



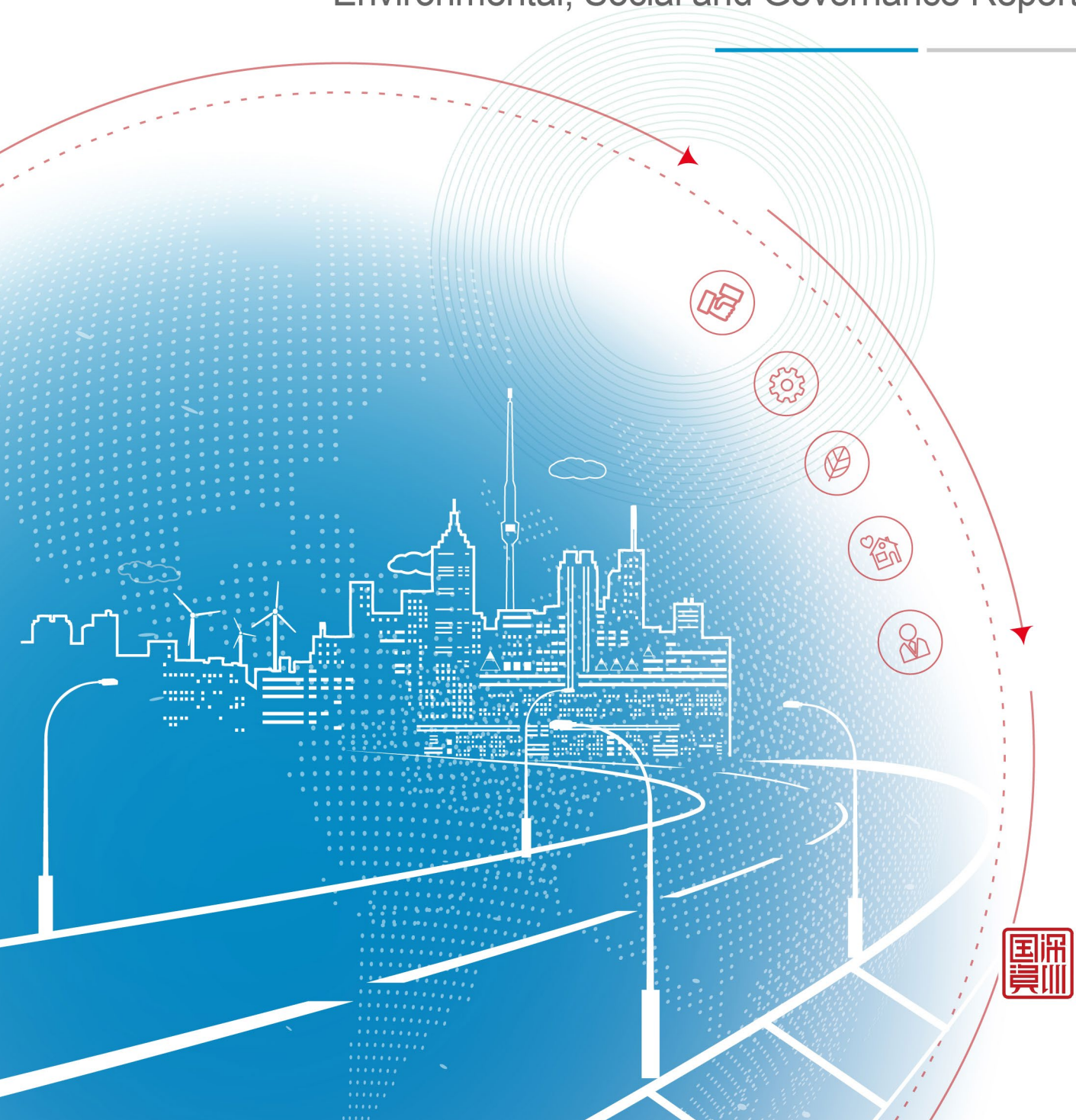
SHENZHEN EXPRESSWAY COMPANY LIMITED

(A joint stock limited company incorporated in the People's Republic of China with limited liability)
(Stock Code: 600548 (SSE) 00548(HKEx))

2020

Shenzhen Expressway Company Limited

Environmental, Social and Governance Report



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Chairman's Statement

The year of 2020 is an extraordinary year. In face of the COVID-19 epidemic, the people of our country are united to fight against it.

In our fight against the COVID-19 epidemic, Shenzhen Expressway Company Limited (here in after referred to as "Shenzhen Expressway") has actively responded to the call of the Party and the country, and fully cooperated with the government to input our manpower and material resources in preventing and fighting against the epidemic, and actively fulfilled its social responsibilities in guaranteeing flowing traffic, providing epidemic prevention and quarantine services, transporting emergency materials, ensuring a sanitized urban environment, and give donations to areas affected by the epidemic. The highways within our jurisdiction have reduced or exempted tolls fee for more than 63 million vehicles. A total of 19,000 people (on average, more than 3,000 people on duty every day) have been arranged at 72 joint quarantine points to assist local governments in carrying out epidemic prevention inspections. Shenzhen Expressway has also donated 6 million to the severely afflicted areas in Hubei. While preventing and controlling the situation of COVID-19, the Group has actively taken measures to achieve a full resumption of work, and achieved "zero infection" for our employees.

For better communication with stakeholders to implement the environmental, social and governance (ESG) measures, Shenzhen Expressway has conducted the first comprehensive stakeholder survey and established an improved information disclosure mechanism in 2020. On the basis of fully understanding the expectations and suggestions of our stakeholders, this report has been specifically prepared with the aim to respond stakeholders' requests in information disclosure and to have mutual growth and improvement with our stakeholders.

The foundation of the operation of Shenzhen Expressway is to continuously improve the highway quality and ensure the safety of drivers. Shenzhen Expressway has adopted the "predictive type" of the modern corporate safety management concept, and achieved our targets of zero death, zero major traffic accidents on the highways within the jurisdiction, and 100% safety production education and training for our employees. Shenzhen Expressway are committed to implement green conservation, reduce wastage in resources and environmental pollution, and strengthens the promotion of the ETC system. The average daily ETC traffic flow on highways within the jurisdiction in Shenzhen has increased by 40.7% compared with 2019, and the issue of highway congestion has been improved effectively.

In 2020, China has proposed the vision of "peak carbon dioxide emissions target by 2030 and reach carbon neutrality by 2060". Shenzhen Expressway is aware that this vision cannot be separated from the efforts and accountability of any enterprise. In our "2015–2019 Development Strategies", we have identified the general-environmental protection industry as our second main business and gradually focus

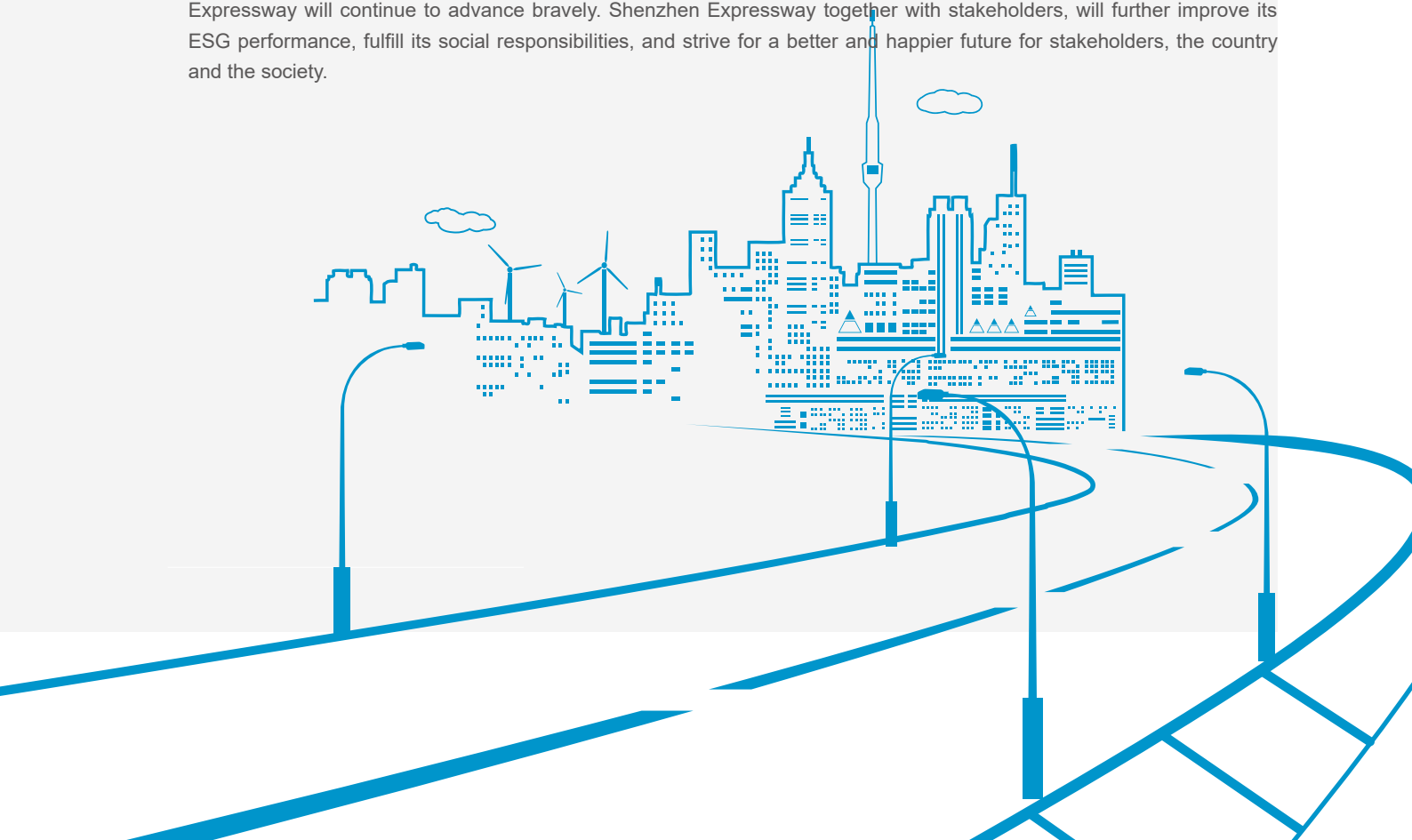


more on recovery and solid waste management, clean energy and other aspects. In addition, Shenzhen Expressway has continuously reduced the resource consumption and pollutant emissions brought by our daily operations. This year, Shenzhen Expressway has produced 644,131 MWh of on-grid energy from wind power generation and 6,492,304 kWh from biogas power generation, and has processed 328,847 tons of kitchen waste.

Besides, Shenzhen Expressway adheres to an employee-oriented vision in our business, to "share the Company's achievements with our employees", and actively create an "honest, diligent, happy, harmonic and win-win" working environment. In 2020, Shenzhen Expressway has invested a total of 451,900 in supporting employees with difficulties. Shenzhen Expressway acknowledges the importance of scientific and technological innovation and insists on strengthening science and technology development. We have obtained 275 authorized patents by the end of this year. Shenzhen Expressway continues to pay attention to public welfare and charity and devote its efforts to alleviate targeted poverty units. In recent years, Shenzhen Expressway has donated 4 million in poverty alleviation.

With ups and downs over the past year, Shenzhen Expressway has come to appreciate more than ever the significance of a community with a shared future. It is the mission and responsibility of every country and every enterprise to work together and get unified to fight against the COVID-19 epidemic, and strive to build a better home on the earth.

In 2020, Shenzhen Expressway has experienced ups and downs and overcome difficulties; in 2021, Shenzhen Expressway will continue to advance bravely. Shenzhen Expressway together with stakeholders, will further improve its ESG performance, fulfill its social responsibilities, and strive for a better and happier future for stakeholders, the country and the society.



Core highlights in ESG



Conducted the first comprehensive stakeholder survey, and collected **453** valid questionnaires.



Established the working mechanism of ESG management and disclosure, implemented by all functional departments and subsidiaries under the organization of the Secretariat of the Board & the Investor Relations Management Department.



Conducted various anti-corruption warning education activities for **70** times, with a total duration of **145** hours.



Achieved **0** work-related death and **0** work-related lost days within three consecutive years.



Invested an amount of **182** million in the annual road maintenance expenses, and achieved a year on year increase in average daily ETC traffic flow on highways within the jurisdiction in Shenzhen by **40.7** %.



Achieved an on-grid energy production of **644,131** MWh from wind power generation and **6,492,304** kWh from biogas power generation and processed **328,847** tons of kitchen wastes.



Saved about **4** million kWh of electricity per year on highways within the jurisdiction by using LED light sources, which was equivalent to saving about **1,300** tons of standard coal and reducing CO₂ emission by about **3,000** tons.



Conducted more than **100** land inspections, and stopped **4** illegal acts such as illegal land reselling and illegal construction, with no adverse impact on the surrounding ecological environment and biodiversity.



Recruited **2,555** new employees, and invested a total amount of **451,900** in supporting employees in difficulty.



Obtained **275** authorized patents, and invested a total amount of **60.551** million in research and development.



Invested a total amount of **6** million in public welfare activities as of the end of 2020. Throughout the year, **769** person-times have participated in volunteer activities, with a total duration of **1,704** hours.



Helped and set up cards for **62** targeted poverty alleviation households in the village with **145** poverty-stricken people, who have all reached the poverty alleviation standard.

Our response to the COVID-19 epidemic

In 2020, the outbreak of the COVID-19 epidemic had a strong impact across the country and industries. In the face of the COVID-19 epidemic, Shenzhen Expressway has quickly responded to the deployment of national epidemic prevention and control. We have set up an emergency command leading group for epidemic prevention and control, implemented epidemic prevention and control work, guaranteed the health and safety of employees, actively supported the front line of epidemic prevention and control, and united with all sectors of the society to fight against the epidemic.



In 2020, Shenzhen Expressway has achieved "zero infection" for its employees during the epidemic, provided more than **1.18** million masks and more than **16,000** kg of disinfection articles for our employees, reduced or exempted tolls fee for more than **63** million social vehicles on highways within the jurisdiction, and donated **6** million to the severely afflicted areas in Hubei.

Quick initial response

On 23 January, 2020, Shenzhen Expressway launched an emergency plan, and released the Special Emergency Plan for COVID-19 (Infectious Disease) Epidemic Event, the Emergency Plan for Prevention and Control of the COVID-19 Epidemic, and the Administrative Measures for Procurement and Use of Epidemic Prevention Supplies. On 4 February, Shenzhen Expressway issued the Notice on Orderly Resumption of Work and Production to quickly implement the epidemic prevention measures in all functional departments and subsidiaries, efficiently distribute and use the epidemic prevention supplies, effectively protect the health and safety of our employees, successfully achieved full resumption of production in an early stage and achieved our target in "zero infection".



Since the official launch of the joint quarantine and epidemic prevention and control at toll stations on 25 January, Shenzhen Expressway has made an input of epidemic prevention personnel of more than **19,000** person-times, **1,520** traffic safety facilities, **5.91** million inspection vehicles, and inspectors of **9.8** million person-times, and provided logistical support services such as lighting and food delivery for epidemic prevention inspection points.

During the out break of COVID-19, the Company has comprehensively investigated the basic information of more than 5,500 employees, kept abreast of employee's travel in real-time, and prepared a total of 112 daily epidemic prevention reports. In addition, all industries of the Company have taken various effective epidemic prevention and control measures according to their conditions.

Epidemic Prevention and Control Measures of All Industries of Shenzhen Expressway

Industry segments	Epidemic prevention and control measures
Toll highway industry	<ul style="list-style-type: none"> • Set up a three-level command working group of the Company-departments-toll stations, conduct targeted epidemic prevention and control measures by highway sections, and arrange staff to supervise the implementation to ensure that the epidemic prevention and control measures are in place; • Cooperate with the public security department to set up inspection lanes and inspection points at the entrances of toll stations, ensure traffic safety such as on-site signs at inspection points, set up isolation and diversion facilities, and conduct traffic diversion work for vehicles in the inspection area; • Conduct inspections of cars, drivers and passengers one by one as indicated by the "ShenYan" scanning system, to ensure that "no car or person is missing".
General-environmental protection industry	<ul style="list-style-type: none"> • Strictly control the daily registration of personnel going in and out of the Company, keep mask distribution records, and measured body temperature records, and report to relevant departments in time; • Arrange staff to disinfect the office environment, dining environment and production environment twice a day; • Carry out inspection of the situation in preventing and controlling the epidemic situation in each work post; • Share the progress and knowledge of COVID-19 epidemic prevention on the enterprise WeChat group every day, so that all employees can better understand the preventive measures; • Prepare a detailed mobilization plan for employees and external visitors returning to the wind farm in consideration of the relatively closed environment of the wind farm, and submit it to the epidemic prevention and control department under the local government for approval; • Provide training for wind farm personnel on epidemic prevention knowledge and measures; • Hold remote video and audio meetings for wind farm personnel during office hours, and implement the system of "dining at non-rush hours, in batches and by distanced seats"; • Prepare a work plan and special emergency plan for epidemic prevention and control; • Track the physical condition of employees on a business trip in real-time, and strictly implement the local epidemic prevention policy.
Project construction management services and other industries	<ul style="list-style-type: none"> • Develop an information declaration system for the epidemic prevention and control period relying on information technology to implement full coverage of real-name registration for the Company's employees and personnel involved in projects, and monitor for any abnormalities to notify the police; • Set up epidemic prevention and control inspection points at the entrances and exits, and arrange staff to be responsible for the inspection, QR code scanning & registration and disinfection of personnel in and out; • Carry out comprehensive disinfection of the office, accommodation and construction areas every day to keep no mission or hidden hazards during the epidemic prevention and control period.

