tollway Better Way), and enhancing the environment (Tollway Green Way). The Company develops projects that are widely beneficial to society, create value and worth that can meet the needs of all stakeholders and support Sustainability Development Goals (SDGs) Goal 13: Climate action, Goal 12: Responsible consumption and production, Goal 7: Affordable, clean and modern Energy, Goal 9: Foster innovation, and Goal 8: Decent work and economic growth.

Goals and Strategies for Social Management in 2022

Goal	2022 Performance	Sustainability Strategy 2023-2027
Care for Employees		
60% Employee Engagement	Employee Engagement at 62.82%	HPO Resilience Management Strategy
Safety and Occupational Health		
The morbidity rate from all occupational diseases equal to zero	No sickness from work	HPO Resilience Management Strategy
Customer Responsibility		
Service satisfaction > 80%	Satisfaction with customers was 95.16%	Safer Road Traffic Management/ Maintenance Strategy
Participation in Community and Social Development		
Communities around the operational area		
Community Engagement Assessment >80%	Community satisfaction was 78.80%	DMT Excellence Recognition Strategy ESG Sustainability Strategy
No complaints from the wider community	No complaints	DMT Excellence Recognition Strategy ESG Sustainability Strategy

3.4.2 Social Performance

Human Rights in 2022, the Company conducted important human rights activities as follows:

1. Human Rights Policy Announcement

<https://www.tollway.co.th/storage/document/human-rights-th.paf>



2. Comprehensive examination of human rights issue

In the business operations of the Company, it has carried out comprehensive human rights work to partners and contractors by using the partner assessment tool from a comprehensive examination of human rights issues. It was found that there are no business management risks that may affect human rights.

3. Operations to prevent impacts that may arise from business operations, which the Company gives priority to the following issues:

In terms of personal data protection, the Company realizes the importance of information technology data. Later, when the Personal Data Protection Act 2019 became effective, the Company improved the policy and procedures to comply with subordinate laws under the Personal Data Protection Act enforced in 2022.

In 2022, the Company organized training on practical guidelines related to the Personal Data Protection Act 2019 in order to protect personal data effectively and to provide appropriate measures to remedy the data subject from the infringement of personal data rights. This includes protection against risks that could affect confidentiality, integrity, and availability of personal data that tends to cause negative impacts or damages at the individual or organizational level organized 3 classes to the supervisor up to the managing director, held on 29 November 2022 and 8-9 December 2022.

4. Disputes and Complaints

In 2022, from an exchange meeting once a quarter between executives and the Welfare Committee in the workplace representing the employees, the Company has no significant labor disputes, no human rights complaints, no significant violations of laws or social regulations, and no cases of being accused of creating a negative impact on social issues in the past year.

Employee Care Performance

Key Operations

In the implementation of employee care in 2022, the Company has established a continuous development plan throughout the year in terms of compensation and welfare, career advancement, working environment, and improving the quality of life of employees. Improvement of quality of life of employees, especially in terms of career advancement, the Company has managed the workforce in accordance with the business growth plan, which provides opportunities and supports job rotation for development and growth within the organization, including employee learning and development and continuously promotes learning to extend business agility.





In 2022, the Company conducted Employee Engagement Survey on all employees to use their opinions in improving and developing operations according to the expectations and needs of employees because every employee is an important driving force and the heart of increasing competitiveness of business operations. The Engagement Survey result in 2022 was 62.79%, of which will be reviewed and analyzed to further improve operations.

Summary of performance according to the process of care for employees in 2022

• Manpower planning and recruitment

The Company has manpower planning in order to be prepared to systematically meet the human resource needs of the organization so that the Company has a rate of manpower according to number and qualifications as needed, including being accordance with the strategic objectives of the business defined.

For considering recruiting new employees, the Company considers suitability in terms of knowledge, ability, experience, attitude, and good behavior expressions through the selection process in the form of a written exam, functional tests, and other related tests, including behavioral competency interviews. The Company has an employment policy without discrimination and adhering to equality of opportunity without taking into accounts political views, age, gender or disabilities as factors in considering and deciding employment. In 2022, the Company hired 11 new employees.

• Employee Development

The Company has developed a learning curriculum to continuously enhance knowledge, abilities, and skills of employees according to employee development plans in compliance with the sustainability business plan in order to promote career advancement, knowledge and understanding of management, including various skills needed to increase efficiency and to be ready for changes. The Company also emphasizes on development of individual potential of employees.

In 2022, which is still a period of adjustment to accept the New Normal from the COVID-19 epidemic situation, the Company has a policy to encourage employees to cooperate, think together and make changes in working methods for higher efficiency. Join in creating new businesses, including creating innovations in the organization according to Core Value: CAT to accommodate changes. The important training courses are organized as follows:

- The 5-year sustainability business plan preparation (2023-2027) course to deliver value for moving forward to sustainability to various stakeholder groups. The target groups range from department managers to senior executives with 34 participating employees.
- The Digital Asset Knowledge Sharing course for the Company's executives to learn and understand digital assets, which is currently playing a role in finance and investment, including changes that may arise in the future for executives at the level of department managers and up. A total of 38 employees attended the course.
- The Resilience Management course was offered as at present, there are rapid changes in business, social, economy, and technology and thus flexible management is required to have the ability to adapt regardless of situations. The course was arranged for executives at the level of department managers to managing directors to understand the various changes that will happen. This will be used as a strategy for managing personnel in the department according to the strategic framework of HPO Resilience Management. A number of 40 employees attended the course.
- The course in personal development in service work was organized for toll collectors to learn techniques for providing impressive services with personality, gestures, speeches and tones when servicing the customers. A total of 26 employees attended the course.

- The course on system and equipment of Smart Project was organized because the Company has installed the traffic control and surveillance system on the tollway covering all areas of the Company using artificial intelligence (AI) technology to help manage and analyze data for developing business and various systems in order to be more efficient in customer service. The course was also offered to related operators to have non-stop knowledge and understanding with the information technology and intelligent traffic department and the maintenance department as the target group. A number of 21 employees attended the course.
- The course on operation and maintenance of M-Flow Equipment and Sensors and how to use the M-Flow Software was organized so that relevant operators know the details of how the entire system works, how to operate each equipment, onsite system, and maintenance of M-Flow equipment, including the use of various programs of M-Flow Software, checking transactions, and retrieving reports of operation, etc.
- Electricity vehicle system and safety course to support the service of customers who use electric vehicles. The Company therefore proceeds to upgrade the potential, knowledge, and skills regarding electric vehicles so that operators can work correctly according to the principles because electric vehicles are systems that have different working principles from conventional cars on the following topics:
 - Basic technology on electric vehicles
 - Electric vehicles and electric vehicle dynamics
 - Electric vehicle
 - Electrical safety in high-voltage battery assembly work
 - Assistance for electric vehicles on Don Muang Tollway

to executives and operators at all levels of the traffic facilitation and management department such as rescue workers, special operations staff, etc. A total of 88 employees attended the course.

- The company recognizes the importance of employee learning that can be accessed to learning anytime, anywhere with the ability to choose to study from anywhere at any time as a response to the changes in learning methods in today's era. The e-Learning system has been implemented in the organization by designing courses according to functional competency and skills necessary for now and the future to Up skill & Reskill, which is a comprehensive development of personnel coupled with Soft Skill Courseware. The target for 2023 is that every employee in the organization receives 15 courses per year of training through the E-Learning system.
- Master's degree scholarships for supervisors up to the managing director, which is a project that the Company carried out every year to provide opportunities for employees to develop their knowledge and grow in their career paths. Interested employees can apply for the program throughout the year. In 2022, there were 2 executives who graduated with a master's degree.