Our response to the COVID-19 epidemic

Shenzhen Expressway continuously contributes to epidemic prevention in society: cooperate with local governments and epidemic prevention departments to monitor the body temperature of drivers and passengers at toll stations, conduct epidemic prevention inspection, and implement the toll-free policy for all passing cars during the epidemic period.



Study

Shenzhen Expressway organized volunteers to support epidemic prevention and control measures

Since the outbreak of the COVID-19 epidemic, Shenzhen Expressway has set up 10 emergency service points in the Shenzhen region, and established a "Volunteer Service Team of Epidemic Prevention Party Members and League Member" to carry out voluntary services by means of highway inspection, voluntary body temperature measurement, daily disinfection of stations, dormitory and canteen cleaning, etc. to ensure a safe environment within the Company, at toll stations and in other areas.

Normalized measures in epidemic prevention and control

Since the normalization of the epidemic control, Shenzhen Expressway has established a joint supervision team. The team has conducted on-site supervision and guidance seven times at the front line of fighting against the epidemic, such as at joint epidemic prevention points and toll plazas. The team has also conducted comprehensive supervision in various projects and office places by means of "flight inspection" and live video for more than 10 times.



Epidemic Prevention Inspection on Cars and Passengers by Employees of Shenzhen Expressway



Comprehensive Disinfection of Quarantine Points by Employees of Shenzhen Expressway Overnight



Restoration of Normal Traffic at Toll Stations

Number of corruption lawsuits concluded in 2020

0

Response rate of received reports

100%

Total duration of anti-corruption education for employees¹

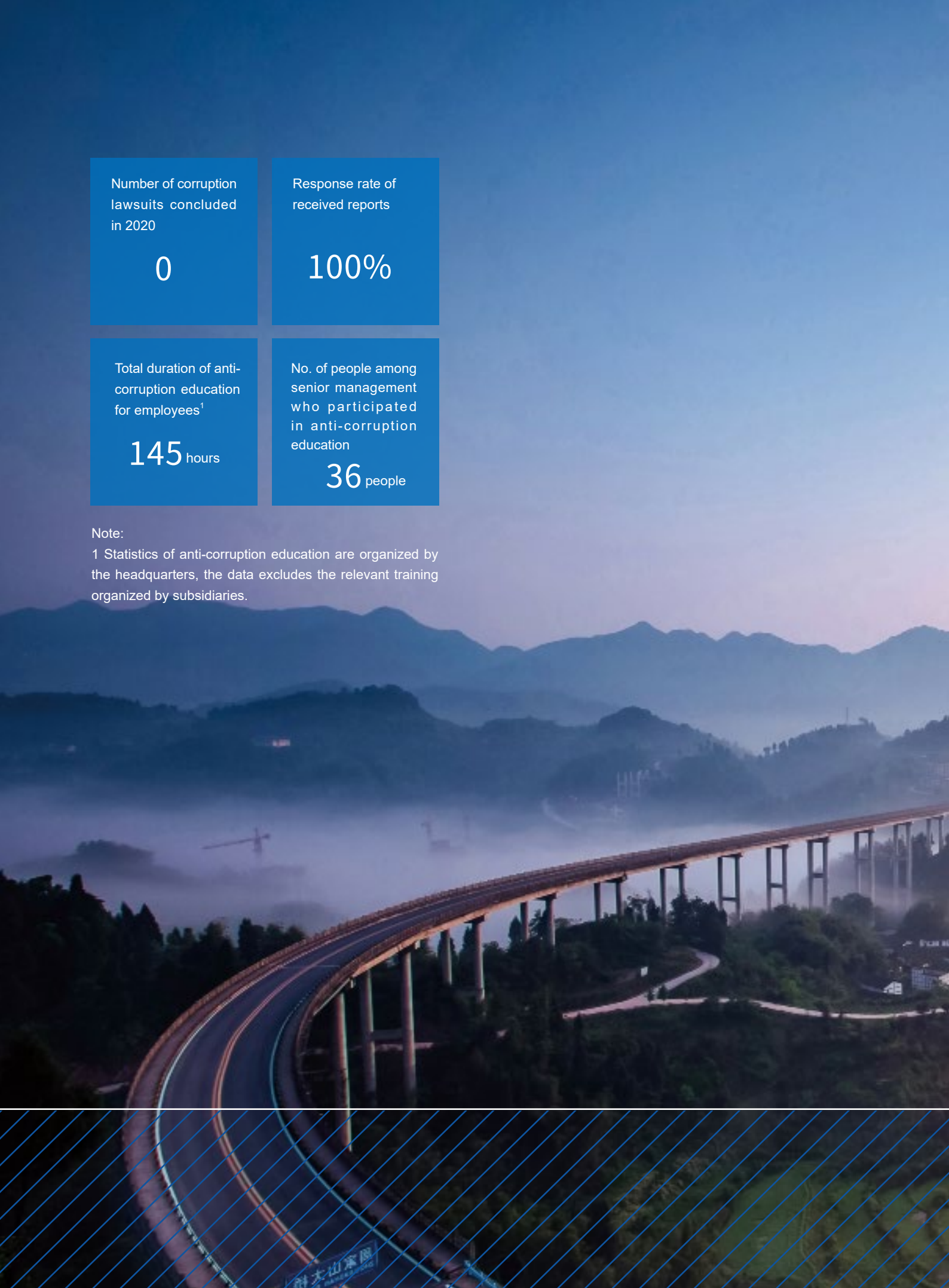
145 hours

No. of people among senior management who participated in anti-corruption education

36 people

Note:

1 Statistics of anti-corruption education are organized by the headquarters, the data excludes the relevant training organized by subsidiaries.



01 Enhance the Operational Foundation

The global society is experiencing rapid urbanization. The expansion of urban population will bring challenges to the sustainable development demands in urban land use, security in transportation, utilization of natural resources, etc. Shenzhen Expressway firmly believes that our operation not only creates value for shareholders, but also contributes to the sustainable development of society. Shenzhen Expressway is committed to enhancing and upgrading the core business of toll highways, focusing on the two core business-driven strategy in the general-environmental protection industry, promoting the sustainable development of the Company, and living up to the expectations of all stakeholders.










Responsible governance

Shenzhen Expressway continues to improve and develop its sustainable development management standards. Shenzhen Expressway has established the working mechanism of ESG management and disclosure, which is implemented by all functional departments and subsidiaries under the coordination of the Board and the organization of the Secretariat of the Board & the Investor Relations Management Department. In the second half of 2020, the Secretariat of the Board & the Investor Relations Management Department has taken the lead in ESG information disclosure throughout the year. While all functional departments and subsidiaries have gradually begun to sort out, integrate and summarize the information, measures and highlighted cases. The Secretariat of the Board & the Investor Relations Management Department has collected and verified the quantitative data of ESG, and conducted multiple rounds of communication with all functional departments and subsidiaries to ensure the integrity and accuracy of ESG information disclosure. Shenzhen Expressway regularly describes the preparation of ESG reports to the Board. The major issues are confirmed by the Board through discussion, and the reports are disclosed after review and approval of the Board. In the future, Shenzhen Expressway will continue to improve ESG-related policies and management methods, and continuously improve ESG performance.

Communication with stakeholders

Shenzhen Expressway continuously pays attention to the demands and expectations of our stakeholders, including governments, shareholders, suppliers, customers, employees, communities, etc. By establishing diversified communication channels and improving the communication and feedback mechanism, Shenzhen Expressway fully understands and actively responds to the demands of stakeholders to promote the Company's sustainable development with our stakeholders.

Communication with Stakeholders

Stakeholders	Demands and Expectations	Response
 Government and regulatory agency	Comply with laws and regulations Implement national policies Conduct targeted poverty alleviation and support regional development	Continuously strengthen the corporate compliance management Actively respond to national policies
 Shareholders	Strengthen information disclosure Steady operation Create market values	Conduct information disclosure in a compliance manner Hold the general meetings of shareholders and strengthen investor relations Consistently create business performance Improve the management level of the Company
 Suppliers	Carry out cooperation for mutual benefit and win-win results Promote industry development	Implement fair procurement and build a responsible supply chain Hold supplier meetings Promote industry development
 Customers	Protect the legal rights and interests Safe and smooth traffic flow Highway maintenance	Communication with personnel Make the complaint channels open to public Strengthen the highway safety management
 Employees	Salary Development space Training system	Continuously improve the salary management system Employee satisfaction survey Career development training
 Communities	Highway environmental impact Business ethics	Public welfare activities Make public the complaint channels
 Environment	Make rational use of resources Preserve the ecological environment	Improve the efficiency of energy and resource utilization Implement green operation and office Strengthen the disclosure of environmental information

Assessing major material issues

In 2020, in order to better understand the stakeholders' expectations and opinions on ESG matters, Shenzhen Expressway has conducted a comprehensive stakeholder survey and identified the materiality issues related to sustainable development:

1

Identify the issues

Based on the results in peer benchmarking, major material issues are identified and a library of materiality issues is established by sorting out the ESG guidelines, concerns on capital market ESG issues, and industry-specific issues issued by regulatory agency.

2

Stakeholder survey

Through conducting the on-site interview, online questionnaire, etc. communication with internal and external stakeholders, the expectations and demands of stakeholders are identified.

3

Rank the issues to form a matrix of major material issues

By analyzing the results of 453 questionnaires, the importance of each issue to the Company and stakeholders is assessed respectively, and the ranking of materiality of issues and the matrix of material issues are determined.

4

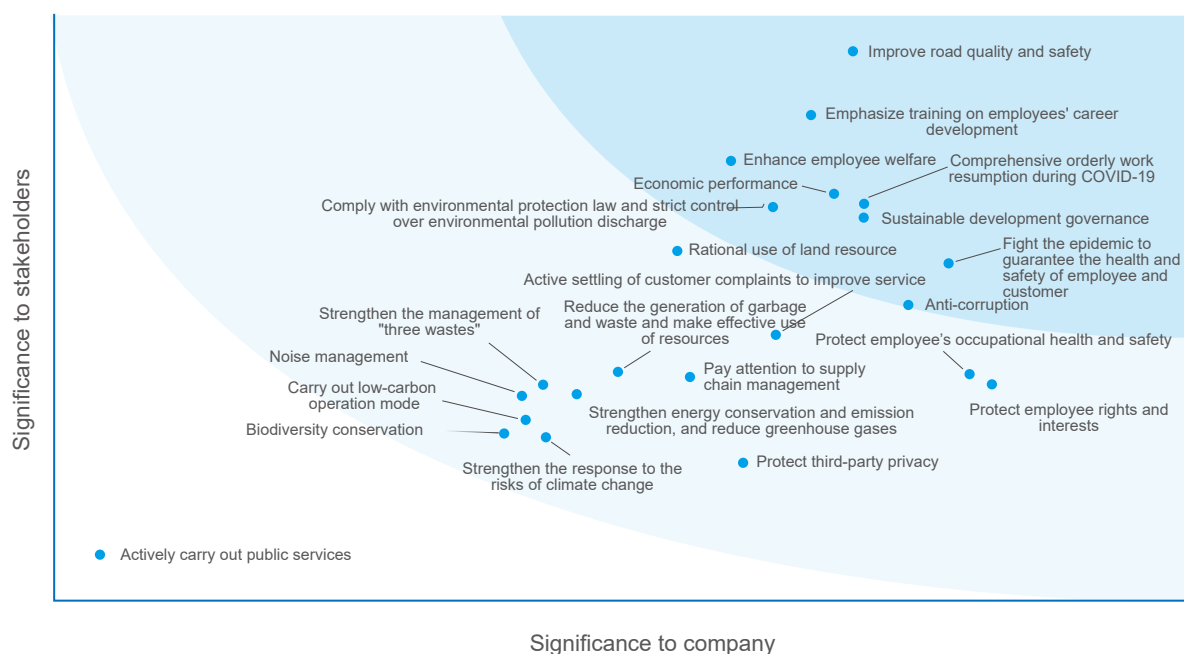
Review the issues by the Board

The management of the Company reviews the major issues and their ranking, and invites external sustainable development experts to review the ranking of materiality issues and put forward professional suggestions.

5

Issues disclosed and responded in this Report

Based on the determination results of materiality issues, the Company will fully elaborate the major issues in this Report, and make key considerations when formulating internal development strategies and management policies.



Matrix of Materiality Issues for Shenzhen Expressway in 2020

Anti-corruption

In order to comprehensively improve the ability to perform duties and better promote sustainable development, Shenzhen Expressway adheres to achieve steady operation. We acknowledge the importance of integrity, and pay effort to prevent eliminate corruption from mainly two aspects, including system improvement and integrity education.



The number of corruption lawsuits in 2020: **0**.

Improve the management system

Shenzhen Expressway strictly abides by the Anti-Corruption and Bribery Law of the People's Republic of China, Anti-money Laundering Law of the People's Republic of China, Tendering and Bidding Law of the People's Republic of China, and laws and regulations. Shenzhen Expressway has formulated the Anti-fraudulent Work Regulation, which clarifies key points and responsibility of anti-fraud work, procedures of fraud prevention and control, and procedures of fraud case reporting, investigation, handling and informing. Shenzhen Expressway also regulates the behaviors and ethics of all employees by means of the Employee Handbook, Reward and Punishment Measures for Employees, Anti-fraudulent Work Regulation and other systems. In addition, Shenzhen Expressway has issued the Handbook of Risk Prevention and Control in Key Areas, which regulates the behaviors of employees and contractors in view of the integrity risk points that may arise in the work processes and links of six major segments, such as project construction, investment management, operation management, financial management, general administration and employee management, to eliminate the corruption at its source.

To ensure that complaints and reported cases are handled accurately, timely and fairly, Shenzhen Expressway has revised the Administrative Measures for Discipline Inspection, Petition and Reporting Work, which clarifies the procedures of report acceptance, to improve the reporting mechanism of the Company by registering acceptance, organizing investigation, closing and filing cases, etc.

● Shenzhen Expressway Reporter Protection System ●

Shenzhen Expressway strictly protects the privacy information of the reporter, resolutely prohibits any forms of retaliation, and stipulates the protection of confidential documents and reporter information:

- All departments, units and personnel must strictly keep the name, employer and home address of the reporter confidential;
- The relevant materials reported must be submitted to the Company's Discipline Inspection Committee for inclusion into confidential documents; the materials shall not be extracted, copied, withheld or destroyed without permission;
- Transferring of report materials to the reported unit or person is strictly forbidden;
- When accepting the report from the reporter or verifying the situation with the reporter, the report materials shall be kept confidential and the identity of the reporter shall not be disclosed;
- As to the publicity of the reporter, the name, employer and other information of the reporter shall not be disclosed without the written consent of the reporter.

Strengthen the education on integrity

Shenzhen Expressway actively carries out anti-corruption warning education and learning through publicity platforms such as blackboard newspaper, WeChat official account, enterprise journal, internal and external network. Through warning education propaganda boards, WeChat, internal network, etc. Shenzhen Expressway carries out normalized education and publicity on typical cases of breach of integrity regulations, and encourages employees at all levels to keep the anti-corruption concept in mind and externalize it into practice. In order to further prevent conflicts of interest and effectively prevent authority corruption, Shenzhen Expressway urges the management at or above the deputy level and personnel in key positions of the Company and its affiliates, and the personnel from shareholding enterprises to sign the Commitment on Integrity and Self-discipline during their tenure, urges them to perform their duties conscientiously, strengthens their awareness of integrity, and encourages them to consciously accept supervision.



In 2020, Shenzhen Expressway has carried out warning education activities **70** times, with a total duration of **145** hours, including **5** hours for senior management.

In 2020, Shenzhen Expressway has received **9** effective reports, with a response rate of effective reports up to **100%**.



Case

Shenzhen Expressway has carried out warning education activities themed on "people around, cases around"

In June 2020, Shenzhen Expressway organized the management of all functional departments of the headquarters and subsidiaries to remotely attend the warning education activities themed on "people around, cases around" in the form of video conference. During such activities, Shenzhen Expressway has played back the real cases of corporate employees in breach of discipline and law, and invited the supervision unit to provide analysis and comments, which effectively enhanced the awareness of the management and employees of the Company against corruption and degeneration.