• Evaluation and Remuneration Management

The Company pays attention to employee retention because it is the main factor that will help create performance to achieve goals continuously.

• Performance evaluation

The Company evaluated KPIs and behavior, and also begun adjusting the KPIs of employees to be more in line with the goals of the organization so that every one can see the importance of their own work, as well as participating in driving the organization's goals which is an important part that will lead the organization towards High Performance Organization (HPO).



• Promotion

There is a Fast Track promotion system, which allows employees to pass the promotion test according to the criteria set by the Company.

• Remuneration Management

Management of remuneration for employees appropriately at each level is important as it is a part of relationship building and becoming a highly efficient organization. The Company has surveyed compensation and welfare benchmarks among similar industries, including external conditions to review and improve the compensation criteria to be appropriate. In addition, there is continuous review and development in order to be able to manage compensation in line with the trends and needs of employees. There is no gender difference in determining remuneration and job promotion of employees. The Company considers knowledge and competency in accordance with the expectations of each job level.

• Organization engagement

2022 is the first year in which the Company conducted an Employee Engagement survey using Aon Hewitt's Engagement Model for Engagement Outcome surveys, consisting of taking about the organization (Say), staying with the organization (Stay), and devoting work to the organization (Strive), and determining the engagement factors according to the context of the organization in 6 aspects: 1) Job Responsibility, 2) Compensation and Benefit, 3) Workplace Environment, 4) Growth Opportunity, 5) Management Practices, and 6) Leadership & Culture. From the survey, a total of 319 surveys were returned from a total of 388 employees with a response rate of 82%. The overall level of commitment to the organization was 62.79%.

The Company faced many challenges in 2022, especially from the COVID-19 pandemic. Therefore, the strategy to create engagement in the organization has been adjusted by focusing on taking care of employees. The major operations include:

- Support the Work from Home policy in a form of Hybrid Workplace to reduce the risk of infection.
- Provision of alternative vaccines of 3rd and 4th doses for employees.
- Conduct screening test with Antigen Test Kits (ATK) every week.

• Actions responding to employee engagement assessment results

Employee Engagement Assessment results revealed that the topics employees paid most attention to were compensation and welfare, career advancement, organizational management, and working environment. In terms of career advancement, the Company has improved in 2022 on the fast track promotion system, which will allow the employees to pass the promotion test process according to the criteria set by the Company. For other aspects, the Company will consider improving them for the next year.

• Communication with employees

According to the Company's Work from Home, Hybrid Workplace policy and every employee adhering to social distancing measures, communication is a crucial element that must be transformed in order to maintain a connection between the organization and its employees. The Company also makes employees aware of its direction with many communication channels including:

- Town Hall activities to communicate policies and strategies of business operations from the Managing Director (MD).
- E-mail communication within the organization.
- Add channels and create new forms of communication in order to connect the relationship between employees and the organization, including Facebook page : HR Tollway , Line Official : HR Tollway, Intranet, etc.
- Create recognition through various activities to encourage executives and employees to express their gratitude and admire each other such as senior executives congratulating newly master's degree graduated employees who received the Company's scholarship and the Happy Birthday and Happy Work Life activity for the 13th consecutive year. In addition to the congratulations, it also gives direction of work and the expectation that the organization has towards the employee to create motivation among them.

• Safety and Occupational Health

Performance

- The morbidity rate from occupational diseases of all employees is equal to zero.
- In 2022, the safety hour reached 5,000,000 hour-person with no lost time accidents. The Company has the Safety, Health and Environment in the Workplace Committee consisting of representatives from employees at the operational level not less than 50 percent of the total committee. The representatives of operational level employees are elected separately according to their line of work so that there are representatives of employees from all lines of work. The committee requires a meeting at least once a month to be a platform to receive information from employees in each line of work through representatives, as well as informing news along with monitoring the progress of operations. This is an appropriate requirement and in accordance with OSHA (3990-03 2020: The Occupational Safety and Health Administration). The results of operations according to the goals are summarized as follows:
- Compliance with measures to prevent the spread of COVID-19

The ongoing situation of the spread of COVID-19 from 2021 upto 2022 has led the Company to enhance various measures to prevent the spread of the virus within the workplace such as strictly screening of employees and contractors when entering work site including temperature measurements and ATK testing on employees working shifts and other employees on a weekly basis; and cleaning work areas with disinfectant spray and UV light. In addition, the Company procured sanitary masks for every employee, set up alcohol spots for hand washing covering all areas, adopted a work from home policy to reduce risks of being infected when traveling with public transportation. Moreover, the Company supported the provision of alternative vaccines for employees and established guidelines to prevent infection, such as wearing protective masks at all times when working and meeting with others, keeping the distance, washing your hands regularly, and publicizing to educate, and recommending ways to prevent the spread of COVID-19 on a regular basis.

- The morbidity rate from all occupational diseases of all employees equal to zero

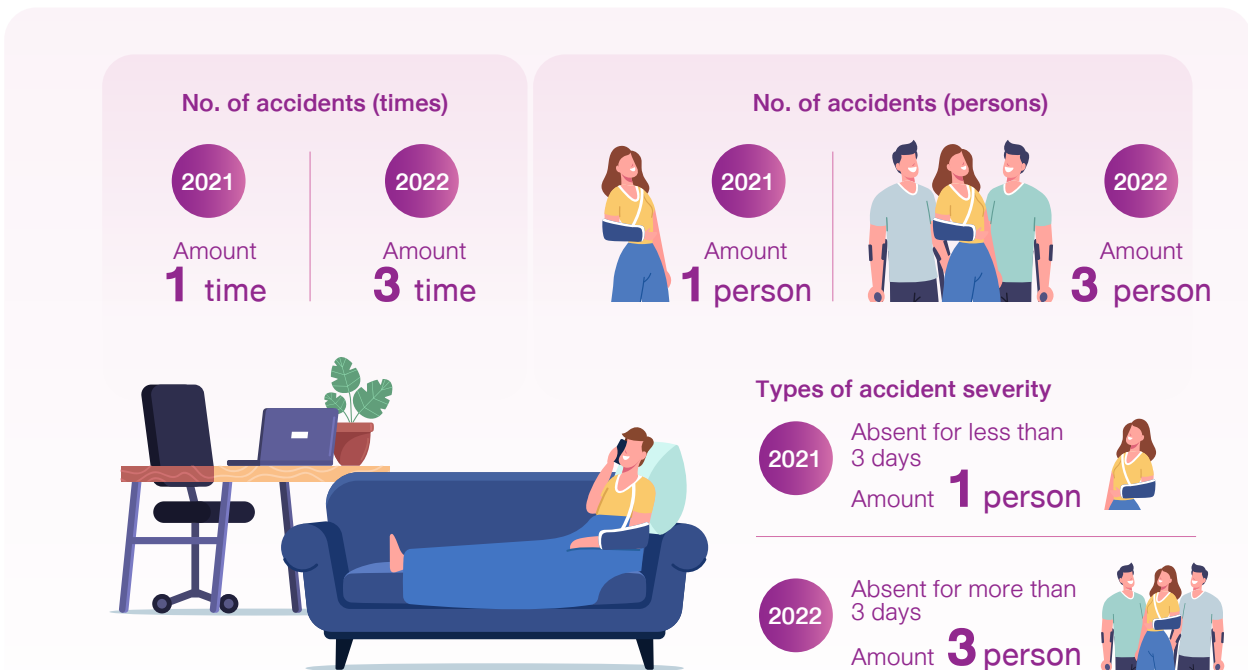
In addition to taking care of employees and contractors according to the COVID-19 prevention measures under normal operations, the Company used a proactive occupational health process by conducting a health risk assessment of workers covering all areas of the Company to lead to the determination of appropriate control and risk reduction measures, including monitoring and measuring the working environment regularly such as measuring light, noise, heat, and chemicals in the working areas, etc. as the Company's measures used for assessing safety control and prevention measures that may cause an impact on the health of the workers by comparing the results obtained from the measurements against the specified standard values. In the event that the measurement results exceed safety standards, the Company has continuously designed



and improved the work area to provide safe working conditions, including the preparation of improvement plans and systematic monitoring. In addition, the Company has provided professional safety officers to give advice and recommendations to employees and contractors on occupational health issues at all times, as well as monitoring employees' health as follows:

- Health checks of employees since the start of work
- Take care of employees' health with annual health check-ups, including general health check-up/ health check-up based on occupational health risk factors, health check-up list according to risk factors, and analyze the results of health check-ups of operations from factors inside and outside the workplace. If any employee is found to have abnormal health check results, they must see a doctor for advice on taking care of their health continuously. Moreover, the Company arranged for additional examinations according to the risks of each age group by adding Electrocardiography (EKG) examination and measurement of IgG antibody response to Spike protein in the employee health check-up program to cover diseases that may be caused by daily life and to allow employees to continuously monitor their health due to the spread of COVID-19.
- Organize occupational health measures for contractors such as preparation of work areas, procedures, protective equipment, and safety knowledge promotion.
- Organize emergency drills for the Company's rescue team to practice and have understanding of their roles and responsibilities, and to achieve flexibility in coordinating together and more effective.

Accident statistics for 2021 - 2022




Performance on participation in community and social development




In 2022, community and society satisfaction assessment result was at 78.8%


Key performance

The Company supports the Sustainable Development Goals (SDGs), whereby sustainability development activities are what the Company gives importance under the guidelines of giving back to the society in all 5 aspects, which can be summarized below:

No.	Guidelines for giving back to society	Activity/Project	Result
1.	<p>Tollway Smart Way Elevation of educational opportunities</p>  <p>SDGs Goal 1 : End poverty in all its forms everywhere.</p>  <p>Goal 4 : Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p>	<p>1.1 Award scholarships to the Dream for Achievement Foundation 2022.</p> <p>1.1.1 Faculty of Education, Chulalongkorn University</p> <p>1.1.2 Faculty of Law, Thammasat University</p> <p>1.1.3 Faculty of Political Science, Chulalongkorn University</p> <p>1.1.4 Faculty of Medicine, Mahidol University</p> <p>1.1.5 Faculty of Science, Chulalongkorn University</p> <p>1.1.6 Faculty of Science, Mahidol University</p> <p>1.1.7 Faculty of Science, Thammasat University</p> <p>1.1.8 Faculty of Engineering, Chulalongkorn University</p> <p>1.1.9 Faculty of Engineering, Mahidol University</p> <p>1.1.10 Faculty of Economics, Kasetsart University</p> <p>1.1.11 Faculty of Economics, Thammasat University</p>	<p>Awarded a total of 25 scholarships.</p> <p>3 scholarships</p> <p>1 scholarship</p> <p>1 scholarship</p> <p>7 scholarships</p> <p>3 scholarships</p> <p>2 scholarships</p> <p>1 scholarship</p> <p>3 scholarships</p> <p>2 scholarships</p> <p>1 scholarship</p> <p>1 scholarship</p>
		<p>1.2 The Savings Project, in which the Company cooperated with the Faculty of Management Sciences, Sriracha Campus, Kasetsart University.</p>	<p>To educate 80 grade 4 students about money savings and teach about credit-debit accounting at Ban Chak School in Sriracha, Chonburi.</p>
		<p>1.3 “Kathin at Wat Dong Lakhon 2022” to contribute funds for the construction of school buildings, school lunches, and scholarships for underprivileged students at the College of Industrial Technology and Commerce at Wat Dong Lakhon.</p>	<p>A total donation of 255,999 Baht.</p>
2.	<p>Tollway Happy Way Elevation of a drug-free community</p>  <p>SDGs Goal 3 : Ensure healthy lives and promote well-being for all at all ages</p>	<p>2.1 Provided preliminary drug testing kits.</p> <p>2.1.1 Phu Khiao Prison</p>	<p>1,500 kits</p>



No.	Guidelines for giving back to society	Activity/Project	Result
3.	<p>Tollway Safety Way Elevation of road safety</p>  <p>SDGs Goal 11 : Make cities and human settlements inclusive, safe, resilient and sustainable</p>	<p>3.1 Installed solar-powered warning signs and painted zebra crossings because there are no warning lights and traffic signs in front of the school since there are many passing cars, which is risky and dangerous for the students when crossing. Therefore, the Company installed for the following schools:</p> <p>3.1.1 Wat Mongkhon Rat School, Pathum Thani</p> <p>3.1.2 Tripat School, Pathum Thani</p> <p>3.1.3 Siriwat Vocational College, Nakhon Nayok</p> <p>3.1.4 Wat Prem Prachakorn School</p>	<p>2 locations (more than 900 personnel, students and people in the community)</p> <p>2 locations (more than 1,500 personnel, students and people in the community)</p> <p>2 locations (more than 700 personnel, students and people in the community)</p> <p>2 locations (more than 3,000 personnel, students and people in the community)</p>
		<p>3.2 The “Know the Fire 2022” Project was organized for Sulakhana School, Pathum Thani, as well as installing 18 fire extinguishers.</p>	<p>Training to educate 188 teachers, staff, and students on the use of basic fire extinguisher.</p>
4.	<p>Tollway Better Way Elevation of the quality of life in society</p>   <p>SDGs Goal 2 : End hunger, achieve food security and improved nutrition and promote sustainable agriculture.</p> <p>Goal 3 : Ensure healthy lives and promote well-being for all at all ages.</p>	<p>4.1 On National Children’s Day 2022, the Company donated Green Way notebooks, stationeries, toys, snacks, milks, and Tollway drinking water to:</p> <p>4.1.1 Thung Song Hong Community</p> <p>4.1.2 Suan Pak Community</p> <p>4.1.3 Wat Lak Si Community</p> <p>4.1.4 Thung Song Hong Housing</p> <p>4.1.5 Pin Charoen 1-2 Community</p> <p>4.1.6 Pipornpong 1 Community</p>	<p>700 sets</p> <p>50 sets</p> <p>50 sets</p> <p>50 sets</p> <p>100 sets</p> <p>50 sets</p>

No.	Guidelines for giving back to society	Activity/Project	Result
		4.2 Sponsored the 2022 National Children’s Day activities for the 13 th Highway Office employees’ children.	Donated 300 sets of school supplies/toys.
		4.3 Project to promote and develop the quality of life of persons with disabilities in Thailand under Section 35 in collaboration with TCC.	2 persons with disabilities in Nakhon Ratchasima.
		4.4 The “Bottle to Help Doctors” Project to collect 600mL-sized plastic water bottles, in which 18 bottles can be recycled into 1 PPE coverall. Such PPE coveralls can be washed and reused about 20 times. This helps reduce infectious waste from using a one-time suit. In addition to being a part of helping support the work of medical personnel, it also plays a part in eliminating the increasing amount of plastic waste and can help solve environmental problems in another way.	More than 22,000 bottles were collected and more than 1,200 PPE coveralls were produced.
		4.4 Donated relief bags to flood victims: 4.3.1 Lak Si District Office 4.3.2 Don Muang District Office 4.3.3 Rangsit City Municipality 4.3.4 Bangban Subdistrict Municipality, Nakhon Si Ayutthaya	100 sets 50 sets 50 sets 100 sets
5.	<p>Tollway Green Way Elevation of the environment</p>   <p>SDGs Goal 13 : (Climate Action) Take urgent action to combat climate change and its impacts</p>	5.1 The Green Way Library Project receives donations of used toll receipts and all kinds of used papers to be recycled into new notebooks and then donated to schools all throughout the country. In 2022, the Company donated Green Way notebooks to the following schools:	



No.	Guidelines for giving back to society	Activity/Project	Result
	<p>Goal 15 : Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p> <p>Goal 17 Partnership for the goals</p>	<p>5.1.1 Ban Din Daeng School, Uttaradit</p> <p>5.1.2 Mae Pang School, Mae Hong Son</p> <p>5.1.3 Ban Saitaohoi School, Nakhon Si Thammarat</p> <p>5.1.4 Chawang School, Nakhon Si Thammarat</p> <p>5.1.5 Ban Klooi Non Sombun School, Roi Et</p> <p>5.1.6 Ban Samrong Pracharat School, Surin</p> <p>5.1.7 Ban Kut Hoi Kab School, Khon Kaen</p> <p>5.1.8 Ban Nam Man School, Loei</p> <p>5.1.9 Ban Wang Yao School, Prachuap Khiri Khan</p> <p>5.1.10 Ban Sa Narai School, Uthai Thani</p> <p>5.1.11 Wat Kaen Chan School (Chan lang Tubtim Ratbamrung), Samut Songkhram</p> <p>5.1.12 Wat Khao Phra School, Suphan Buri</p>	<p>100 notebooks</p> <p>100 notebooks</p> <p>160 notebooks</p> <p>160 notebooks</p> <p>100 notebooks</p> <p>180 notebooks</p> <p>100 notebooks</p> <p>100 notebooks</p> <p>100 notebooks</p> <p>140 notebooks</p> <p>200 notebooks</p> <p>160 notebooks</p>
		<p>5.2 Care the wild Project jointly with SET, the government sector, and the community promoting sustainability in the dimension of environmental management together by planting trees for the forest and taking care of the trees to survive 100% by tracking their growth continuously for 6 years.</p>	<p>Ban Nong Pling Forest Community in Kanchanaburi of 50 rai, planting of 10 rai a year for a period of 5 years (2022 – 2026).</p>

Stakeholder participation in social activities

CSR Activities Report 2022 divided by stakeholder groups:

1) Don Muang Tollway users

Tollway Rally Thank You User 2022 activity with participation of 80 tollway users.



Tollway Lucky Way 2022 activity with 540,000 lucky draw receipts and a total prize value of 1.2 million Baht.



2) Shareholders – Investors

“Opportunity Day” activity where listed companies meet with the investors quarterly, or 4 times a year.





3) Project Owners

Sport activities with the Department of Highways with a total of 90 participants.



4) Employees

The Happy Birthday, Happy Family Project, which is held 12 times/year with a total participation of 390 employees.



Certificate and award program for employees who have worked with the Company for 30 years, 25 years, 20 years, and 10 years. A total of 40 employees.



Award scholarships to employees' children in 2022. A total of 35 scholarships.



The "Tollway Employees' Dreams to Graduates" Project, which the undergraduate continuing scholarship program. A total of 4 scholarships.



5) Surrounding communities, society, and environment

5.1 Donated flood relief bags to Lak Si District Office. A total of 200 bags.



5.2 Donated flood relief bags to Don Muang District Office. A total of 100 bags.



5.3 Donated flood relief bags to Rangsit City Municipality. A total of 50 bags.



5.3 Donated flood relief bags to Bangban Subdistrict Municipality, Nakhon Si Ayutthaya. A total of 50 bags.



5.4 The “Know the Fire 2022” Project was organized for Sulakhana School, Pathum Thani.

- 1 time/year
- Number of personnel and students = 197

5.5 Installed warning signs and painted zebra crossings for Wat Mongkhon Rat School, Wat Prem Prachakorn School, and Tripat School, Pathum Thani.



- Wat Mongkhon Rat School has a total personnel and students of = 165
- Wat Prem Prachakorn School has a total personnel and students of = 729
- Tripat School has a total personnel and students of = 134

5.6 Donated gifts and school supplies to representatives of communities surrounding the Company such as Thung Song Hong community, Lak Si community, Thung Song Hong housing, Pin Charoen community, Chatuchak Child Development Center, Pipornpong community, and Lak Si District Office.



- A total number of communities = 7
- A total donation of 1,000 sets

**5.7 Kathin at Wat Dong Lakhon 2022
Number of personnel and students = 216**



Performance of customer responsibility

The Company has continued to develop its services to meet the satisfaction of tollway users through complaint channels in various forms, namely Tollway Call Center 1233, Facebook: Don Muang Tollway, Website: www.tollway.co.th and Line OA: @donmuangtollway. The Company has managed the complaints of users in a timely manner, followed up on problem solving and records stored in an electronic system as a personal data protection standard.

The Company places importance for hygiene and safety of customers and improvement of safety as follows:

Customer Service of Tollway Users with Excellence

In 2022, the Company improved and developed Manual Toll Collection (MTC) and Electronic Toll Collection (ETC) systems to support the use of the DOH's M-Pass, the EXAT's Easy Pass, and the EMB Contactless payment system.

The Manual Toll Collection (MTC) system is the original form of payment in cash with toll collectors accepting both cash and coupons. In addition to replacing the entire system with new equipment to enhance efficiency, the program has been improved and developed to support other forms of toll payment in the future. Previously, the Company had 61 MTC channels but with the additional development of ETC system, the MTC-only channels were reduced to 29 and the ETC-only channels of 13.

In addition, the Company developed another 19 channels at every toll plaza to be MTC/ETC Switch Mode to facilitate different payment methods at different times of the day. This switch mode can support both cash and electronic payments, which has more flexibility in providing services by immediately meeting the needs of the tollway users.

In the cash toll collection lanes, the Company has also cooperated with Krungthai Bank to develop a

form of payment in line with the context of a cashless society by accepting EMV Contactless (Europay Mastercard and Visa) cards as efficient payment standards and safety. An EMV card transaction through an EMV payment machine at toll gates will immediately be identified as a verified and approved transaction. It connects all payment systems with a single international standard card, both debit and credit cards of every bank with a Pay Wave Contactless symbol, which is a fast, easy tap and go payment.

Marketing promotion and customer engagement activities

In 2022, the Company organized activities to thank Don Muang Tollway users continuously. The Company used technologies developed by Loyalty Program via LINE OA to manage customer relations via Line Official Account : @donmuangtollway to announce benefits and customer relations activities in 2022. Although Line is one of the most highly used platforms in Thailand, doing activities on LINE requires expertise with CRM in LINE OA to cover all needs in order to truly suit the customer's usage with an easy-to-use point accumulation system with Buzzebees as the platform provider. In the future, the CRM system can support E-Payment and can be used with Point-of-Sale (POS) cash register and application. The CRM system is another channel to promote the Company's marketing via the Tollway Loyalty Platform via Line OA Channel project and tollway users can apply to join point collection since 15 August 2022. Currently, there are 27,000 members in the system.