The Scene of Warning Education Activities

Investment in
road maintenance
expenses

182 million

Growth Rate of
ETC Traffic¹

40.7%

Timely Handling
Rate of Rational
Complaints

100%

Signing Rate of the
Safety Responsibility
Agreement

100%

Note

¹ Shenzhen area data.



02 Strict Assurance on Quality and Safety

Improving the highway quality and escorting the safety of drivers and passengers are the foundation of our operation. Shenzhen Expressway is committed to serving drivers and passengers to create a comfortable and harmonious driving environment, improving the highway maintenance level. We actively adopt green maintenance technology, and optimize customer service measures continuously. We also carry out investigations in potential safety hazards and enhance the efficiency of obstacle clearance, to provide satisfactory, thoughtful and reliable service for every traveler.



Strengthen the Safety in Production

According to the "predictive" modern corporate safety management concept, Shenzhen Expressway adopts the advanced, proactive and systematic management model to improve the Company's safety assurance level. In addition, according to the industry characteristics of public utilities, the Company actively promotes the effective stakeholders' implementation of various safety assurance measures under the premise of fully assuring the safety of employees, and to jointly create a safe, healthy and reliable production and operation environment with our stakeholders.

System Construction

In accordance with laws, regulations and codes such as the Law of the People's Republic of China on Work Safety, Measures for Administration of Emergency Response Plan for Work Safety Accidents, and Guidelines of Standardization of Corporate Work Safety (GB/T33000-2016), Shenzhen Expressway has established a series of work safety management systems, including but not limited to the Corporate Safety Management Procedure, Emergency Response Management Procedure for Work Safety and Safety Training Management System. The systems apply to all functional departments, subsidiaries and employees of Shenzhen Expressway, standardizing various elements of work safety management and defining a series of safety management contents, such as the structure of work safety management, responsibilities of employees at various positions, work safety assurance measures and enhancement of safety awareness.

The Company has set up a four-level top-down work safety management approach. The Chairman is fully responsible for the Company's work safety, and the President is the first person responsible for work safety. The Chairman and the President are jointly responsible for establishing and improving the Company's safety management organizations and leading the Company's work safety management and supervision.

Responsibilities of Shenzhen Expressway Work Safety Management Organizations

Management Organizations	Responsibilities
Work Safety Committee	Work Safety Committee is the safety management decision-making body of Shenzhen Expressway, responsible for leading the safety management of the Company. The Chairman serves as the Director of the Committee, the President and the person in charge of work safety serve as Deputy Directors, and person in charge of other business and relevant departments serve as members of the Committee.
Work Safety Committee Office	Work Safety Committee Office is the daily execution organization under the Committee, responsible for implementing the relevant requirements of the Committee. The Office is based in the Safety Supervision Department, and the Head of the Safety Supervision Department concurrently serves as the Director of the Office.
Safety Supervision Department	Safety Supervision Department is a full-time safety management organization of Shenzhen Expressway, responsible for general supervision and management of the Company's work safety.
Subsidiaries	All subsidiaries set up their respective safety management organizations according to the requirements of relevant laws and regulations and their actual situation.

Shenzhen Expressway has formulated the Shenzhen Expressway Management System of Safety Assessment, Reward and Punishment, which incorporates safety management into the year-end safety performance assessment in all functional departments and subsidiaries. The work safety assessment indicators include annual standardized assessment of work safety, signing and implementation of the Work Safety Responsibility Statement, response to daily safety management, implementation of safety inspection and rectification, and the year-end work safety report.



In 2020, Shenzhen Expressway did not involve in any work-related injuries or deaths.

Safety Assurance

The Company is engaged in various industries such as toll highway, project construction management services, general-environmental protection and clean energy. As to these industries, the Company has established the safety system and the management system corresponding to the risk levels, based on the results of the Company's risk identification, in order to implement control measures accordingly.

Shenzhen Expressway Number and Proportion of Work-related Deaths 2018-2020

Year	Unit	2018	2019	2020
Number of work-related deaths	Person	0	0	0
Proportion of work-related deaths	%	0	0	0
Number of work-related working days lost	Day	0	0	0

Toll highway industry

According to the national and local laws and regulations such as the Law of the People's Republic of China on Work Safety, and Measures for Administration of Emergency Response Plan for Work Safety Accidents, Shenzhen Expressway has formulated the Emergency Response Plan for Work Safety and the Emergency Disposal Plan for Hazardous Article Accidents, which are applicable to all toll highways, to standardize the emergency procedures and strengthen the safety assurance.



Shenzhen Expressway has set the goals of zero death and major injuries, zero major traffic accidents on highways under its jurisdiction, and **100%** education and training rate of employees on work safety, which have all been achieved by 2020.

Shenzhen Expressway has formulated the Safety Responsibility System, which clarifies the safety tasks and requirements to all departments and positions, to ensure that "everyone is in charge of safety and everyone is responsible for safety".

Shenzhen Expressway Road Safety Assurance Measures

Conducting Safety Inspection	Strictly Controlling Hazardous Articles Transportation	Setting Up Safety Signs
<ul style="list-style-type: none">Shenzhen Expressway has identified a variety of safety inspection methods, such as routine safety inspection, specialized safety inspection, seasonal safety inspection and holiday safety inspection.	<ul style="list-style-type: none">As to vehicles carrying hazardous articles, we have set up warning signs such as "No entry for vehicles illegally carrying hazardous articles" at ramp exits, city boundaries, and entrances and exits of highways under the jurisdiction.	<ul style="list-style-type: none">Set up "No fatigue driving" signs, visual deceleration marking, and flashing lights in accident-prone sections; Set up safety signs along the highway.





General-environmental protection industry

According to the Guidelines of Standardization of Corporate Work Safety, Evaluation Standards for Work Safety Standardization of Metallurgical, Industry, Trade and Other Production Enterprises, and other national laws and regulations, Shenzhen Expressway has formulated the Compilation of Work Safety Management Systems, which includes a series of safety systems related to work safety. We encourage the main person in charge and work safety management personnel of each project to actively learn the knowledge of work safety through various forms and channels, and continuously enhance their safety awareness and ability.

According to the surrounding environment and layout of the plant, the hazardous characteristics of the industry and the current situation of safety facilities, we identify the main hazard sources and risk factors, as well as the risk points of the plant and surrounding environment, and post risk signs at the risk points, listing out contents such as the risk factors, warning marks and emergency treatment measures etc. Meanwhile, we arrange personnel to inspect each risk point and identify potential problems regularly. For major safety risks, we have established a complete risk monitoring system and formulated an emergency response and rescue system according to the specific environment.



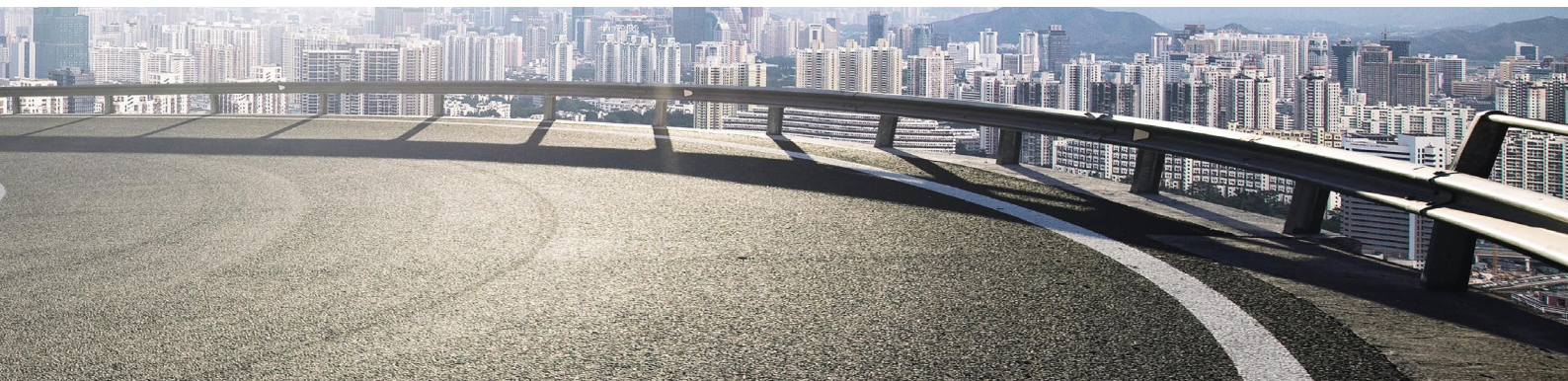
Shenzhen Expressway Management and Control Measures for Major Safety Risks of General-environmental protection industry (examples)

Location/Procedure/ Position	Potential Incidents and Consequences	Risk Management and Control Measures
 Oil Tank Area	 Fire Explosion	<ul style="list-style-type: none"> Oil tanks, pumps, valves, pipelines and other equipment and their supporting instruments shall be qualified. Install liquid-level gauges and other instruments in the oil tanks. Pipelines, valves and instruments shall be subject to regular inspection and maintenance. Set up safety warning signs.
 Inspection and Maintenance of Oil Tank	 Fire Explosion Poisoning and Suffocation	<ul style="list-style-type: none"> Fire sources must be strictly controlled and eliminated. Before entering the oil tanks for cleaning, the oil tank must be emptied, cleaned with inert gas, and ventilated. The cleaning must be carried out seriously and responsibly. Fire maintenance shall not be started before the tanks become clean and empty. During cleaning and maintenance of oil tanks, explosion-proof electrical and lighting equipment shall be used on site. Waste washed out of the oil tank after cleaning should be properly disposed of to avoid fire explosion.

Project construction management and other business segments

Shenzhen Expressway always adheres to the principle of "safety first, prevention crucial, comprehensive management" in the project construction, putting the work safety in the first place of project management. The Company has formulated the Management Procedures for Safe and Civilized Construction, which stipulates the identification and assessment methods of hazard sources in the process of project implementation, as well as the handling methods of work safety emergencies.

Shenzhen Expressway regularly organizes various types of safety inspection activities, including monthly inspection, semi-annual inspection, special inspection and third-party inspection. After the completion of each inspection, a notification letter of inspected items is issued, which lists the problems found and on-site photos of potential hazards in detail and proposes the follow-up rectification be completed within the stipulated time. In 2020, a total of 233 inspections were carried out, with a follow-up rectification rate of 100%.



Monthly Inspection

Monthly safety inspection is mainly designed for the on-site construction units of projects under construction, including safety management information, safe and civilized construction at the construction site, etc.

Semi-annual Inspection

Semi-annual safety inspection covers the construction of safety responsibility system, safety technology management, team construction, potential hazard investigation and management, etc.

During the semi-annual inspection in 2020, Shenzhen Expressway entrusted a third party to conduct safety inspection on the project site.

Special Inspection

In 2020, Shenzhen Expressway launched a special campaign called "Adhering to the Red Line of Quality and Safety" to strictly investigate unsafe behaviors at the construction site.

In June 2020, Shenzhen Expressway launched the "Special Inspection on Typhoon and Flood Prevention Safety", requiring projects to arrange special personnel to pay close attention to meteorological information and be on duty 24 hours a day to make early warning and emergency response in time.

Safety enhancement

Safe production, awareness comes first. Shenzhen Expressway continues to carry out various kinds of safety education and training every year, involving various awareness-raising activities such as safety training, emergency drills and safety knowledge publicity.

Toll highway industry

Shenzhen Expressway has formulated the Management System of Work Safety Education and Training to implement the training and education of employees at all levels and keep relevant records. In addition, we also actively invite safety experts and traffic police departments to provide professional guidance during training to enhance the safety capacity building of both full-time and part-time safety management personnel. For outsourcing stakeholders, safety skills training is carried out before entry to ensure that the outsourcing stakeholders are familiar with sources of hazard, emergency treatment measures and self-protection knowledge.



Case

Launching the "Work Safety Month" campaign of toll highway

In June 2020, Shenzhen Expressway launched the 'Work Safety Month' campaign themed on "Eliminating Accidents and Potential Hazards, Forging a Stronger Defense Line of Safety". It widely publicized safety laws and regulations, safety norms of the industry, safety responsibilities by posts and work safety operation procedures with promotional materials and channels such as banners, microblogs, WeChat, and bulletin boards, to enhance employees' awareness of work safety. During the campaign, Shenzhen Expressway set up a total of 35 banners, 12 special bulletin boards, 45 posters, and 10 information boards along highways, and distributed more than 6,000 safety management manuals.



'Work Safety Month' campaign organized by Shenzhen Expressway

General-environmental protection industry

Shenzhen Expressway actively promotes safety education among all employees, in all respects, all positions and during the whole process. At the end of each month, we issue a safety activity plan for the next month, encouraging all departments and projects to carry out training according to the plan, including training for the management, employees, new employees and other personnel. In 2020, the general-environmental protection industry has carried out a total of 29 work safety training programs, with 703 people-times attended.



Case

Post safety training organized by the general-environmental protection industry before Labor Day

In April 2020, the general-environmental protection industry carried out an employee safety training before the upcoming Labor Day to reduce the unsafe factors during the holiday. A total of 29 employees attended the training. The training mainly includes activities for employees to conduct pre-holiday safety inspection in order to eliminate potential safety hazards, to carry out pre-holiday maintenance of mechanical equipment, to arrange personnel for regular inspection to ensure the safety of the plant and to carry out safety supervision activities by the management of the plant.



Post safety training before Labor Day

Project construction management services and other industries

In 2020, the "Safety Training Matrix" is formulated according to the characteristics of the business types and the requirements of relevant national laws and regulations. The training content includes safety culture, safety knowledge, safety skills and other training. According to the different training contents, trainers are introduced by the Chairman, the Safety Director, the external trainers, the personnel of the Safety Supervision Department, and other personnel or departments to fully guarantee the professionalism of the trainers. In addition, we have also organized safety training for personnel of the construction unit, such as safety responsibility awareness-raising training, investigation of potential safety hazards of projects, etc. to convey the Company's experience on safety issues to the stakeholders and ensure the safe and orderly implementation of project construction together.

In response to all kinds of emergencies, we have actively carried out various emergency drills. In 2020, the Outer Ring Project carried out an emergency rescue drill that involved the electric shock from high-voltage power lines, with more than 100 personnel attended, participants' awareness of emergency response and rescue are enhanced.



Build Quality Highways

Shenzhen Expressway strictly assures highway quality and provides a comfortable and harmonious driving environment. We have passed the ISO9001 quality management system certification.



ISO9001 quality management system certification

Highway Quality

According to the Law of the People's Republic of China on Work Safety, Guidelines for Work Safety Standardization of Maintenance Department and other laws, regulations and industry regulations, Shenzhen Expressway has established the Manual for Work Safety Management of Road Maintenance Department, and the System for the Potential Hazard Investigation and Management of Highway Maintenance Department. The potential hazard investigation includes daily potential hazard investigation, comprehensive potential hazard investigation, specialized potential hazard investigation, seasonal potential hazard investigation, potential hazard investigation before major events and holidays, and accident analogy potential hazard investigation. Given various potential hazards identified, we determine the management scheme and duration according to the different levels of potential hazards, to resolutely and effectively control various potential hazards. In 2020, Shenzhen Expressway identified 191 potential hazards on the highways, with a rectification rate of 100%. (The statistics of the potential hazard inspection carried out by the headquarters of Shenzhen Expressway do not include the data of the potential hazard inspection carried out by the subsidiaries.)



Shenzhen Expressway is committed to green maintenance, and continuously improving the recycling level of highway pavement materials. We adopt geothermal regeneration technology for road maintenance, using geothermal regeneration equipment to heat the existing asphalt concrete surface layer to the prescribed temperature. After harrowing to a certain depth, a proper amount of new mineral materials, new asphalt, asphalt re-generate and other materials is added. After an even mixture, the new asphalt concrete surface layer is paved and rolled into shape on site. Compared with traditional technology, geothermal regeneration technology has the advantages of resource-saving, environmental protection and small traffic interference.

Improving Highway Accessibility

Shenzhen Expressway acknowledges the importance of the promotion and application of the Electronic Toll Collection System (ETC), to reduce the traffic congestion and time-consuming problems at toll stations due to toll collection and payment. Meanwhile, we have explored the three-dimensional composite reconstruction and expansion mode of existing highways to rationally plan new highways and improve highway accessibility.

Promotion and Application of ETC by Shenzhen Expressway to improve highway accessibility

Advance Publicity

Carrying out intensive advance publicity through various channels such as information boards along highways within the jurisdiction, banners, leaflets, and customer service WeChat official account.

Handling at Toll Stations

Setting up 41 permanent release points at the toll plaza, to realize full coverage of highways within the jurisdiction in Shenzhen and achieve the release of a single-vehicle in 5 minutes at the soonest, improving the efficiency and convenience through one-stop service.