In 2022, the Company organized activities that are open for tollway users to participate as follows:

- 1) **Tollway Rally Thank you User 2022** is an activity to thank tollway users for their constant support. In 2022, an online form has been used to invite friends in becoming the Don Muang Tollway family, and accumulated points can be used to exchange for participating in the activity via Line OA @donmuangtollway. The activity has been held continuously for 7 consecutive years. Under this year's theme "Tollway Rally Thank you User 2022: I plant, you cook. Pay homage to Phra Nilmanee Sripanwa", the users visited Baan Tantawan Foundation for Children to help make vegetable plots and planting vegetables used to cook lunch for children, as well as helping clean the venue and playground. This activity was held on 24-25 September 2022, in which 40 tollway users redeemed their points to participate in this event.



- 2) **Tollway Lucky Way 2022** has been organized continuously for more than 14 years to express gratitude to tollway users who always support the use of Don Muang Tollway service. The Tollway Lucky Way 2022 project has 160 prizes worth more than 1 million baht from more than 500,000 receipts sent to the lucky draw. The event was held on 10 December 2022 at the Future Park Rangsit shopping center and announced the list of lucky winners through print media on

20 December 2022. In order to support the Green Road policy, reducing pollution in front of the toll plazas, the Company thus offers special privileges to tollway users using M-Pass / Easy-Pass cards by multiplying their points by 2 immediately.



- 3) **Tollway The Gift for you** is held at the end of the year during 1 – 31 December 2022. The Company organized activities to give New Year's gifts to show their gratitude after launching the Line OA @ donmuangtollway service for users to collect their points since last August by



using the remaining points from the Tollway Lucky Way 2022 activity to exchange for prizes worth over 200,000 Baht.

- 4) Don Muang Tollway users who use a Krungsri credit card to make toll payment can earn 10% cash back via the U Choose application in the month that the card is used for payment. However, the redemption of credit cash back is under the conditions specified by the bank during 1 June – 31 December 2022.
- 5) Increase purchase channels of toll coupons by setting up a distribution point at Future Park Rangsit, 2nd floor, Robinson side, in front of AIS, open daily from 11.00 AM – 8.00 PM; and can be purchased at the Company's information counter at the head office.

Improvement of service efficiency

In order to meet the needs and create satisfaction for tollway users, there is a tollway management to upgrade service efficiency to meet the standards with convenience, speed and safety for users in order to ensure confidence, impressiveness, and return to use the service regularly. Service development is divided into 3 main services: toll collection, traffic facilitation and management, and maintenance. Each service has an operation that focuses on excellence as follows:

1. Toll Collection

Currently, the Company still uses toll collectors to collect fees and users can pay tolls in 4 ways via 2 channels:

- 1.1 Cash system: payment can be made by cash, coupons, EMV cars, which can be made by credit or debit cards with the Pay Wave symbol, which was opened for service on 1 April 2022, and payment via QR Code.
- 1.2 Electronic toll collection system: the service was launched on 23 April 2022, in which the Company designed to have at least 1 automatic lane per toll plaza and can accommodate approximately 40% of the traffic volume.

No.	Service Efficiency	Target	Performance
1.	The ability to collect tolls during rush hours with cash collection system	450 vehicles/ hour ^{*(2)}	on target
2.	The ability to collect tolls with ETC system	800 vehicles/hour ^{*(3)}	on target

*Remark

1) In 2022, a new toll collection system was launched to support various forms of payment, namely credit card and QR code, which have different service time than cash collection and coupons.

2) The speed of cash toll collection is higher than 450 vehicles/hr when the average monthly traffic volume on the Original Tollway is more than 83,000 vehicles/day.

3) Automatic toll collection speed, according to ETA, about 800 vehicles/hr, which increases the service efficiency of the toll plaza.

4) In 2022, the average daily traffic volume was still affected by COVID-19 prevention measures, causing most average traffic volumes to be lower than the service capacity of the checkpoints, which does not cause queuing at the checkpoint

2. Traffic facilitation and management

Traffic facilitation and management of tollway is managed as follows:

(1) Operation Control Center is an operational control center that acts as a medium for internal coordination with rescue agencies, traffic, forklifts, road maintenance, and collecting toll fees as well as coordinating with police officers working on the Don Muang Tollway and Vibhavadi Rangsit Road. OCC also coordinates traffic reports with JS 100 and FM 91 to provide services to users 24 hours a day.



(2) **Traffic management** daily tasks for the Operations Control Center staff are to coordinate with the Company’s traffic staff in managing the traffic in front of the toll gates and on the tollway for convenience, speed and safety for users, especially during rush hours or areas with heavy traffic.

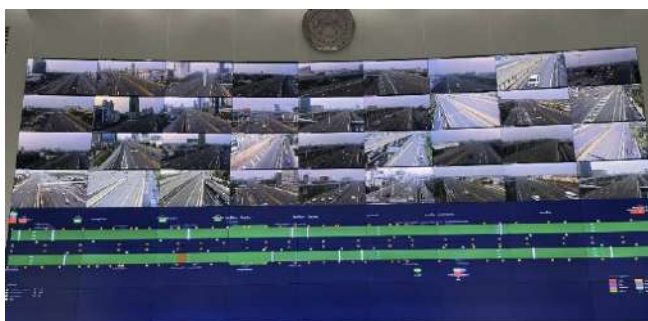
(3) **Rescue service** in case of accident or broken down vehicles on the Tollway, the well-trained rescue personnel will assist and provide initial repair for the vehicle to continue running. If the problems cannot be solved, it will be towed down from the Tollway to the at-grade road using the nearest exit.

There is a special rescue unit responsible for users in the events of accident such as car crash, fire, injuries in various ways including overturn, unconsciousness, trapped in the car. The special rescue unit is equipped with rescue vehicles, fire engines, and utility vehicles for transporting patients and providing initial assistance.

Key Performance Indicators (KPIs) for traffic management and rescue services are listed below:

No.	Service Efficiency	Target	Result
1.	Travel time to the scenes of accident	Average time within 12 mins	1,451 times
2.	Time for resolving incidents blocking 1 lane of traffic	Average time within 60 mins	230 times
3.	Time for resolving incidents blocking 2 lanes of traffic	Average time within 90 mins	7 times Average of 68.4 mins

For traffic control and surveillance system on Utrapimuk Tollway, or the Smart Project, by the Bureau of Highway Safety, Department of Highways studied guidelines for establishing the Highway Traffic Operations Center (HTOC) with the aim to solve traffic problems, facilitate and safety of tollway users by coordinating to request data connection to integrate traffic management services through the HTOC and successfully linked data from the Company’s OCC to the Department of Highways. As for other developments, the Company has developed a Video Analytic System to be more accurate using Deep Learning technology to improve efficiency, which has been completed and implemented since 1 August 2022. However, the Company continues to adjust and use technology to learn from real situations to make the system become more accurate.



3. Maintenance

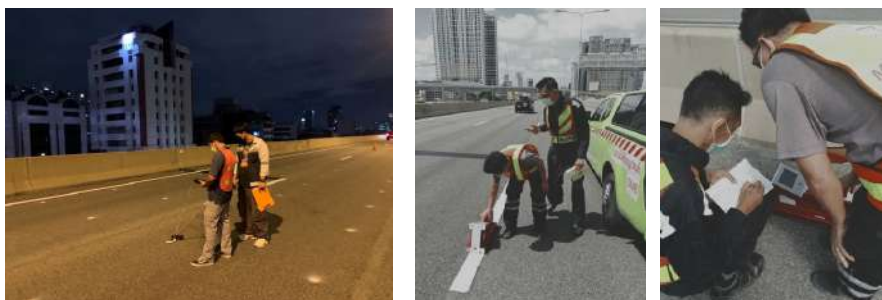
To perform maintenance in accordance with the engineering standards set by the Department of Highways as follows:

1) Maintenance of routes and equipment, including preventive maintenance (PM), repairment of pavement with smoothness and friction according to standards set by the DOH, repairment of holes between expansion joints, maintenance of standard traffic reflectors, inspection of structures and foundations, maintenance of equipment such as parapets, road signs, and drainage systems.

2) In order to improve traffic flow, an island at the National Memorial toll plaza was dismantled and removed so that the traffic can enter the National Memorial 2 toll plaza more conveniently. Eleven traffic signs leading to toll plaza entrances have been upgraded to new signs with a new coat of paint on the steel supporting frames. Messages on the signs have also been updated by improving the colors and marking to meet the relevant standards and in line with improvement of toll collection system. There are signs showing toll collection in each lane, as well as recommended channels for trucks as well. Improvements at this National Memorial toll plaza are used as a model in improving other toll plazas.



3) Maintenance of lighting systems, including brightness and uniformity of the lights on Don Muang Tollway are measured annually to meet the standards set by the Department of Highways, including regular preventive maintenance.



Inspection of brightness on the routes

Inspection of traffic reflector

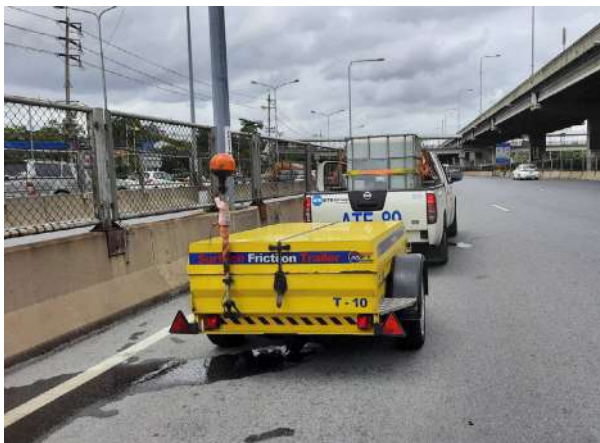
For maintenance, the Company has set Key Performance Indicators (KPIs) for operations. The overall performance is in accordance with the standards as follows:

No.	KPI	Frequency	Performance
1.	Structural strength assessment inspection	Every 5 years	✔️ comply to standards
2.	Visual Inspection	Annually	✔️ comply to standards
3.	International Roughness Index	Annually	✔️ comply to standards
4.	International Friction Index	Annually	✔️ comply to standards
5.	Routine pavement inspection	When notified, holes less than 15cm are repaired within 48 hours	✔️ comply to standards
6.	Traffic reflector inspection	Annually	✔️ comply to standards
7.	Traffic sign reflector inspection	Every 3 years	✔️ comply to standards
8.	Regular inspection of lighting fixtures	Daily	✔️ comply to standards
9.	Continuous power outages	Daily	✔️ comply to standards
10.	Light intensity inspection	Annually	✔️ comply to standards

In order to check the roughness and friction of the pavement, an external specialist has been hired to perform the measurements using standardized testing tools as follows:

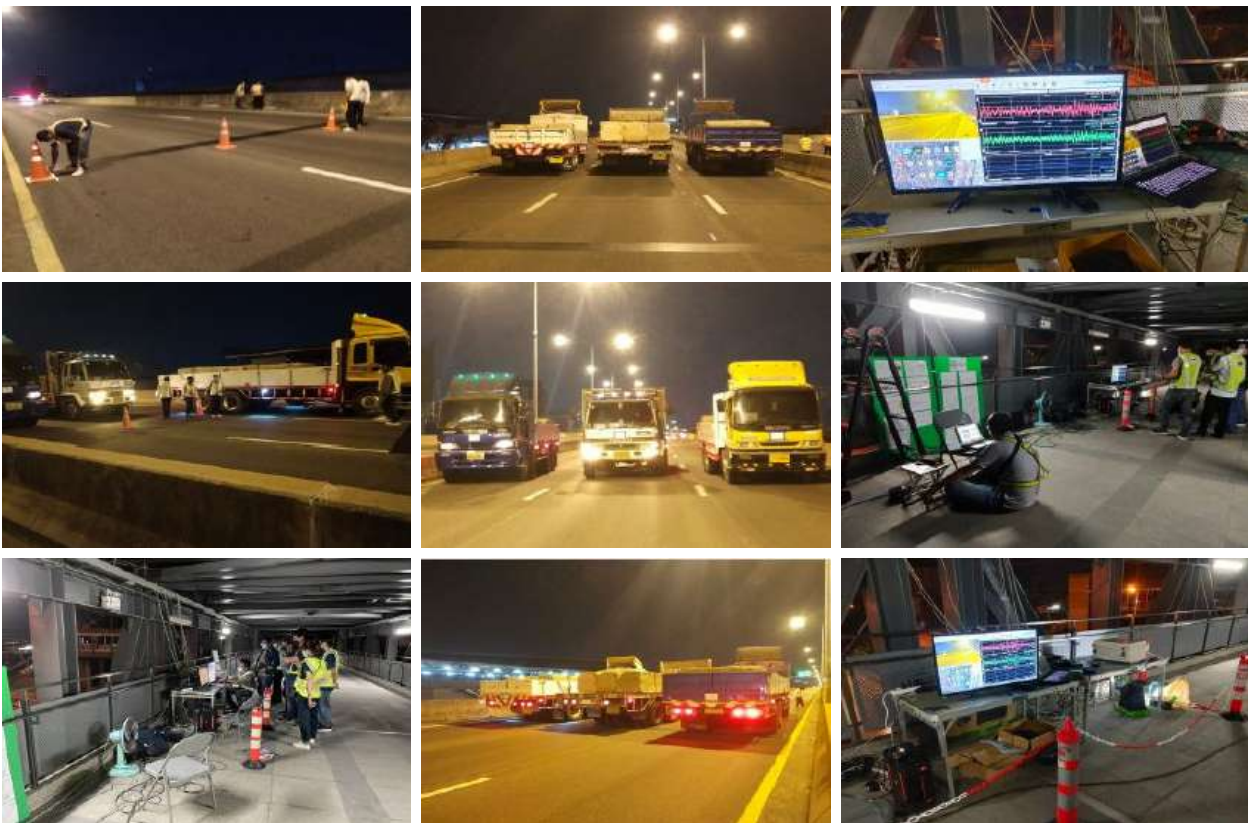
- Skid Resistance test with Fixed Slip tool according to ASTM E247 wet result standard for calculating International Friction Index (IFI) with reference to GPS coordinates.

- Continuous International Roughness Index (IRI) and Rutting measurements using Laser Profiler tool according to ASTM E950 standard with reference to GPS coordinate together with a wide-angle front view video shooting.



- Present the inspection results with a computer system, displaying IRI, gutting, and IFI values, locations on map, and images of boundaries and road surfaces in video format, in which area characteristics are shown on the same screen.

- The Company has inspected the completeness and assessed the condition and performance of the Utrapimuk Tollway. The scope of work consists of 1) Visual & Instrument Inspection, 2) Bearing Pad Inspection, 3) Geometry Measurement, 4) Structure Behavior Measurement and Load Test, and 5) Structure Capacity Assessment. Results of these inspections have been used as a guideline for planning maintenance work, which includes corrosion prevention of parapet, steel structure paint maintenance, truck weight control, and traffic maintenance. Benchmarks for structures are created to monitor long-term behaviors of structures and for comparison after disaster. Summaries of inspection: it was found that the steel structure has a paint thickness below the threshold but no cracks were found; the concrete structure found no significant damage that affects the stability of the structure and only deterioration from general use; found no deformed or slipped beam rubber pads that need to be repaired with flexibility as required, but should be monitored periodically; the original structure can support the current load; strengthening of the structure is limited in the foundation but there should be traffic management for trucks to use the left lane.