Centralized Handling

Organizing personnel to set up more than 50 temporary release points in dense traffic spots such as communities, industrial parks, and parking lots of mega shopping malls and supermarkets, as well as actively contact vehicle management offices, bus fleets, online car-hailing services, etc. providing door-to-door centralized handling services for more than 220 times.



As of the end of 2020, the average daily ETC traffic flow on highways within the jurisdiction in Shenzhen has increased by **40.7%** compared with 2019, the transit time of a single vehicle has been shortened by **8** seconds, and the daily average transit time of vehicles has saved by **349** hours, thus effectively reducing the carbon emissions resulting from traffic congestion.

Shenzhen Expressway relieves the regional traffic pressure by investing in the construction of a new highway network. The Outer Ring Project is the longest expressway in the Shenzhen expressway network. The project is constructed in three phases, with a total length of about 93 kilometers. Phase I of the Outer Ring Project has been officially opened to traffic on December 29, 2020 as planned. The completion and opening of the Outer Ring Project help to divert the traffic pressure of the outer circle of Shenzhen and reduce congestion.

Improving the efficiency of obstacle clearance is an important step to achieve flowing traffic. Timely responding to rescue and assuring people's personal and property safety is the top priority of toll highway operation management. Shenzhen Expressway has formulated the Measures for Processing of Highway Rescue Information, which stipulates the relevant responsibilities of toll stations, Highway Property and Administration Department, and Customer Service Information Department, and lists the procedures for required rescue in detail, clarifying the rescue responsibilities and procedures, to improve rescue efficiency and reduce the loss of life and property due to traffic accidents and vehicle malfunctions. In 2020, the rate of obstacle clearance in 20 minutes on the highway network of Shenzhen Expressway has reached 90%.



Construction Site of Outer Ring



Case

Organizing Emergency Rescue Drill for Highway Collapse

In June 2020, Shenzhen Expressway organized a drill on the special emergency plan for highway collapse accidents, which simulates various emergency rescue procedures and measures for highway collapse. The drill was implemented in four stages: early warning and information reporting, emergency response, post-processing and emergency completion, including identifying collapse accidents, reporting to relevant units, launching the emergency response plan, and on-site rescue by stakeholders.



Emergency Rescue Drill for Highway Collapse organized by Shenzhen Expressway

Customer service

After more than 20 years of exploration, summary and development, Shenzhen Expressway has transformed from simple toll collection management to brand management, creating a service and brand system with regional and industrial characteristics. Taking the "36710" Service Standard Mode as the core and combining urban characteristics, demands of drivers and passengers as well as corporate features, the system continues to extend its service chain, expands the service connotation and improves the service level and management quality through all-round and multi-dimensional improvement measures.

Shenzhen Expressway "36710" Service Standard Mode

In 2018, Shenzhen Expressway "36710 Quality Service" was successfully selected as one of the Top 10 Transportation Culture Brands in the province with the highest score.



In 2020, a toll collector of Fumin Toll Station of Shenzhen Expressway was awarded the "Shortlist Prize of Most Beautiful Highway Toll Collector in China" at the 8th Annual Meeting of National Expressway Brands and the 7th Ceremony of "Most Beautiful Highway Toll Collectors in China".



A Toll Collector of Fumin Toll Station was awarded the "Shortlist Prize of Most Beautiful Highway Toll Collector in China"

Shenzhen Expressway understands the significance of the protection of customer privacy. We have established strict confidentiality management systems such as the Measures for the Management of Customer Property, assigning the responsibility of information confidentiality to the relevant personnel. The flow data and original videos about customer passage through highways are kept in toll stations. No individual is allowed to access the flow data and videos about the relevant toll collection without permission. If the public security authorities need to acquire such information for evidence in handling cases, they are required to provide a letter of introduction from their units, a letter on negotiation and relevant certificates, as well as obtain approval from the person in charge.

Shenzhen Expressway has formulated the Procedures for Handling Customer Complaints and the Criteria for Determining Types and Nature of Customer Complaints, which clearly defines the types of customer complaints and the handling methods of different types of complaints, to standardize the customer service and increase the service level. We summarize the complaint handling situation every month, analyze the complaint handling situation of the current month, output the analysis report and report to the whole service chain to continuously improve the service quality. In 2020, the number of rational complaints per 100 thousand vehicles accepted by Shenzhen Expressway was 0.04.



In 2020, all rational complaints accepted by Shenzhen Expressway were handled within the stipulated time, with a rational rate, handling rate and response rate up to **100%**.

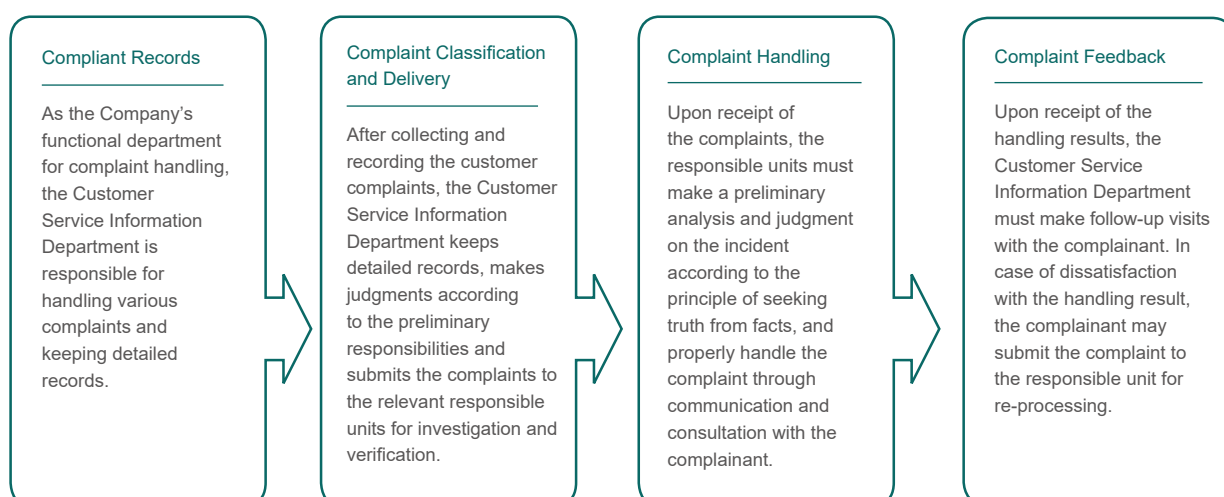
Shenzhen Expressway has established a variety of complaint channels such as by telephone, on-site, petition, media, and competent department, many of which are 7*24 hours service channels. As for complaints on service through channels such as the government and media, Shenzhen Expressway urges for completion of investigations, evidence collection, handling and response within 3 working days and announces the complaint handling results. In terms of the complaints related to toll collection, we require to complete the complaint handling and refund within 8 hours.

Shenzhen Expressway Customer Complaint Channel

Complaint Channel:

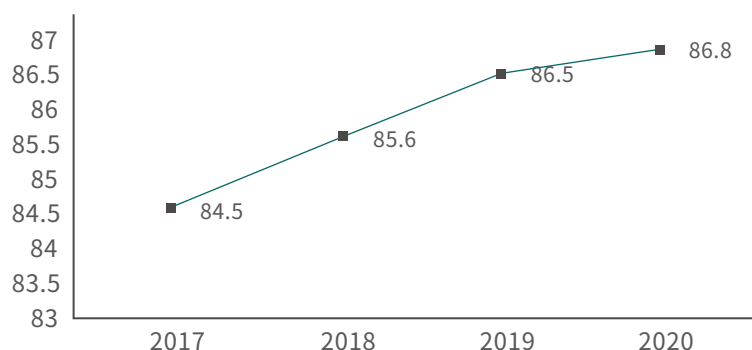
- Customer service 24-hour service hotline (0755-88833118)
- Municipal government complaint service hotline (12345) forward
- The media forwards the complaint (Traffic Desk Service Hotline)
- Shenzhen Expressway Service Website
- Service Hotline of the Ministry of Transport (95022)
- Provincial Communications Department Hotline (96998)
- Yuetong Card Service Hotline (96533)
- Shenzhen Expressway WeChat Official Account
- On-site of charging fees

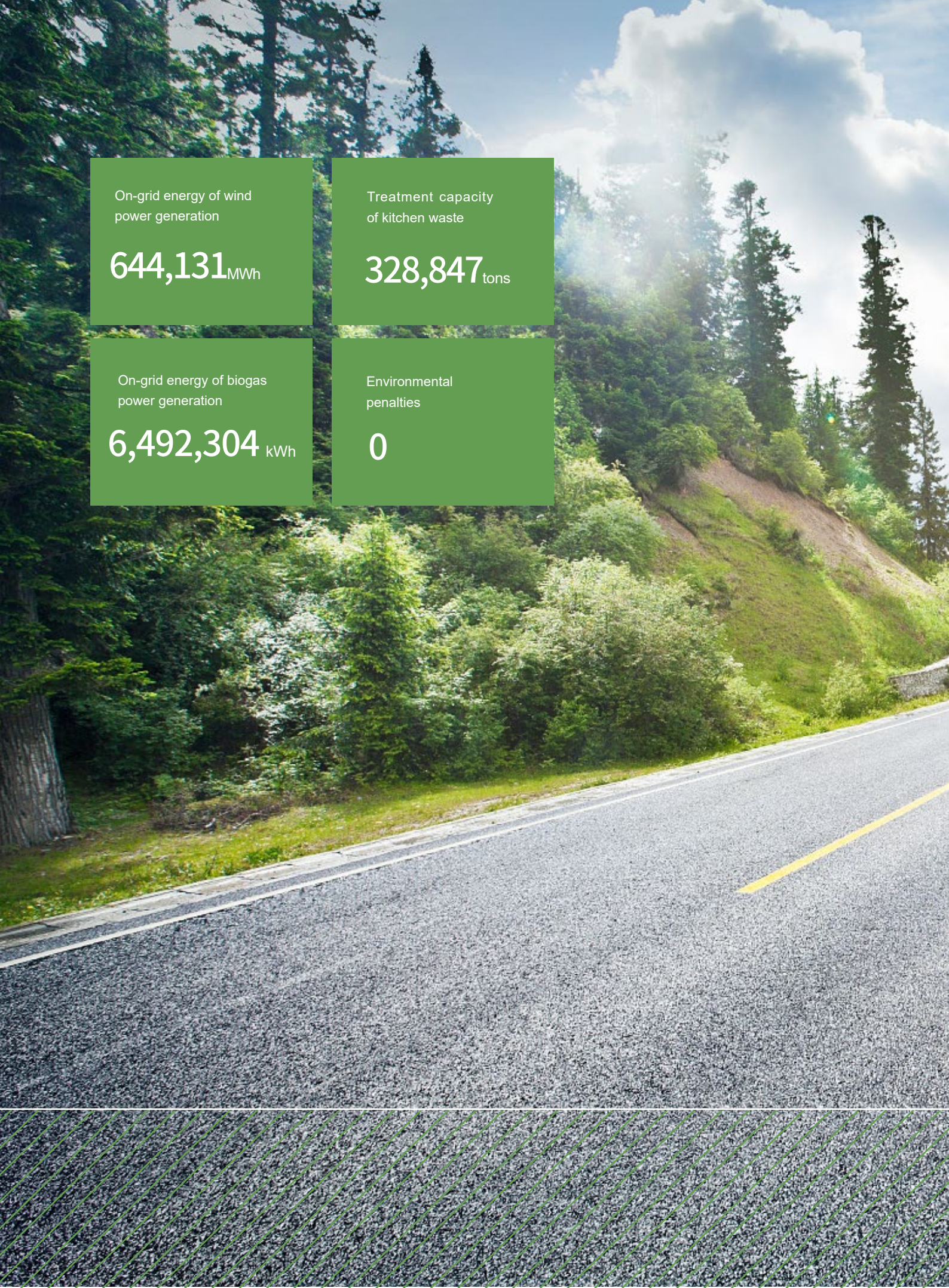
Shenzhen Expressway Procedures for Handling Customer Complaints



Shenzhen Expressway conducts a customer satisfaction survey in Shenzhen every year. In 2020, a total of about 2,300 questionnaires were collected. The survey mainly covered three aspects, i.e. Impression, Quality and Service. The quality and service parts included 10 sub-items respectively. From 2017 to 2020, the overall customer satisfaction index has increased year by year, which shows the achievements of Shenzhen Expressway in continuously optimizing customer service and improving the customer service level.

Shenzhen Expressway Overall Customer Satisfaction Index 2017-2020





On-grid energy of wind
power generation

644,131_{MWh}

Treatment capacity
of kitchen waste

328,847_{tons}

On-grid energy of biogas
power generation

6,492,304_{kWh}

Environmental
penalties

0

03 Protect Our Natural Environment

Shenzhen Expressway aims to promote the unity of economic interests, social interests and environmental interests. We actively promote green and efficient operations through various energy conservation and emission reduction measures; formulate a series of internal management systems according to the requirements of national laws and regulations to effectively reduce pollutant emissions; pay attention to the impact of various businesses on the surrounding natural environment, and incorporate environmental factors into the project planning, to promote harmonious ecology and make a modest contribution to realizing the beautiful scenery of green hills, green waters, blue sea and blue sky.



Green and efficient operation

Shenzhen Expressway actively implements green development and makes good use of resources and energy. We have formulated and implemented the Interim Measures for the Administration of EHS Matters and Information Reporting and the Interim Measures for the Administration of EHS Rewards and Punishments, actively promote the use of clean energy, strengthen energy management and water resources management in multiple dimensions, and promote the construction of a resource-saving and environment-friendly society.

Efficient utilization of resources

Shenzhen Expressway strictly abides by laws and regulations such as Energy Conservation Law of the People's Republic of China and Cleaner Production Promotion Law of the People's Republic of China, and requires all subsidiaries and operating projects to promote green energy management. We are committed to the development and use of wind power generation, replace LED energy-saving lamps, actively take water-conserving measures, and promote green office practices in office operation sites to save energy and reduce emissions and protect the environment.

Data of Resource Utilization in 2020 for Shenzhen Expressway

Resource type	Unit	2020
Power	Kilowatt-hour	57,686,809.0
Gasoline	Liter	502,368.8
Diesel oil	Liter	914,957.6
Natural gas	Cubic meter	120,874.1
Liquid petroleum gas	Kilogram	735.0
Water resources	Tons	1,191,066.6
Utilization density of water resources	Ton/million revenue	148.4
Comprehensive energy consumption ¹	Kilowatt-hour	72,405,955.6
Comprehensive energy consumption density	Kilowatt-hour/million revenue	9,020.6

Note

¹ Comprehensive energy consumption calculation method and relevant conversion factors are selected according to the National Standard of the People's Republic of China-General Principles for Calculation of Comprehensive Energy Consumption (GB/T2589-2008).

In Shenzhen Expressway toll highway industry, the main energy consumption comes from the power consumption of highway lamps. Since 2011, we have continued to replace the existing lamps of Shenzhen Expressway with LED lamps. Compared to the traditional high voltage sodium lamp, LED lamps have the advantages of low energy consumption and low emission. By the end of 2020, a total of 13,000 LED lamps have been used on the highway operated by Shenzhen Expressway, which reduces the annual power consumption by 54.5% compared with the high voltage sodium lamps.



LED lamps lighting



By using LED lamps, about **4** million kWh of electricity is saved every year on highways directly under the jurisdiction of Shenzhen Expressway, which was equivalent to saving about **1,300** tons of standard coal and reducing CO₂ emission by about **3,000** tons.



Case

Shenzhen Expressway improves the proportion of clean energy used in toll highway

- **Oil-to-gas project of asphalt mixing station:** Liquefied natural gas is used in the operation of the asphalt mixing station instead of traditional fuel oil, which reduces the failure rate of equipment and improves the use efficiency of clean energy, playing a role in energy conservation.
- **New-type dump truck:** During construction, we use the new-type dump truck with new energy for operation. Compared to the traditional dump truck with gasoline, it reduces the use of traditional fossil energy and achieves the effect of energy-saving and emission reduction.
- **Automatic spray curing system:** The automatic spray curing system is adopted in the curing process of precast beams, which recycles the used water through the drainage ditch outside the route, thus reducing the construction water consumption and saving water resources.

Shenzhen Expressway actively publicizes the concept of sustainable development to its employees and promotes their awareness of energy conservation and environmental protection. In 2020, we organized a green office activity of "Energy Saving by Me, Green Sharing for All". During the activity, employees watch promotional videos, post publicity materials on energy-saving knowledge and send e-mail reminders, so as to actively establish the employees' awareness of energy saving and guide employees to start from the small things around them, such as saving a drop of water, one-kilowatt hour electricity, a piece of paper, to continuously reduce greenhouse gas emissions.