Tollway structure strength test

Risk Management on Critical Incidents

Accidents and emergencies that occur on the tollway may cause loss and damage to property or life of users and the Company and can happen anywhere, anytime along the travel routes. Therefore, the Company has reviewed factors contributing to incidents on the tollway that can be appropriately managed on a regular basis in order to formulate and adjust guidelines for managing risks that may cause accidents or emergencies on the tollway, including setting up a systematic approach for managing emergency responses and rescues to ensure that users are safety during their journeys, as follows:

(1) Communication of travel information and alerts to toll users regarding traffic conditions, actions to take when encounter traffic on the tollway, and other useful information via various channels e.g. Facebook, Variable Message Signs (VMS), Over Speed Warning signs, Matrix Signs, JS100, FM91, etc. as to provide information to users for decision-making in managing their journeys appropriately and safely.



Notification of lane closure and display of recommended speed via the Matrix Sign



Notification of traffic incidents and news via Variable Message Sign

(2) Environment Management to Ensure Safety

- Tollway safety inspection is conducted regularly to identify points of risk of accidents on the tollway in order to prevent and/or reduce the severity of accidents that may occur.

Examples of issues that the Company conducts inspection on		
<ul style="list-style-type: none"> Approaches and cross-sections of elevated roads such as bends and elevated curves vs. traffic speed, distance of visibility, width and number of lanes suitable for traffic and vehicle types, etc. 	<ul style="list-style-type: none"> Characteristics of intersection/connector such as clarity to prevent confusion, visibility, traffic control at junctions, appropriate equipment or signs at junctions, slope of connector, etc. 	<ul style="list-style-type: none"> Traffic signs and navigation signs such as type and installation, visibility, mounting of devices on tollway, and rumble strips, etc.
<ul style="list-style-type: none"> Drainage: appropriate pavement slope for drainage of the tollway. 	<ul style="list-style-type: none"> Road surface such as damages on the surface, etc. 	<ul style="list-style-type: none"> Lighting such as distance of installation, level of brightness, etc.
<ul style="list-style-type: none"> Others such as reflective light interfering the drivers. 		

- Analysis and improvement of hazardous points by investigating the causes, determining corrective guidelines, and implementing improvements at these points in an appropriate manner.



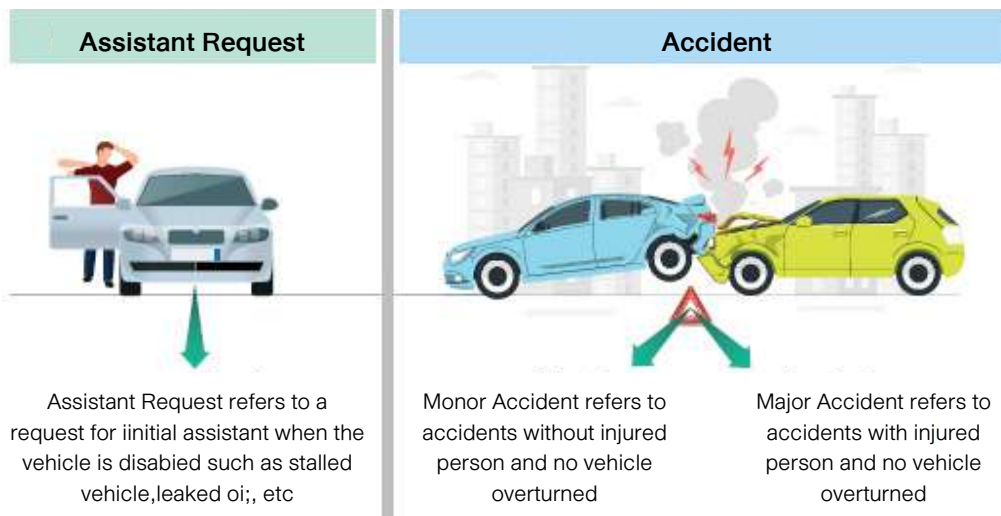
**Actions taken to reduce severity of accidents:
installments of crash cushions and truck mounted attenuators**

- Maintenance of tollway, on both structure and equipment aspects, has been performed strictly in accordance with specified plans to provide convenience and safety throughout the journey.





(3) Incident Management The Company has established guidelines for managing accidents and emergencies that may occur on a case by case basis, such as fire, accidents, items dropped on the tollway, etc. Traffic Management and Facilitation Department (consists of the Operations Control Center, rescue team, special rescue team, and traffic management team) will arrive at the scenes within 12 minutes of notification in order to resolve those situations, including assisting injured users or repairing users' vehicles. For the case when the incidents cause traffic obstruction, remedial action will be taken within 60 minutes for 1-lane blockage and 90 minutes for 2-lane blockage. In this regard, comprehensive and adequate preparations have been made in terms of operators by coordinating the Company's personnel with external agencies and tools and equipment necessary for each type of incident. Moreover, rehearsal drills are organized to ensure swift and effective rescues, as well as reducing potential losses incurred at an acceptable level.



Vehicle Type	Request for Assistant			Minor Assistant		Major Accident					
						Vehicle NOT overturned			Vehicle overturned		
1. Small Rescue Vehicle	✓	✓	-	✓	✓	-	✓	✓	-	-	-
2. Large Rescue Vehicle	-	✓	✓	-	✓	✓	-	✓	✓	-	-
3. Tow Truck	✓	-	-	✓	-	-	✓	-	-	✓	✓
4. Special Rescue Vehicle	-	-	-	-	-	-	✓	-	-	-	✓
5. Ambulance	-	-	-	-	-	-	-	-	-	-	✓
6. Mobile Crane Vehicle	-	-	-	-	-	-	-	-	-	-	✓

Safety Standards on Tollway

In order to ensure safety for users, passengers, and operators throughout the operation and/or journey in compliance with international standards, Tollway structures and components have been designed, and clear guidelines have been established for controlling traffic management and regular maintenance along the routes. Moreover, emergencies and accidents are remedied in a swift manner in order not to affect other users. The operations consist of management as follows:

(1) Tollway structures and components

Design and construct structures and components that are suitable for topography and in line with forecasts of traffic volume expected to use the services, including toll collection system, lighting system on the tollway, electrical and mechanical systems for buildings, traffic control system, and surveillance system that are suitable and able to keep up with technological changes in order for convenience, fast, and safety journeys. Maintenance management by experienced team of experts is performed on a regular basis.

(2) Traffic Management and Rescue

Provide facilitation and traffic management at appropriate times and situation, for example during rush hours or high congestion areas so that tollway users can reach their destinations with ease, speed, and safety. The Company provides:

* **Operation Control Center** is responsible for monitoring, checking traffic conditions, coordinating traffic management, maintenance, collecting tolls, and rescuing with internal and external agencies, namely police officers on Don Muang Tollway and Viphavadi Rangsit Road, etc. In 2020, the Operation Control Center (OCC) has been upgraded with improvements and installments of CCTV, Variable Message Signs (VMS), and additional Over Speed Warning signs to facilitate road users, enhance safety and efficiency 24 hours a day.



Operation Control Center: OCC



* **Facilitation in traffic management and rescue** standardized practice guidelines are implemented throughout the tollway, especially in areas with heavy traffic congestion at various times, including installing devices that facilitate convenience and safety for journeys such as traffic signs, truck weighing stations, speed detectors, crash cushions, flashing signs for speed limit, mobile variable message signs, etc. in order to ensure that users travel safely. During the time of accidents or emergencies that may pose a danger to other tollway users, traffic management will be carried out in parallel with the rescue missions in order to resolve the situations, as well as managing traffic conditions to return to normal as quickly as possible.