Case

Shenzhen Expressway green office activity of "Energy-saving by Me, Green Sharing for All"

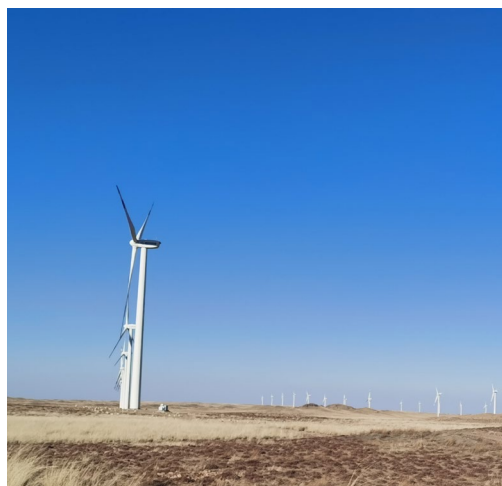
- Office air conditioning refrigeration shall not be lower than 26 degrees, and air conditioning shall be turned off half an hour before leaving work.
- Turn off the lights in time when no one is in the office and reduce the standby time of computers and other electrical appliances.
- Comprehensively promote paperless office, strictly control the number of documents to be printed and trying to modify documents on electronic devices.
- Duplex printing or reutilization of office paper, and use the OA system of the Company to remind employees to pay attention to energy conservation and environmental protection regularly.
- Eliminate the use of disposable paper cups and use mugs for visitors.
- Actively promote the "Clean Plate Campaign" in the canteen, raising the awareness on not to waste food and have a civilized dining culture.
- Establish an audit system for office supplies declaration and purchase office equipment as needed to reduce waste.



Green office activities of "Energy Saving by Me, Green Sharing for All"

Reduce pollutant emissions

Shenzhen Expressway strictly complies with Environmental Protection Law of the People's Republic of China, Air Pollution Prevention and Control Law of the People's Republic of China, Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, Water Pollution Prevention and Control Law of the People's Republic of China, Marine Environmental Protection Law of the People's Republic of China and other laws and regulations related to gas discharge, sewage discharge, solid hazardous and non-hazardous waste disposal, and properly manage the potential impact of operational activities on the environment. In 2020, Shenzhen Expressway did not have any penalties and legal proceedings caused by environmental matters.



Pollutant Emission Data of Shenzhen Expressway in 2020

Pollutant type	Unit	2020
Harmful wastes	Kilogram	3,854.9
Harmful waste density	Kilogram /million revenue	0.5
Harmless wastes	Ton	49,447.9
Harmless waste density	Ton/million revenue	6.2
Total emissions of air pollutants ¹	Kilogram	4,073.7
Nitrogen oxide emission	Kilogram	3,064.5
Sulfur oxide emission	Kilogram	969.1
Particulate emission	Kilogram	40.2
Emission density of air pollutants	Kilogram /million revenue	0.5
Total chemical oxygen demand	Ton	133.9
Total emissions of wastewater	Ton	307,225.3
Total density of wastewater	Ton/million revenue	38.3

Note

¹ The air pollutant emission calculation method is based on the "Appendix 2: Reporting Guidance on Environmental KPIs" by the Stock Exchange of Hong Kong Limited.

Green industry development

Shenzhen Expressway has strategically deployed and expanded environmental protection industry, and gradually focused on the segmentation of organic waste treatment and clean energy. Organic waste treatment industry mainly focuses on providing systematic and comprehensive solutions for municipal organic waste treatment such as kitchen waste and landfill leachate, while clean energy industry mainly consists of wind turbine equipment manufacturing and wind farm power generation industry at present, so as to help build a sustainable and green city.

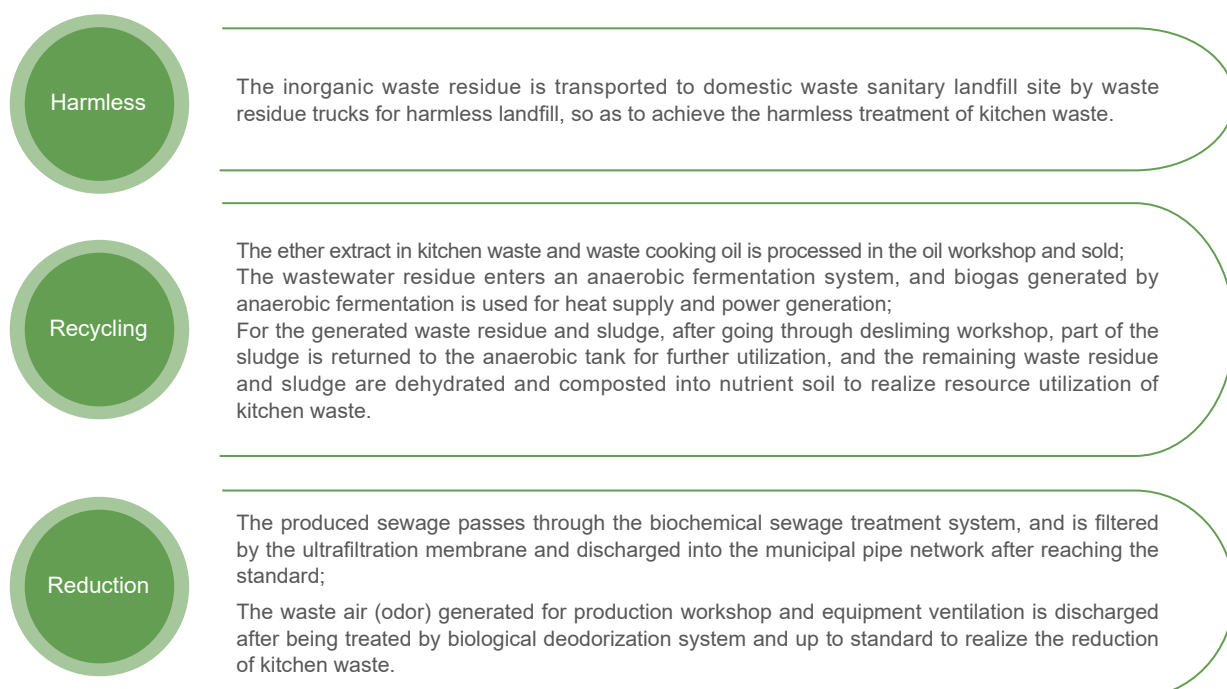
In 2020, the General-environmental Protection Industry achieved:



The clean energy industry utilizes wind energy to generate electricity, which does not produce toxic and harmful wastes, wastewater and other pollutants and has a small need of water resources. Moreover, the service life of wind turbines is long, and spare parts need to be replaced only when they are damaged. After the wind farm is put into operation, we immediately distribute grass seeds around the wind turbines, box transformer substations, outgoing lines and other equipment in strict accordance with the requirements of the environmental supervision department, in order to quickly restore grassland vegetation.

The organic waste treatment industry adopts the process of "collection and transportation of kitchen waste + preprocessing + anaerobic fermentation + sewage biochemical treatment" to meet the three requirements of "harmlessness, reduction and recycling" of kitchen waste.

Harmless, Recycling and Reduction Treatment Measures of Shenzhen Expressway Kitchen Waste





Case

Nanning kitchen waste resource utilization and harmless treatment plant

Shenzhen Expressway undertakes the Project of Nanning Kitchen Waste Resource Utilization and Harmless Treatment Plant by BOT (Building-Operation-Transfer). The Project is constructed in three phases, with a daily treatment capacity of 470 tons of kitchen waste, 50 tons of kitchen garbage and 26 tons of waste cooking oil, and an annual capacity of 170,000 tons of kitchen waste, 18,000 tons of kitchen garbage and 9,500 tons of waste cooking oil. By the end of 2020, the Project has been expanded to phase II, with a daily treatment capacity of 250 tons of kitchen waste and 20 tons of waste cooking oil, and the third stage project (with a proposed treatment capacity of 150 tons of kitchen waste and 400 tons of food waste every day) is under planning. After the third phase of the Project, the comprehensive treatment capacity of organic waste and waste oils and fats will reach 1,000 tons per day.



Nanning Kitchen Waste Resource Utilization and Harmless Treatment Plant

Reduce waste generation

We strictly abide by the regulatory requirements of national and local laws and regulations on solid waste and reduce waste generation.

General-environmental protection industry

Shenzhen Expressway adopts the management mechanism of "who produces, who is responsible", requiring departments that produce solid wastes to select the methods and facilities that meet the requirements of environmental protection to collect, transport, store, utilize and dispose of the generated solid wastes, and take measures to prevent scattering, loss, leakage and any other pollutions. In addition, we actively explore new ways of waste residue treatment: combining with related industries, such as industrial cooperation with aquaculture, using waste residue as feed; the full material anaerobic technology is adopted to increase the biogas output and reduce the waste residue generation.

Project construction management services and other industries

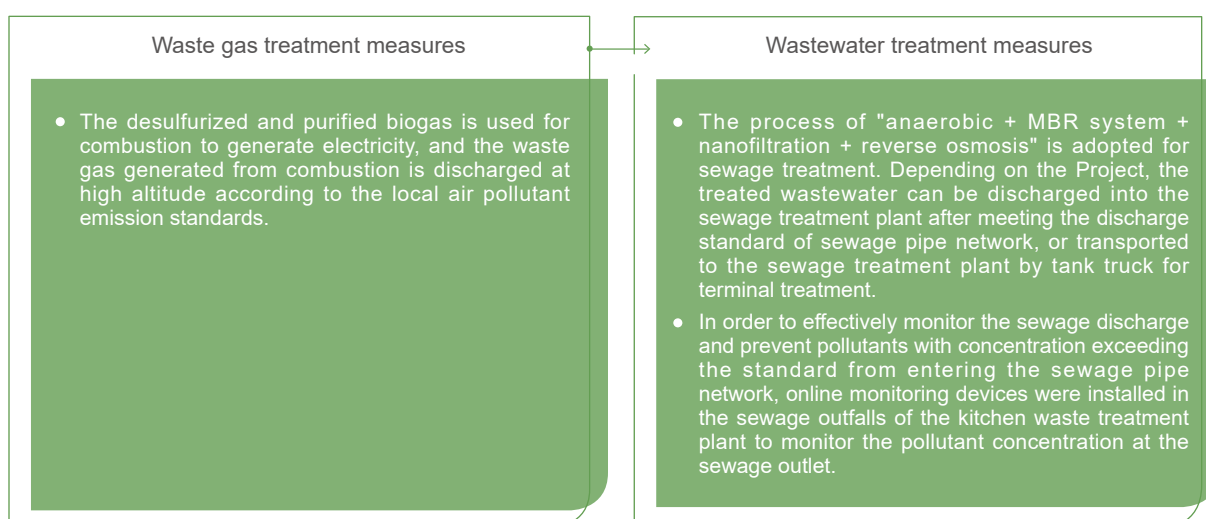
The wastes generated from project construction mainly include construction earthwork, construction wastewater and dust, etc. The project construction management services of Shenzhen Expressway are all subcontracted to construction contractors with specific qualifications. We are committed to complying with environmental regulations in the process of project construction, clarify the environmental standards of construction management by formulating project technical specifications and construction management regulations, and control the environmental violation risks of contractors through contract clauses. In the contract, we specify the requirements of pollution prevention and ecological environment protection on the construction site, and regularly check and assess the contractor's contract performance, so as to ensure that the relevant parties strictly implement the contract requirements and minimize the environmental impact of project construction.

Exhaust gas and wastewater management

Shenzhen Expressway strictly limits its own emissions of exhaust gas and wastewater. According to the characteristics of different industries, we have formulated targeted pollution prevention measures and internal systems such as Sewage Operation Regulations and Desulfurization System Operation Regulations to regulate the treatment and emission of pollutants.

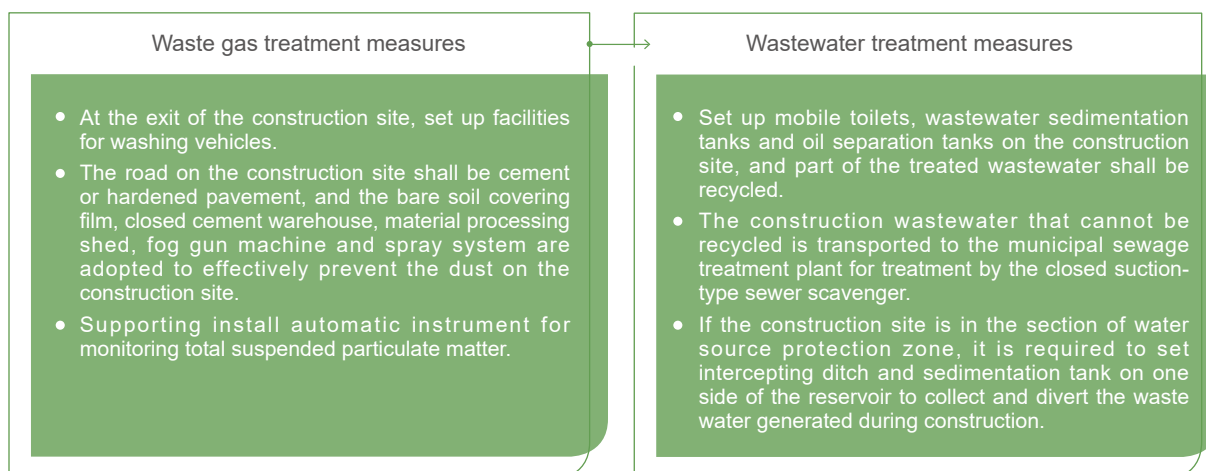
General-environmental protection industry

Kitchen waste will bring odor in the process of collection, transportation and unloading, and the waste gas produced in the process of treatment mainly contains sulfide and nitrogen oxides, which will pollute the air and affect the surrounding air quality if they are not treated before discharging. Wastewater is mainly produced in leachate of kitchen waste incineration plant, biogas slurry produced by kitchen waste and oil-water separation. In 2020, there is no over standard discharge event in the kitchen waste treatment projects of Shenzhen Expressway.



Project construction management services and other industries

In view of the control of dust and suspended particulate matter on the construction site, Shenzhen Expressway requires each construction section to prepare a Special Plan for Prevention and Control of Dust Pollution, which is approved by the third supervision department. In addition, we cover the special expenses for preventing and controlling dust pollution in the project cost and require the construction organization to bear the responsibility for preventing and controlling dust pollution compulsively. The sewage produced in the project construction site includes domestic sewage and construction sewage.



Promote ecological harmony

While seeking the development of enterprises, Shenzhen Expressway attaches importance to the protection of ecological environment. In our business activities, we strictly abide by the Management of Environmental Protection In Capital Construction Project, and other laws, regulations and industry regulations. Based on these, we have formulated the Deodorization Operation Specification, the Third-Party Monitoring Management System and the Interim Measures for Basic Safety Requirements of Construction Projects internally, which standardizes the workflow and operation specifications of all business links to minimize the adverse impact of production and business activities in the surrounding ecological environment.



In 2020, there was no large-scale damage caused by Shenzhen Expressway to the surrounding ecological environment and wildlife under state protection.

Ecological environment protection

Shenzhen Expressway pays close attention to the impact of its own business on the surrounding ecological environment and community life, and takes effective measures at all stages of project planning, design, construction and operation, and is committed to contributing to biodiversity conservation and providing a beautiful and comfortable living and residential environment for the public.

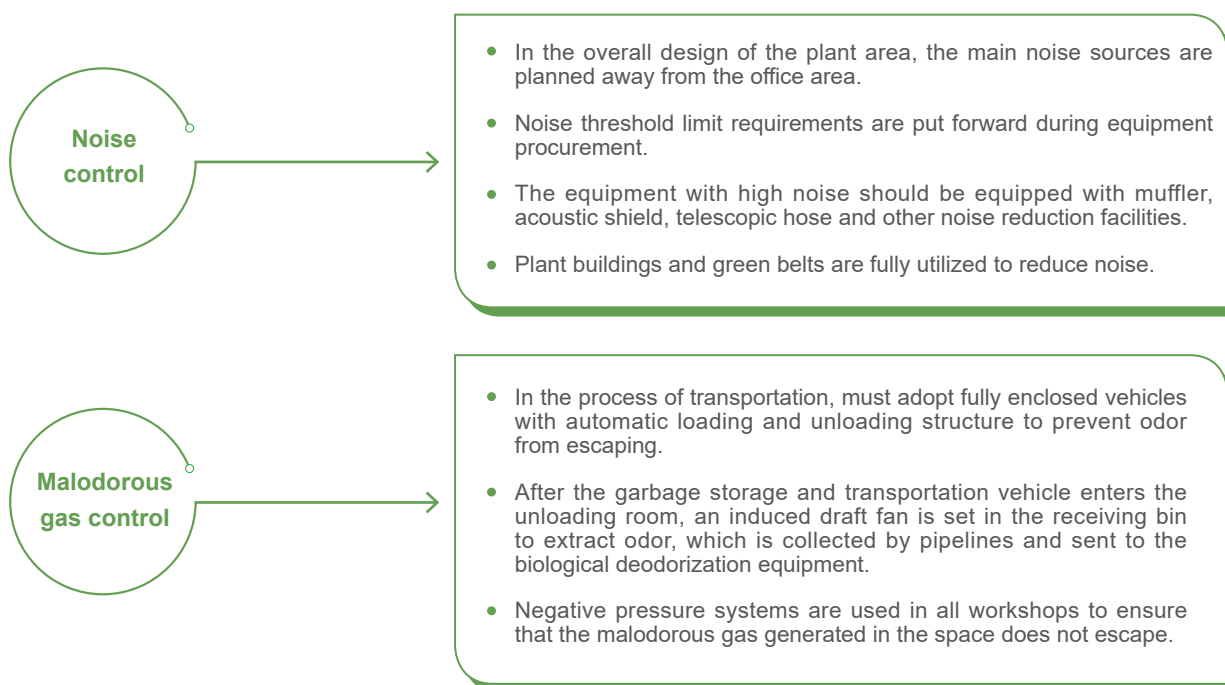
Toll highway industry

In the design stage of the project, Shenzhen Expressway repeatedly demonstrated the project planning, and made clear measures such as building noise reduction pavement, setting sound reduction barrier, installing soundproof window, greening along the road, and strengthening traffic management, to effectively reduce the impact of traffic noise on residents in surrounding communities. In the operation stage of the Project, we strictly implemented the greening rate requirements of the roads within the jurisdiction to ensure that the vegetation growth meets the greening control standards; at the same time, regularly built vegetation related facilities along the highway, interchanges and toll stations, strengthened daily greening maintenance management, and improved the overall landscape quality of the highway.



General-environmental protection industry

The treatment of kitchen waste produces noise and malodorous gas, which will bring potential impact to employees and surrounding residents in the plant area. According to the characteristics of kitchen waste treatment process, we adopted biological deodorization system for control. Compared with other chemical methods, biological deodorization will not transfer pollutants and produce secondary pollution. For noisy equipment, we have taken measures such as vibration reduction, sound insulation and sound absorption to reduce the impact on the environment.



Case Building a green ecological plant for kitchen waste treatment

Guiyang Project actively creates a fresh and comfortable production and living environment for the employees and surrounding residents. There is a green belt between the living area and the production area, and turf is planted around the construction site, structures, both sides of the road and the inner side of the fence, with trees, shrubs, flowers and other plants. Tree species with dust retention and sound insulation shall be planted on both sides of roads and places prone to noise and dust, to form a green space system combining points, lines and surfaces in the plant area. The green area of the site is about 11,118 m².



Guiyang Kitchen Waste Treatment Project

Project construction management services and other industries

Before the construction of the Project, Shenzhen Expressway investigates, predicts and evaluates the possible impact of the Project on the ecological environment according to the EIA report required by the local government, and actively puts forward countermeasures and plans for preventing and controlling ecological damage; in the project construction stage, arranges the construction time reasonably and prohibits the construction at noon and night; in the process of construction, chooses low-noise machinery and reasonably arranges the location and time of construction equipment; keeps construction machinery and equipment away from noise sensitive targets as far as possible, and adopted some isolation and noise elimination measures to reduce the influence of construction noise.

Proper use of land

Highway construction and operation cannot be separated from large-scale land use. Scientific and rational land use planning and reducing the use of farmland, woodland and mountainous areas are effective protection of natural resources. Shenzhen Expressway cherishes every piece of land and carefully operates every highway.

Shenzhen Expressway strictly implements the Law of the People's Republic of China on Soil and Water Conservation and other relevant regulations and entrusts qualified organizations to prepare the water and soil conservation plan before start of the construction project. In the design stage of the Project, we minimize land occupation, and the whole line adopts bridge structure, with bridges accounting for 99%; when the line passes through woodlands and mountains, we use the form of half bridge and half road to try to avoid mountain excavation and damage to the natural ecological environment. In the preparation stage of the Project, we found and stopped illegal land occupation in time by means of inspections, visits and investigations, to ensure zero growth of illegal occupation of red line land.



In 2020, Shenzhen Expressway carried out more than **156** land inspections, and stopped **5** cases of illegal occupation of red line land and **44** cases of illegal construction.



Case

Outer Ring Project actively takes measures to reduce ecological impact

During the route selection of Outer Ring Project, Shenzhen Expressway strengthened the investigation of the surrounding ecological environment to avoid environmental sensitive points such as reservoirs, lakes, urban residential areas and industrial plant areas. In the design stage, we avoided the water source areas of Pankeng Reservoir and Changkeng Reservoir and set up totally enclosed noise screens.



Outer Ring Project

Fighting climate change

With the increase of extreme weather events, global warming and other environmental and climate change, there is an increasing impact on construction, material and equipment selection, vehicle driving safety and so on. Shenzhen Expressway has fully realized that climate change will bring potential hazards and opportunities to every industry and enterprise, which may lead to far-reaching changes.

Reduce greenhouse gas emissions

Shenzhen Expressway regards the general-environmental protection industry as the second core business. We provide clean energy for the society through clean energy industry, reduce the utilization of fossil fuels, and improves the resource utilization of kitchen waste through organic waste treatment business to generate cleaner biogas power. The project construction management services reduce the energy consumption by changing oil to gas in the asphalt mixing station and using new energy dump trucks, thus reducing greenhouse gas emissions.



In 2020, the on-grid power of Shenzhen Expressway wind power generation was **644,131** MWh, equivalent to a reduction of **197,000** tons of standard coal.

Greenhouse Gas Emission Data of Shenzhen Expressway in 2020¹

Resource type	Unit	2020
Greenhouse gas emissions of scope 1	Tons of carbon dioxide equivalent	4,048.2
Greenhouse gas emissions of scope 2	Tons of carbon dioxide equivalent	48,905.8
Total emissions of greenhouse gas	Tons of carbon dioxide equivalent	52,954.0
Density of greenhouse gas	Tons of carbon dioxide equivalent/million revenue	6.6

Note

¹ The calculation method of greenhouse gas emissions is based on the "Appendix 2: Reporting Guidance on Environmental KPIs" issued by the Stock Exchange of Hong Kong Limited.

Climate risk response

Shenzhen Expressway added the identification of climate change risk in the annual risk analysis, analyzed the climate change risks proposed by vehicle drivers, functional departments and business segments, and took a number of measures to deal with potential hazards.

Risk Identification of Climate Change in Shenzhen Expressway in 2020

Physical risk¹

- Bridge construction technology is complicated, and the installation precision of steel girders and steel anchor girders may affect the engineering quality due to the influence of weather factors such as strong wind.
- Extreme weather-climate events such as thunderstorms, rainstorms, hail and clear-air turbulence occur frequently, which will lead to enhanced variation characteristics of severe weather and affects driving safety.
- There are many flammable and explosive facilities in the kitchen waste treatment plant, and increasing thunderstorms may easily lead to fire.
- An earthquake would damage the facilities in the plant, which may cause secondary disasters such as explosion and fire.

Transformation risk²

- In 2020, China proposed to achieve "carbon neutrality" by 2060, which may create policy requirements for energy conservation and emission reduction.
- In order to achieve the long-term goal of the average temperature of the Paris Agreement, governments will implement various policies and regulations, and capital markets and industry associations will follow up, which will bring potential policy and standard compliance risks.
- As the world pays more and more attention to the risk of climate change, enterprises with high energy consumption, heavy pollution and low social responsibility may face the risk of public reputation and public opinion.
- Energy technology innovation incurred by carbon reduction may force the transformation and upgrading of the Company's existing business, which will lead to technical risks and operational risks.

Note

1 Physical risk refers to the impact of environment on entity assets and productive forces.

2 Transformation risk refers to the risk of sudden depreciation of assets caused by laws and regulations supporting the transformation of green economy.



In order to deal with the potential hazards brought by climate change, Shenzhen Expressway has taken corresponding measures for different segments to prevent the occurrence of risks.



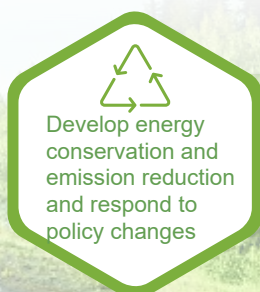
Before preparing the construction plan and schedule, collect the weather forecast in recent years in this area and prepare the corresponding plan. Collect data in real time and adjust the operation plan through the meteorological station set up on the construction site. At the same time, require the supervision organization to appoint professionals on site to sample raw materials in time and carry out flaw detection and inspection on welds.

Cooperate with traffic police, road administration, maintenance, traffic engineering and other departments, pay close attention to weather changes and disaster warnings issued by meteorological departments, appropriately increase patrol density, and ensure the safety and smoothness of highways under severe weather conditions. In addition, strengthen information linkage and release safety instruction through Weibo and WeChat in time according to weather forecast.



When typhoon and flood season comes, start emergency plan, conduct comprehensive investigation of potential safety hazards, strengthen patrols, and reserve enough emergency materials and emergency vehicles.

In order to prevent the harm caused by lightning, install lightning rod and grounding device in the main plant, and install lightning protection grid on the whole roof. The biogas pipeline is also equipped with lightning protection and anti-static grounding devices. The buildings in the plant area are fortified according to the earthquake of Grade 6, with the seismic grade of structural frame as Grade 2 and shear wall as Grade 3.



By adopting various energy conservation and emission reduction measures and investing in new energy industries such as photovoltaics and kitchen waste utilization, meet the requirements of energy conservation and emission reduction and green transformation policies to reduce policy risks.



Newly
recruited
employees

2,555
persons

Total person-times
of employees in
difficulty supported by
Shenzhen Expressway

48
person-times

Proportion of
female employees

40.1%

Total amount for
supporting employees in
difficulty

451,900



04 Adhere to be Employee-oriented

Shenzhen Expressway always adheres to the vision to create an employee-oriented business, to "share the Company's development achievements with employees", and to create a cultural atmosphere of "honesty, diligence, happy work, all-win harmony", effectively protects employees' rights and interests, provides employees with an all-round training system and a competitive salary and welfare system, develops a variety of employee activities, and provides employees with high-quality talent development and growth environment, so as to promote the growth of employees and the Company.



Protection of rights and interests

Shenzhen Expressway strictly abides by the Labor Law of the People's Republic of China, Labor Contract Law of the People's Republic of China, Law of the People's Republic of China on the Protection of Minors, and other relevant laws and regulations. Moreover, Shenzhen Expressway has formulated a number of internal systems such as the Employee Handbook and the Procedure for Management of Labor Contracts to effectively protect the legitimate rights and interests of employees and build good labor-capital relations.

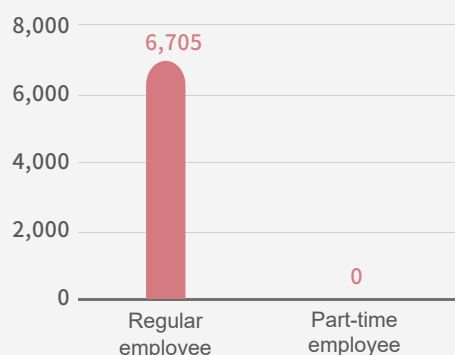
Shenzhen Expressway always practices the people-oriented concept, attaches great importance to the legitimate rights and interests of employees, and provides employees with a fair, healthy, safe and comfortable working environment to the greatest extent. In terms of recruitment, development, promotion and other human resources management, Shenzhen Expressway adheres to the employment principle of "eclecticism, inclusiveness and openness" instead of discrimination with employees' gender, nationality, region and cultural background. In the recruitment process, Shenzhen Expressway checks the identity certificates of the candidates to ensure that they meet the age limit for employment, and doesn't recruit any citizens under the age of 16, to eliminate any form of child labor and forced labor and avoid employment risks. In the employment process, if any employee is found to falsify or conceal his or her age, the Company will cancel the employment contract according to the law and deliver him or her to the guardian with the assistance of the police. In addition, Shenzhen Expressway gives priority to veterans and other groups in terms of some positions such as drivers and highway administration officials. In 2020, Shenzhen Expressway has recruited 2,555 new employees (a total of 6,705 employees at that time), of which 2,689 were female employees, accounting for 40.1%.

Shenzhen Expressway understands the importance to protect employees' rights and interests, therefore establishes the labor union to protect employees' legitimate rights and interests, and signs collective contracts with employees. The Company also carries out special protection for female employees, such as providing paid holidays and condolences for employees during childbirth, organizing related activities and giving flowers during women's holidays, etc. In terms of the employment and protection of rights and interests of migrant workers involved in project construction management services and other industries, Shenzhen Expressway requires the contractors to pay the wage security deposit of migrant workers in advance, and strictly guarantees that the wages of migrant workers are paid in full and on time.

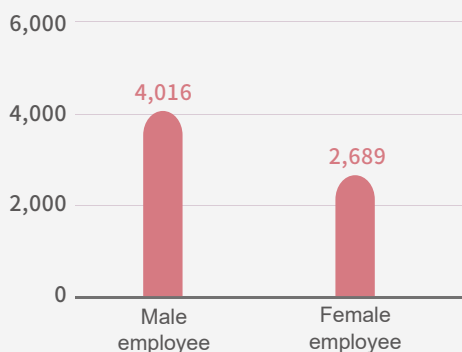


In 2020, no employment of forced labor or child labor occurred in the Shenzhen Expressway.

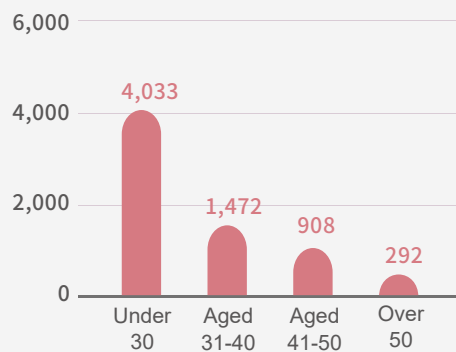
Number of employees by type of employment - persons



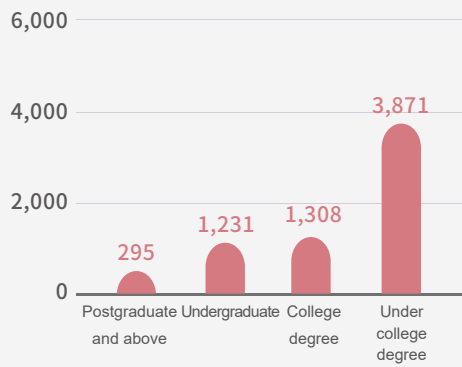
Number of employees by gender - persons



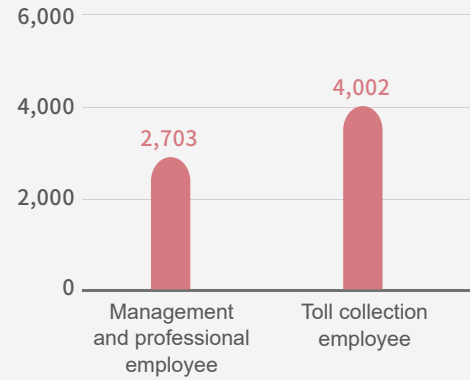
Number of employees by age - persons



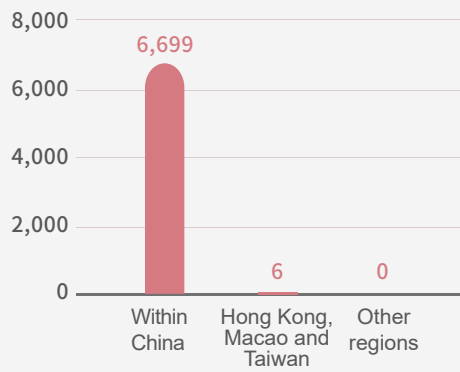
Number of employees by academic qualification - persons



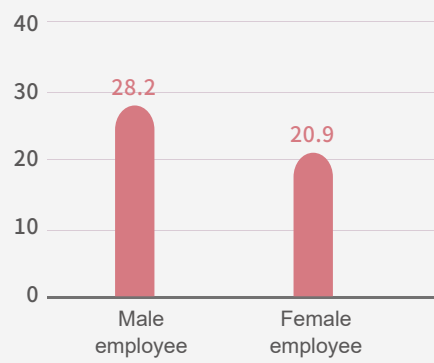
Number of employees by function - persons



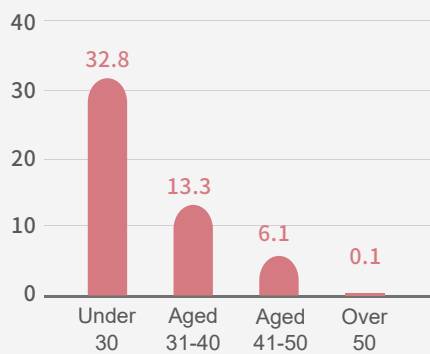
Number of employees by region - persons



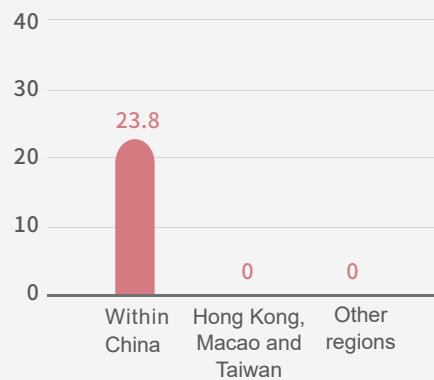
Employee turnover rate by gender - %



Employee turnover rate by age - %



Employee turnover rate by region - %



Training and development

Shenzhen Expressway continuously improves the talent cultivating mechanism, formulates internal systems such as the Measures for Management of Employee Training and the Measures for Management of Employee Position System, comprehensively establishes the Company's multi-level talent training system, encourages employees to exert their potential, and provides a stage for employees with both ability and integrity to fully display their talents.