Occupational Health and Safety of Personnel

Emphasize on safety and occupational health of all personnel during the severe outbreaks of COVID-19 by preparing and adjusting guidelines of occupational health and safety for personnel so that they can operate and carry out business activities safely, in compliance with the Occupational Health and Safety Act 2011 and the laws, rules, and regulations on the management of COVID-19, which were strictly stipulated.

The Company gives importance to safety, occupational health and working environment of the Company, as well as its employees, contractors or partners. The Company has a policy on safety, occupational health and working environment by assigning employees and contractors to be responsible for themselves and others under administrative laws and standards. The Company established the Occupational Safety, Health and Environment (OSH&E) Committee program, which convenes once a month with the goal to have zero accidents at work. When causes of danger are found, work plans are adjusted to prevent recurring accidents, which is to analyze the real cause of accidents, improving the operating manual, and applying ISO 45001 standards to determine management guidelines to prevent and reduce operational accidents.

The Company performs Occupational Health and Safety management of personnel as follows:

(1) Establish and assign the “Safety and Occupational Health” unit to manage and coordinate occupational health and safety matters with the Safety, Health and Environment in the Workplace Committee and safety officers at each level of the Company.

Committee of Occupational Safety, Health and Work Environment of the Workplace

Description	Position	No.
Chairperson	Managing Director	1
Management Level Representative	Manager and above	2
Operation Level Representative	Operation personnel	3
Secretary	Occupational Safety Officer at Professional Level	1
2- Year Service Term		7



Number of executive safety officers:

52

Number of supervisor level safety officers:

62



Number of professional safety officer:

1

(2) **Safety at Workplace** covers the operations of the Company’s employees and external contractors such as maids, security guards, contractors, etc. who work at the office and/or on the Don Muang Tollway. The Company has taken the following actions:

- Establish a policy for every unit to give importance on safety at work, which is considered as the first responsibility in the performance of all employees, including allocating sufficient and appropriate budget for safety operations.

- Identify hazards and assess operational risks using checklist to assess risks in various work processes of the Company in order to determine safe operating guidelines consistent with the Workplace Safety and Health Policy that the Company has consistently set to ensure that all employees work safely and are in good health.

- Educate, train, and promote work safety for employees via various channels to create participation in safe work practices, including listening to opinions on the improvements concerning safety from operators.

- Organize the workplace environment and sanitation to ensure safety on life, health, and property of employees and the Company while operating under the COVID-19 outbreak, including providing comprehensive health facilities and services to employees, maids, and security guards regularly.

- By supervising and inspecting work safety, rehearsing preparation plans for various emergency situations - protests and road closures that may affect operations of employees, the outbreak of COVID-19 - and investigating incidents occurred, the Company is able to maintain work safety at an acceptable level.

Due to the Company’s commitment in 2022, it received the honorary certificate of **“Occupational Safety and Health Management System Standard – Basic Level”** from Thailand Institute of Occupational Safety and Health (Public Organization) (TOSH), Ministry of Labor.



**Indicator: 0 work accidents**

Year	Number of employees (person)	Number of accidents occurred (times)
2022	382	3*
2021	417	1*
2020	444	3*

* Remark: the Occupational Safety, Health and Environment (OSH&E) Committee program convenes once a month with the goal to have zero accidents at work. When causes of danger are found, work plans are adjusted to prevent recurring accidents, which is to analyze the real cause of accidents, improving the operating manual.

Performance on Contract and Partner Management

The Company gives importance to the strict management of contract parties and business partners as they are key stakeholders in business operations. Thus, the Company emphasizes on treating contract parties/partners equitably on the principle of fair competition, strictly following the contract and procurement processes, which are crucial in controlling the quality of products and services, as well as operating costs. The Company, therefore, sets the criteria and procedures for procurement (material / construction / installation of various systems, etc.) to be transparent, accountability, and beneficial to the organization.

In 2022, the Company developed the procurement process and supplier management according to the corporate sustainability guidelines, consisting of improving the operational manual on procurement-employment and procedures for selecting and evaluating vendors or contractors to cover operations according to the Company's quality and environmental policy, as well as in compliance with the management guidelines that take into account the impact on Environmental, Social and Governance (ESG). The Company has also set up Green Procurement Project to encourage procurement of environmentally friendly products. The results of the development of the procurement process and supplier management for 2022 are as follows:

- Evaluation of new suppliers: 100% of the Company's suppliers were assessed under ISO 9001 and ISO 14001 standards in 2022.
- Performance evaluation or efficiency evaluation of partners: the Company evaluates after the delivery of products or services of all partners under 5 assessment topics, namely 1) product and service quality, 2) price, 3) on-time delivery, 4) environmental management, and 5) after-sales service.
- Support the use of environmentally friendly products (Green Procurement) at least 5 items or value not less than 3% of the purchase value in 2022, with the performance in 2022 being able to operate at 24% of the purchasing value in 2022, which is able to perform better than the set target.
- Strengthening relationship with partners: the Company is committed to building good relationships with partners through various projects and activities such as trainings, seminars, and various activities to communicate the business practices of the organization. Also, various policies and practices for partners to acknowledge, such as the anti-corruption policy, policy to refrain from accepting gifts during the New Year festival, etc., including visits to partners' factories to exchange knowledge and for consideration before making a purchase decision of Energy-saving LED Light bulbs on 27 July 2022.
- Promote the potential and capability of business partners to jointly develop automatic deposit machines between the Company and Guardforce Cash Solution (Thailand) Co., Ltd. for efficient toll collection process.

Performance on Innovation Development per Innovation Policy

According to the policy set forth by the Management Committee Meeting No. 20/2021 held on 27 October 2021, The management has conducted a study and has proposed 4 potential projects that have been assigned to study in details. In order to achieve sustainability and generate other income in addition to the toll, it has been defined as the main strategy for long-term sustainability development. The committee to supervise the study of new projects in other business groups and the Innovation and Deep Tech Working Team are the driving forces of business expansion to other non-toll road businesses to strengthen the business and generate income such as Technology, Start Up Technology or Start Up Consumer in order to have a clear operating framework. Results of operations are as follows:

Scope 1 Technology Development of current DMT operations/Outcome

- Development of M-Flow toll collection system (Throughput increased to 2,000 VpD/Lane)
- Development of traffic control and management system using AI Deep Learning (24 X 7)
- Development of environmental innovations such as solar energy and EV cars (30% Saving)
- Development of customer service via Line OA (Loyalty Member 35,000 User)
- Implementation of innovative digital cash registers from partners to enhance operations (3.28% Saving)
- Development of RPA – Robotic Process Automation
- Development of Application for administrative work and assets
- Development of innovation in garbage and waste management by recycling (Decreased landfilled waste by 1.5 Ton/Week)

Tollway State of the Art Operation and Services		New Innovation	
Traffic Management System   SMART Project (AI) Traffic Management System	Toll Collection System   SMART Payment Multilane Free Flow	Environment Innovation   Solar Energy EV	Customer Service Innovation   CRM/Line OA Mobile App/Map EV

Scope 2 Further implementation to create competitive opportunities for New Technology/ New Project/Outcome

- Innovation study of Inspection and Maintenance (New Business with Japanese company)
- Innovation study of Fin Tech Treasury Management
- Study on business development to promote the use and service of electric cars (EV Service) (60% Cost Saving)
- Study on development of Customer Relation Management (CRM) (50% Cost Saving)