Employee training

Shenzhen Expressway regards employees as the precious wealth of the Company, continuously enhances employees' knowledge and skills through training, and improves employees' thinking and behavior habits, to achieve the growth of the Company and employees. Shenzhen Expressway insists on integrating theory with practice, applying what it has learned, and stressing practical results, in order to promote the collaborative improvement of employee and organizational performance. Shenzhen Expressway specifies the detailed procedures for training in the Measures for Management of Employee Training, so as to provide all employees with training meeting their job requirements.

Shenzhen Expressway regularly analyzes the training demands of employees, divides the training content into knowledge training, skills training and cognitive training, adopts diversified training methods, formulates comprehensive training plans, builds a sound training system, and enhances employees' personal quality and workability, to achieve better growth of the Company and employees.

Shenzhen Expressway Employee Training System



For employees in different stages and positions, Shenzhen Expressway customizes training programs to meet individualized demands.

Shenzhen Expressway Customized Training

Trainee	Training measures
 New employees	<ul style="list-style-type: none"> It includes training courses such as "development training" and "special training on enneagram"; While publicizing and spreading the corporate culture, help new employees identify their characteristics, to maximize the advantages and specialties of employees.
 Professional employees	<ul style="list-style-type: none"> Organize a series of professional skills improvement training activities, which covers training courses in professional fields such as "project construction", "financial management", "safety management" and "information technology".
 Senior management or above	<ul style="list-style-type: none"> Organize "leadership improvement" training in famous universities to improve the leadership and general management ability of the management of the Company.

Shenzhen Expressway encourages and supports employees to improve their academic qualifications and obtain professional qualifications. The Company actively participate poverty alleviation in education, carry out cooperation with major universities, and provide support and assistance for employees with financial difficulties to receive further education; continuously pay attention to the career development and vocational ability training of employees, and provide various talents for the development of the Company.



Case

Shenzhen Expressway actively participates in the poverty alleviation in education themed on "Dream Project"

Shenzhen Expressway actively participates in the poverty alleviation in education-themed "Dream Project" for outstanding employees, grassroots front-line employees, employees in difficulty and unemployed persons, carries out cooperation with 12 key universities such as Renmin University of China, Beijing Foreign Studies University, Xi'an Jiaotong University, Southwestern University of Finance and Economics, and Shandong University, and provides the supported persons with more than 100 further education opportunities of junior college and undergraduate, such as human resources management and finance. In 2020, Shenzhen Expressway has provided a subsidy of about 350,000 for about 70 supported persons.



Shenzhen Expressway Employee Training Data in 2020¹

Employee training type		Unit	2020
Total number of trainees		Person-times	261
Total training hours		Hour	2,004
Total investment in training in 2020		RMB	95,235
Number of new employees trained in 2020		Person	54
Number of employees trained	Number of male employees trained	Person-times	128
	Number of female employees trained	Person-times	133
	Number of management and professional employees	Person-times	261
Average duration of employee training	Average training hours of male employees	Hour	8.2
	Average training hours of female employees	Hour	7.2
	Average training hours of management and professional employees	Hour	7.7

Note

¹ The training data is only for the training organized by the Human Resources Department of the headquarters.

Career development

Shenzhen Expressway has formulated the Measures for Management of Employee Recruitment, the Measures for Selection and Appointment of Management, and the Measures for Management of Employee Competition for Employment, which states the principles of "open recruitment, giving priority to internal recruitment, fairness and justice", and standardizes all links such as preparation before recruitment, formulation of recruitment plan, resume screening, interview process and results feedback, to continuously optimize the recruitment management level. In addition, Shenzhen Expressway has formulated the Measures for Management of Employee Position System and the Measures for Management of Professional Title and Qualification Examination, which clarifies the position management of employees, to encourage employees to participate in professional title and qualification examination, continuously improve their ability and work level, and build a sound and broad career development channel for employees.

Shenzhen Expressway adheres to a market-oriented talent introduction mechanism, attaches importance to retaining outstanding talents, and continuously expands the talents team by cultivating and selecting talents within the Company. Meanwhile, Shenzhen Expressway continuously implements the internal rotation mechanism of employees, establishes a reserve talents team, optimizes the management of employees' qualifications, helps employees plan their careers scientifically and rationally, and provides effective support for employees in their career development. In addition, according to the professional ability and performance of employees, Shenzhen Expressway helps employees further define their quality development goals, selects outstanding personnel to form the reserve talents team, and provides corresponding vocational counseling and training to reserve talents for the Company's development.



Welfare and care

Shenzhen Expressway cares for employees, provides competitive salaries and welfare for employees, creates a safe and pleasant working environment, and encourages employees to relax and explore their interests and hobbies after work. Shenzhen Expressway attaches importance to close communication with employees, listens to employees, and helps employees maintain physical and mental health and work-life balance.



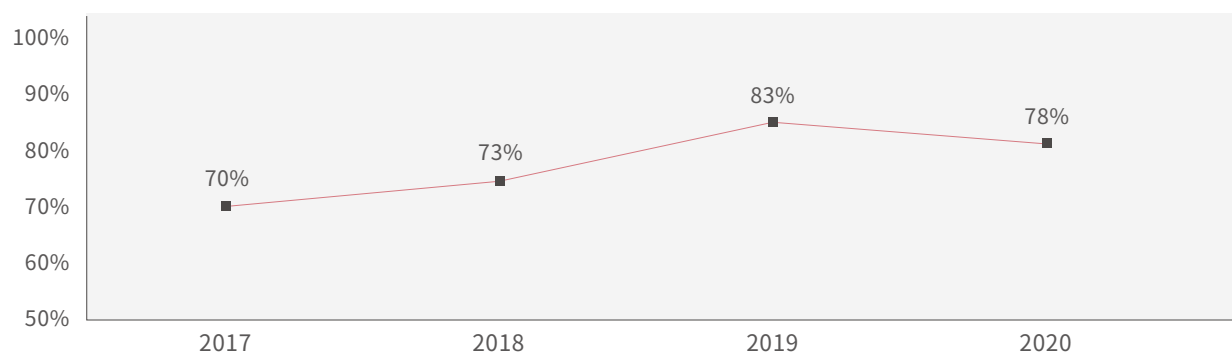
Communication with employees

Shenzhen Expressway establishes a bridge of communication between the management and employees through labor unions, employee symposiums, employee satisfaction surveys, etc. to better understand the employees' demands.

Shenzhen Expressway carries out employee satisfaction surveys annually from four aspects of job duties, job rewards, work team and corporate management. Since the implementation of the employee satisfaction survey, the results of employee satisfaction have been continuously improved. In view of issues frequently reported by employees, Shenzhen Expressway has taken targeted measures, such as annual adjustment of employee salary according to the Company's performance, and bench-marking of salary market, to achieve long-term incentives and restraint mechanism; optimized the salary management system and promotion channels for employees, and actively responded to the concerns of employees, to effectively protect employees' rights and interests.

In addition, Shenzhen Expressway regularly conducts grass-roots investigation every year, to collect opinions and suggestions from all employees through on-site discussion and proposal solicitation. In 2020, a total of 43 effective proposals have been solicited, and follow-up and rectification of issues have been conducted to address the actual demands of employees.

Shenzhen Expressway Overall Employee Satisfaction from 2017 to 2020



Employee welfare

Shenzhen Expressway has formulated the Management Procedures for Remuneration and Benefits, which clarifies that the salary and welfare of employees include position salary, performance bonus, and statutory and corporate welfare. Based on the principle of "defining salary by positions and changing salary by positions", Shenzhen Expressway determines the salary of employees according to the market value of positions and the comprehensive performance of employees, to reflect the Company's principles of "taking strategy, market and performance as the guidance and giving consideration to internal and external fairness". Shenzhen Expressway has implemented a long-term incentive plan based on incremental benefits for top & senior management and main backbone talents, which aligns interests of shareholders, the Company and operators concisely, efficiently and directly, in order to motivate employees in a diversified way.

According to the relevant regulations of the local department, Shenzhen Expressway pays five insurances and one housing fund for employees on time, and also pays supplementary pension for the management and the main technical personnel regularly, to make employees further share the achievements of the Company's development, guarantee the living standards of employees when they retire, and establish a long-term trust relationship between the Company and employees. In addition, Shenzhen Expressway has set up an employee mutual fund to support employees who suffer from major illness or unintentional injury. As of 2020, Shenzhen Expressway has supported employees who fell on hard times 48 person-times, with a total investment of 451,900.

Shenzhen Expressway provides employees with diversified, 24-hour and all-round welfare and personalized care, actively carries out various team building activities, sports activities and cultural activities, strives to maintain employees' physical and mental health and work-life balance, promotes the proper balance between work and rest, and creates a harmonious atmosphere.

Shenzhen Expressway Provides Employees with 24-hour and All-round Welfare

24-hour welfare

Offer employees, free of charge, with breakfast, lunch and dinner, as well as fruit snacks and other catering services during the "Afternoon Tea".

All-round welfare

Care for special group	Holiday care	Health care
<ul style="list-style-type: none"> Offer employees paid leave and consolation during their childbirth; Offer hardship subsidy for employees who fell on hard times once a year. 	<ul style="list-style-type: none"> Send warm wishes and birthday cake cards to employees on their birthdays; Send flowers and organize relevant activities on women's day; Offer gifts to employees on the New Year's Day, Spring Festival, May Day, Dragon Boat Festival, Mid-Autumn Festival, and National Day. 	<ul style="list-style-type: none"> Organize regular physical examination of employees every year; Organize visits and offer consolation to sick employees in hospital; Buy blood pressure meters and body fat scales for employees.



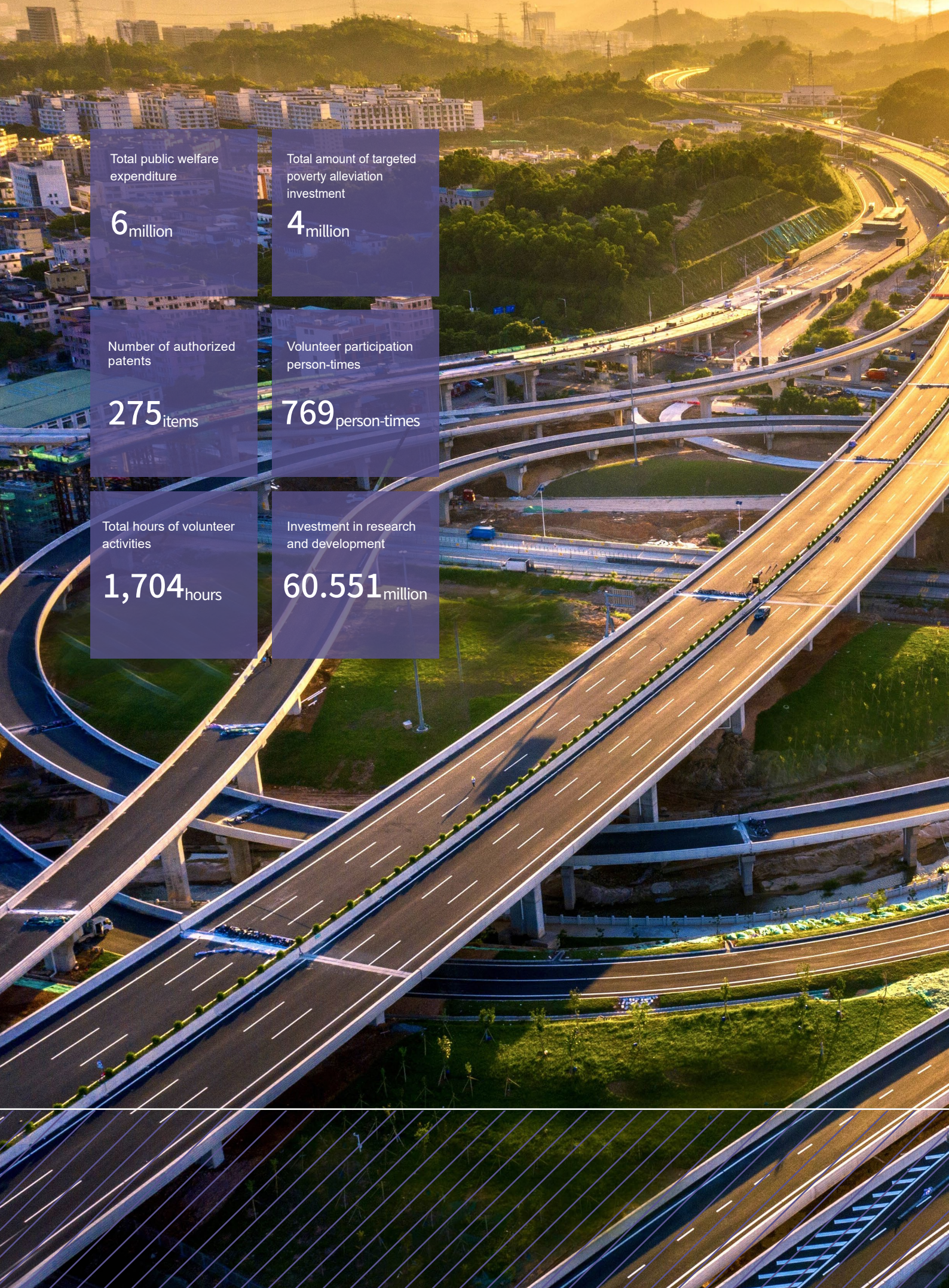
Case

Outer Ring Running Activity" in 2020

To further enhance employees' physical fitness and let them relax, the labor union of Shenzhen Expressway held a sports activity themed on "Outer Ring Running - Lead the Way" in December 2020, where more than 300 employees attended.



"Outer Ring Running Activity" Organized by Labor Union of Shenzhen Expressway in 2020



Total public welfare expenditure

6million

Total amount of targeted poverty alleviation investment

4million

Number of authorized patents

275items

Volunteer participation person-times

769person-times

Total hours of volunteer activities


1,704hours

Investment in research and development

60.551million



05 Strive Towards a Collaborative Development



Shenzhen Expressway paid great efforts to scientific and technological innovation, and always insists on common development with its partners. By improving the supply chain management system and integrating the concept of sustainable development into the management of suppliers, we can build a responsible supply chain and promote the green development of the industry. At the same time, Shenzhen Expressway does not forget to assume corporate social responsibility, and continuously pays attention to charity and contributes to community development.



Technological innovation

Shenzhen Expressway pays attention to technological innovation, and constantly innovates the fields of engineering specialty and the research and application of smart transportation. It also strengthens investment in research and development of environmental protection technologies, and continuously improves the green transformation capability and sustainable development level of companies. We protect our intellectual property rights from infringement by others, and resolutely do not infringe on others' intellectual property rights. There are no lawsuits related to intellectual property rights this year. By the end of 2020, Shenzhen Expressway had accumulated 275 authorized patents. Among them, 17 patents were granted in 2020.



In 2020, the investment in research and development of Shenzhen Expressway is **60.551** million.

Toll highway industry

Shenzhen Expressway keeps up with the development trend of the new infrastructure era, uses the Internet and other technical means to empower transportation development and actively promotes the research and application of smart transportation. The demonstration section of "Outer Ring Smart Highway Pilot" of the Outer Ring Project establishes an outer ring expressway comprehensive monitoring system through the application of big data, cloud computing and other technologies, to realize the dynamic and integrated monitoring and prediction of highway network operation status, real-time vehicle operation, traffic events and traffic environment, and improve the operation and management level and public travel service ability. The reconstruction and extension of Jihe Expressway plans to integrate AI, big data, Internet of Things and other advanced technologies to build Smart Vehicle Infrastructure Cooperative System and smart service area management system, which will become "Smart Jihe", realize automatic driving, and provide smart services for the public, government departments and road management units.



Effect Drawing of Reconstruction and Extension of Jihe Expressway

General-environmental protection industry

Shenzhen Expressway actively carries out technological innovation research in the field of environmental protection. In 2020, the investment in research and development in the field of environmental protection was about 22.32 million. The main innovative research and development achievements include multi-source organic waste joint anaerobic research, water treatment and nitrogen removal process test device construction and process research and development, 2.2 MW and 2.5 MW wind turbine optimization design and certification, testing, 4.5 MW wind turbine development and design, 3.XMW wind turbine development and design, wind turbine tower load measurement system research and development.

Supply chain management

Shenzhen Expressway adheres to a supply chain management concept of fair trade, honesty, mutual benefit and win-win situation, cherishes the opportunity of cooperation, exchange and common growth with every partner, and always strives to build a responsible supply chain, and puts forward selection requirements for suppliers from environmental protection materials, energy conservation and emission reduction, safe construction, green construction and other aspects, to promote suppliers to improve their sustainable development performance.

Improve supply chain management

Shenzhen Expressway has many industries, involving many types of suppliers, such as material and equipment suppliers, construction contractors, design units, supervision institutions and consulting institutions. Adhering to the principles of openness, fairness and impartiality, we have formulated the Outsourcing Management Control Procedure and the Management Measures for Alternative Libraries of Outsourcing Parties of Construction Companies in strict compliance with the Tendering and Bidding Law of the People's Republic of China and the Measures for Tendering and Bidding of Construction Projects, as well as various requirements of State-owned Assets Supervision and Administration Commission for bidding and purchasing of state-owned companies, and standardized the requirements for supplier management.

Number of suppliers of Shenzhen Expressway in 2020

Supplier location	Unit	2020
China	Home	1,125
Other countries and regions	Home	31

Shenzhen Expressway strictly abides by national laws and regulations such as the Anti-Corruption and Bribery Law of the People's Republic of China and Criminal Law of the People's Republic of China, actively strengthens the building of clean and honest governance, improves the anti-corruption mechanism, and promotes the institutional mechanism of "not daring to corrupt, not being able to corrupt and not wanting to corrupt". We abide by business ethics and seek cooperation and common development with other suppliers.

We standardize and uniformly manage the processes of access, cooperation, termination and withdrawal of all kinds of suppliers, protect the rights and interests of suppliers, and at the same time promote suppliers to complete the contract performance with high standards and high quality. In order to ensure the effective operation of supply chain management, Shenzhen Expressway builds a supply chain management system, which strictly controls the warehousing standards of suppliers, and conducts dynamic and standardized management of supplier information base.

Evaluation Contents of Shenzhen Expressway Contractors in Different Stages

1

Contractor evaluation and access

- After the bidder submits the bidding documents, the qualification examination shall be carried out in strict accordance with the requirements of the bidding documents.
- The evaluation criteria include a series of expressly stipulated scoring standards such as engineering guarantee system and measures, quality and safety guarantee system and measures, and environmental protection and civilized construction guarantee system and measures.

2

Project cooperation of the contractor

- By implementing the access and change management of key equipment, materials and personnel, the project cooperation content is always consistent with the contract terms.
- Evaluate the contractor's contract performance by carrying out various inspection activities such as monthly, quarterly, various quality and safety projects.
- Carry out credit rating on the contractor's contract performance every year.

3

Completion and withdrawal of contractor




- For contractors whose service quality was assessed as average in the previous year, they will be removed from the corresponding categories in the contractor library, and shall not be included within two years; for contractors with poor evaluation, they shall not be included in the contractor library within three years.

Build responsible supply chain

Shenzhen Expressway actively promotes the concept of sustainable development in the whole supply chain management. In the whole cooperation cycle from supplier evaluation to exiting, sustainable development considerations are integrated into each stage, which encourages suppliers to continuously improve their sustainable development performance and promote the green development of the industry.

Supplier risks, like other risks, are regularly assessed and identified according to the Company's risk assessment process, including supplier's breach of trust and default risk, supplier price risk, information leakage risk and settlement risk, etc. The Risk Management and Legal Department are responsible for preparing the group's overall risk report including supply chain risks, which are reviewed and determined by the board of directors.

Shenzhen Expressway Supplier Environment and Work Safety Management Process

Supplier management stage	Green environmental protection requirements	Safety production requirements
 <p>Contractor evaluation and access</p>	<p>Rules for bidding scoring items include:</p> <ul style="list-style-type: none"> Scientific measures can be formulated, the construction can meet the requirements of environmental protection, corresponding measures can be taken for civilized construction, and a good construction environment can be created. Make relevant measures for environmental protection and civilized construction of the Project. 	<p>Rules for bidding scoring items include:</p> <ul style="list-style-type: none"> Set reasonable safety objectives. Have a clear understanding of potential hazards in construction and have relevant countermeasures.
 <p>Project cooperation of the contractor</p>	<p>Environmental protection materials and equipment requirements:</p> <ul style="list-style-type: none"> The contractor is required to use environmental protection materials that are conducive to environmental protection, saving materials and materials, saving water and water resources, saving energy and energy utilization, saving land and land resources for green construction. <p>Environmental protection requirements in construction stage:</p> <ul style="list-style-type: none"> Establish environmental protection system during construction. Environmental protection measures shall be taken for temporary roads, temporary facilities, subgrade construction and bridge construction on site. Do a good job in prevention and control of construction dust pollution. Management of water source protection areas. 	<ul style="list-style-type: none"> Require the contractor to establish and improve the work safety guarantee system and strictly implement various rules and regulations. Implement dynamic safety management such as safety education and safety activity records. Civilized construction is required, and monthly inspections on work safety work such as engineering projects and construction electricity consumption are carried out in cooperation with Shenzhen Expressway. Prepare and submit Safety Production Monthly Report to local highway engineering quality supervision station. Participate in various work safety inspections organized by government departments.
 <p>Withdrawal of a contractor</p>	<p>After the completion of the project, the contractor is required to fully restore the land temporarily occupied during the construction period, such as the construction road, residence, material yard, mixing yard and construction site, according to the principle of "destroying a place then restoring the place".</p>	<ul style="list-style-type: none"> It is required to restore the roads and sites occupied by construction to eliminate potential hazards. Hand over and archive safety facilities and data on time. Handle exit formalities of relevant personnel, equipment and facilities in time.

Social contributions

Shenzhen Expressway continues to focus on activities such as targeted poverty alleviation, voluntary services and community care, which promotes the interaction between companies and society, bringing long-term benefits to the community, and promotes the rapid development of community economy and society.



By the end of 2020, Shenzhen Expressway had invested a total of **6** million in public welfare activities, with **769** volunteers participating and **1,704** hours of volunteer activities.

Targeted poverty alleviation

Shenzhen Expressway actively responds to the strategic call of the country to eliminate poverty and overcome difficulties, and resolutely fulfills the social responsibility of state-owned companies. Since 2016, Shenzhen Expressway has deeply participated in the counterpart poverty alleviation project in Xinmin Village, Heyuan City, Guangdong Province and has carried out many in-depth investigations on poverty alleviation villages to understand the village conditions and public opinions, jointly explore ideas for poverty alleviation, and improve the quality of poverty alleviation in a multi-pronged manner. Since the implementation of the assistance work, Shenzhen Expressway has donated 4 million to help the poor, fully demonstrating the responsibility and responsibility of state-owned companies. By the end of 2019, the collective income of Xinmin Village in Heyuan had increased from 36,000 to 357,000, and Xinmin Village had realized that 62 households with 145 registered poverty-stricken people had all reached the poverty alleviation standard.

Shenzhen Expressway helps Xinmin Village in Heyuan: targeted policy implementation and poverty alleviation

The Shenzhen Expressway Poverty Alleviation Resident Team visited the poor households in Xinmin Village, Heyuan many times, listened to their voices, understood the causes of poverty, and adopted a series of poverty alleviation measures according to the policy of the households:

Relieve people from hardship.

In view of the poverty-stricken households due to illness and school, measures such as opening major disease relief procedures, increasing the reimbursement rate of medical expenses, and granting education subsidies to students in school are taken to help solve the poverty situation;

To improve income levels of the poor.

Actively organize poor households to participate in labor skills training, and improve the income level of poor households with comprehensive measures of "state-owned dividends+ industrial dividends+ breeding development+ industry+ worker settlement";

Provide national health services.

For poor households with physical and mental disabilities who cannot work, they can get lifelong protection;

Warm people's hearts.

Improve the living conditions of poor households by rebuilding or repairing houses, renovating facades, renovating tap water and offering holiday condolences.

Through multi-angle and all-around assistance, the annual per capita disposable income of poor households has been improved, and all the registered poor households in the village have reached the poverty alleviation standard.

1. Optimize the "hematopoietic" function of poverty alleviation industries

Shenzhen Expressway gives full play to its advantages, introduces advanced marketing thinking to continuously improve the operating efficiency of tea cooperatives in Xinmin Village, Heyuan, and enhances the brand recognition of tea cooperatives. In 2020, when tea production in most areas of Heyuan decreased, Xinmin Village maintained its original output and achieved better operating income.



Shenzhen Expressway employees go to poverty alleviation villages to carry out research work

2. Improve the mechanism to improve the work effect

Shenzhen Expressway introduces performance management model in poverty alleviation work, which helps the two committees to build mechanism, strengthens the team and manage the long term, and assists Xinmin village cadres to learn from the weekly meeting system of companies and make collective decisions to study village affairs, which effectively improve the theoretical accomplishment and work efficiency of all village cadres.

3. Carry forward the "pioneering" spirit in Shenzhen

Shenzhen Expressway encourages poor households to take active employment by holding training courses, leading poor households to attend job fairs, and holding symposiums on ideological mobilization.



Shenzhen Expressway employees go to the homes of poor households to conduct interviews

Public welfare and charity

In order to promote the common development with local communities, Shenzhen Expressway actively communicates with the community people, and actively carries out various charitable activities, including caring for vulnerable groups and volunteer actions, to bring long-term benefits to the community and promote economic and social development of the community. In 2020, Shenzhen Expressway donated 6 million to Hubei Province and other severely affected areas, and encouraged employees to participate in voluntary services such as voluntary blood donation, voluntary tree planting, hairdressing and beautification of the environment, to continue to give love to the community.



Employees actively participate in afforestation volunteer activities



Volunteer activities of drivers and conductors

Employees actively participate in voluntary blood donation activities



Public welfare and charity

Pavement cleaning public welfare activities



Case Lei Feng spirit accompanies volunteers to show love

In March 2020, Shenzhen Expressway Operation Company, Qinglian Company and Yichang Company respectively set up volunteer service teams, organized and carried out activities such as voluntary haircut, watching Lei Feng's documentary film, epidemic prevention and disinfection of recreational and cultural facilities around the community, voluntary tree planting, etc. adhering to Lei Feng's "volunteer spirit" and giving selfless dedication to the society.



Tree planting activities with the theme of "planting green hope and building beautiful Yichang Expressway"



Leisure and cultural facilities carry out voluntary activities for all-round epidemic prevention and disinfection

Case Shenzhen Expressway carries out voluntary labor of "pruning green plants, removing weeds and beautifying the environment"

In March 2020, the management center along the Yangtze River of Shenzhen Expressway organized employees to carry out voluntary labor of "pruning green plants, removing weeds and beautifying the environment" to actively create a clean, tidy and comfortable working and living environment for community residents.



Employee volunteers remove weeds in green belts

About the report

Introduction to this report

The Company issued the Environmental, Social and Governance Report 2020, aiming to provide the Company's information on environmental, social and governance (ESG) regularly and systematically to shareholders and investors, local governments and regulatory agencies, employees, customers, drivers and passengers, partners and suppliers, media and the public, local community residents and other relevant parties, in order to strengthen the understanding and contact between various stakeholders and the Company.

Reporting cycle

The reporting cycle is annual. This report is the first environmental, social and governance report and the twelfth social responsibility report issued by the Company.

Reporting time

This report covers the year 2020, from 1 January, 2020 to 31 December, 2020. Considering the continuity and comparability of the disclosed information, some information contents should be extended forward and backward as appropriate.

Reporting scope

The organization scope of this report is Shenzhen Expressway Co., Ltd. and its consolidated subsidiaries.

Preparation basis

This report is prepared in accordance with the Guidelines for Reporting Corporate Social Responsibility (《公司履行社会责任的报告编制指引》) issued by the Shanghai Stock Exchange and "Appendix 27 Environmental, Social and Governance Reporting Guide of Main Board Listing Rules" issued by the Stock Exchange of Hong Kong Limited ("HKEx"), focusing on the responsibilities and practices of the Company in operational development, environmental protection, employee growth, cooperation and win-win, etc. The report adheres to the principles of materiality, quantitative and consistency.

Reference description

For the convenience of presentation, in this report:

"Shenzhen Expressway", "the Company", "Company" and "We" all represent Shenzhen Expressway Co., Ltd. and/or

its subsidiaries;

"Corporate headquarters" refers to Shenzhen Expressway Co., Ltd. and its subsidiaries directly managed in Shenzhen.

"Jihe Expressway" refers to the expressway from Shenzhen International Airport to He'ao in Shenzhen City, comprising Jihe East (Qinghu to He'ao) and Jihe West (Airport to Qinghu).

"Outer Ring Project" refers to the project of Shenzhen section of Outer Ring Expressway in Shenzhen City (Outer Ring Expressway), among which, the section from the north side of Shenzhen Waterlands Resort in Bao'an District (connecting with Coastal Expressway) to the interchange of Shenshan Expressway in Longgang District (excluding Dongguan section) referred to as Section A of Outer Ring. Among them, the 35.67 kilometers from Shajing to Guanlan and the 15.06 kilometers from Longcheng to Pingdi, totaling approximately 51 kilometers (referred to as Outer Ring Phase I), have been opened for operation on November 29, 2020.

"Yichang Project" refers to the expressway from Yiyang to Changde in Hunan (Yichang Expressway) and Changde connection line.

Unless otherwise specified in this report, the monetary currency shall be the Chinese yuan.

Approval

The report was approved by the board of directors of the Company on 24 March, 2021.

Publication way

This report can be viewed and downloaded from the website of the Shanghai Stock Exchange <http://www.sse.com.cn> (Chinese version), the website of the Stock Exchange of Hong Kong Limited <http://www.hkexnews.hk> (Chinese/English version) and the website of the Company <http://www.sz-expressway.com> (Chinese/English version). For further inquiries, please contact us by fax (86)755-82853411 or e-mail ir@sz-expressway.com.

Environmental, Social and Governance Reporting Index

Aspect, General Disclosure and KPI	Description	Relevant Chapters
A1: Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Exhaust gas and waste water management
KPI A1.1	The types of emissions and respective emissions data.	Reduce pollutant emissions
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and where appropriate, intensity (e.g. per unit of production volume, per facility).	Fighting climate changes
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Reduce pollutant emissions
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Reduce pollutant emissions
KPI A1.5	Description of measures to mitigate emissions and results achieved.	Reduce pollutant emissions
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Green industry development Exhaust gas and wastewater management
A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials	Green and efficient operation
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Efficient utilization of resources
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Efficient utilization of resources
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Efficient utilization of resources
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Efficient utilization of resources
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable
A3: The Environment and Natural Resources		
General Disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	Promote ecological harmony
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Ecological environment protection

Aspect, General Disclosure and KPI	Description	Relevant Chapters
B1: Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Protection of rights and interests
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	Protection of rights and interests
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Protection of rights and interests
B2: Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Safety assurance Safety enhancement
KPI B2.1	Number and rate of work-related fatalities.	Safety assurance
KPI B2.2	Lost days due to work injury.	Safety assurance
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Safety enhancement
B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Employee training
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Employee training
KPI B3.2	The average training hours completed per employee by gender and employee category.	Employee training
B4: Labor Standards		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	Protection of rights and interests
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor.	Protection of rights and interests
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Protection of rights and interests

Aspect, General Disclosure and KPI	Description	Relevant Chapters
B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Improve supply chain management
KPI B5.1	Number of suppliers by geographical region.	Improve supply chain management
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Improve supply chain management
B6: Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Safety Assurance Customer service
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
KPI B6.2	Number of products and service-related complaints received and how they are dealt with.	Customer service
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Technological innovation
KPI B6.4	Description of quality assurance process and recall procedures.	Highway Quality
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Customer service
B7: Anti-corruption		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Improve the management system
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Anti-corruption
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Improve the management system Strengthen the education on integrity
B8: Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Not disclose
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	Public welfare and charity
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Public welfare and charity

Survey Feedback Form

Dear readers:

Thank you for reading this report! This is the Environmental, Social and Governance Report 2020 issued by us. We very much hope that you can evaluate this report and put forward your valuable opinions to help us make continuous improvement.

If you have any opinions or suggestions on the Company's environmental, social and governance work, please email ir@sz-expressway.com.

Feedback Form of Opinions on Environmental, Social and Governance Report 2020 of Shenzhen Expressway Co., Ltd.

Name _____

Company _____

Position _____

Tel. _____

E-mail _____

Your evaluation of this report: (please tick in the corresponding position)

	Great	Good	General	Poor	Very poor
1. Do you think that this report highlights the important information of the Group on environment, society and governance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Whether the information and indicators disclosed in this report are clear, accurate and complete?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Do you think it is clearly legible with the content arrangement and style design of this report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Which part of the report are you most interested in?					
5. What other information do you think is not reflected in this report?					
6. What suggestions do you have for our future release of Environmental, Social and Governance reports?					



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